



Water on Demand Pro Stand Alone

Mechanical & Electrical Installation



Layout

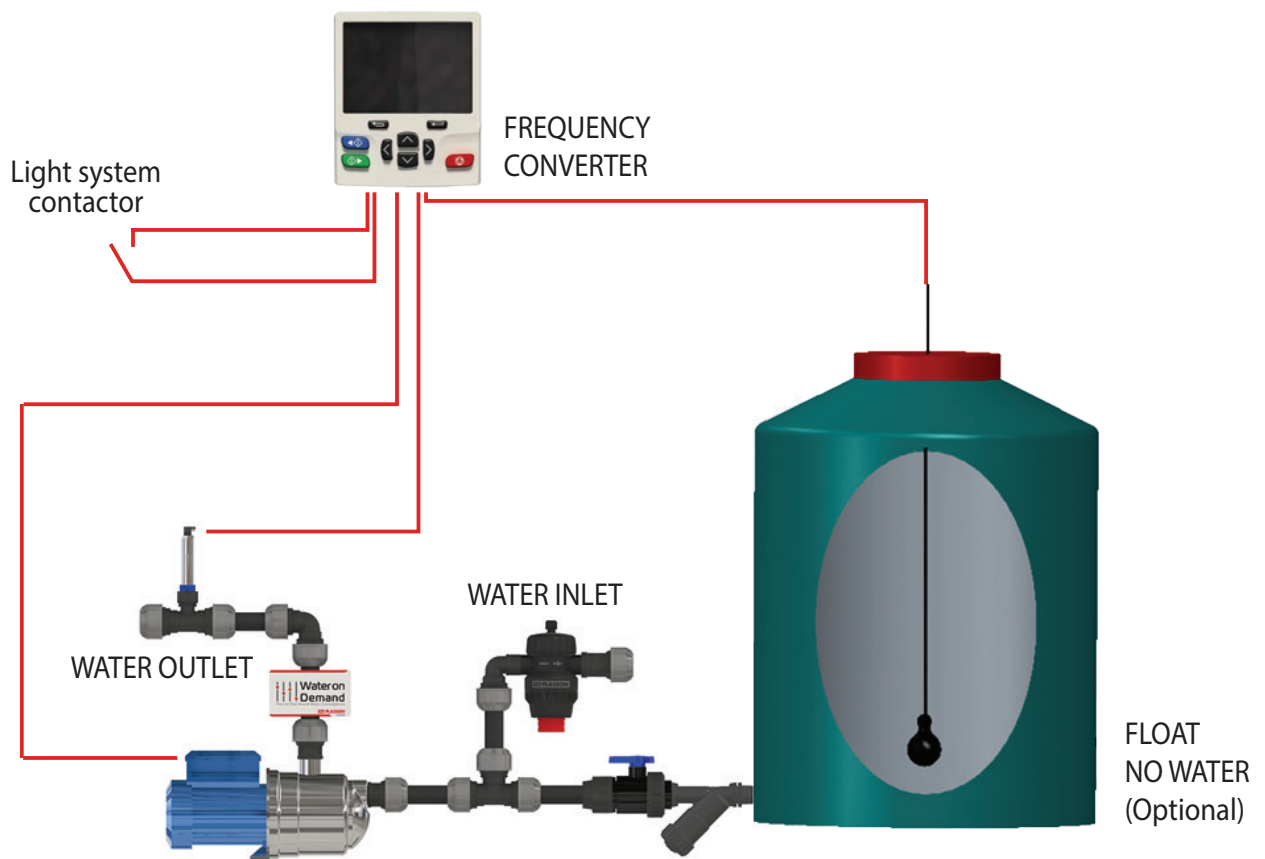
PLASSON WOD Pro with Stand Alone controller

PLASSON Item No. 02205469*

PLASSON WOD Pro with a Stand Alone controller controls the pressure and water flow in all nipple lines in the house without the need to connect to the main house controller.

The system automatically maintains the programmed pressures so the correct water flow is supplied in the nipples through out the day and the entire grow period.

* System is designed for houses populated up to 40.000 birds.



System requirements

1. 1x16A 220V Socket or direct connection from the main electricity board
2. Dry contact N.O from the lights contactor (when lights are turned on the contact is shut)
3. Water supply at 0.5-4.0 Bar and minimal flow rate of 5 M³/hour
4. Dry contact from the flushing system (optional)

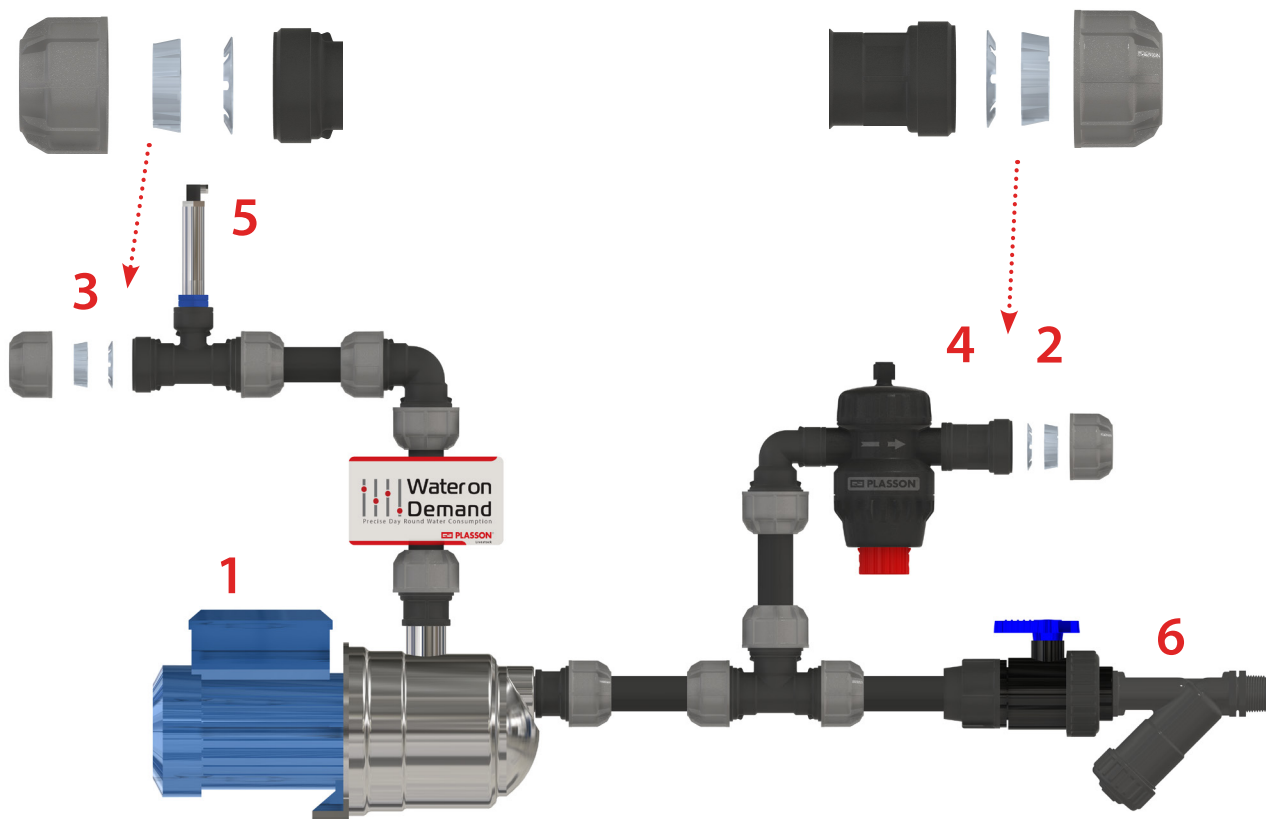
Mechanical Installation

- Assemble the pump and pipes according to the drawing bellow
- Install the system on the water pipe leading to the Nipple lines, as close as possible to the entry of water into the house (after all filters, medicator, etc.)

1. Place the pump (No. 1) on the floor.
2. Connect water inlet pipe (No. 2)*.
3. Connect water outlet pipe 32 mm (No. 3)*.
4. Universal Pressure Regulator (UPR)
5. Assemble the pressure transmitter (No. 5).
6. Connect to water tank inlet (No. 6).

While system is disconnected from main water supply, ensure pump is not running when tank is empty.

* For PVC pipes: assemble with metal ring. For PP pipes assemble without metal ring.



Electrical Installation

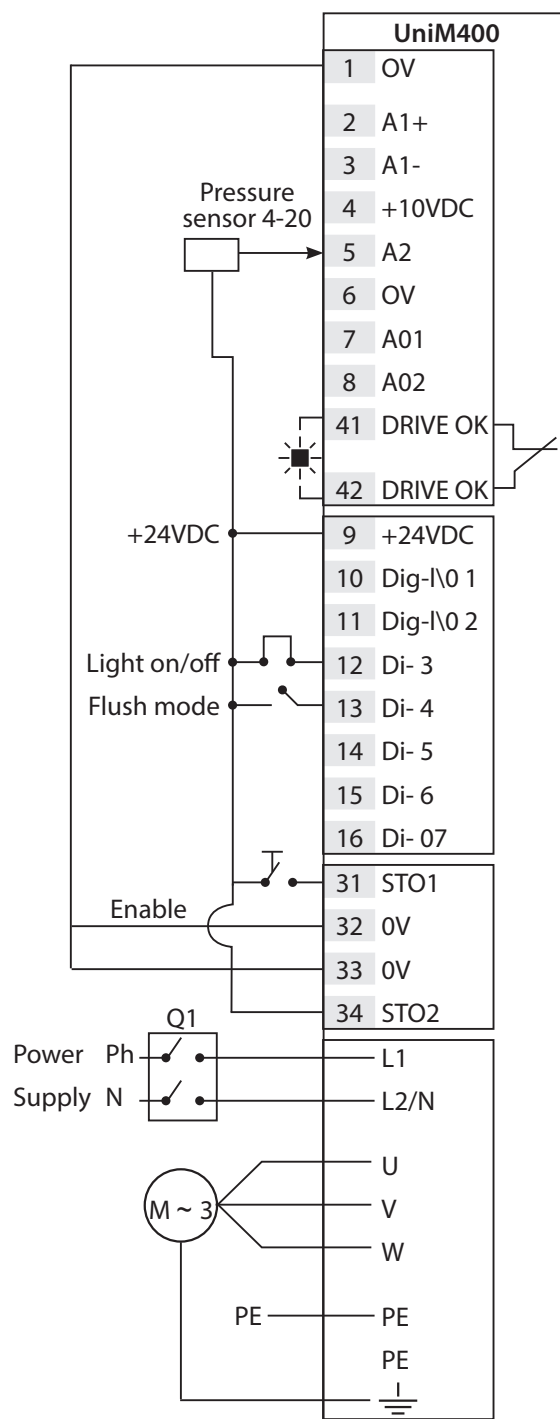
Installing The Frequency Converter and Pressure Transmitter

1. Install the frequency converter on the wall close to the pump, at eye level.
2. Install the pressure transmitter on the water pipe leading to the Nipple lines, as close as possible to the entry of water into the house (after all filters, medicator, etc.), Maximum distance allowed from pump and pressure transmitter to the Frequency Converter - 12 meter).

The system's components are already wired.
Connect the Frequency Converter to the pump and to the power supply.



Warning:
**Do not operate the
pump without water**



Before Running

1. Set the UPR pressure to 0.5 Bar.
2. Release any air from the pump (air should be released after connecting to water supply and before pump is switched on). To do so, open the bolt at the top of the pump until all air is released.
3. Run the pump for a short time and check whether the pump is rotating in the correct direction (building up pressure).
If not, replace the wires between the U and V on the frequency converter.

Automatic Mode

- Setting the different pressures in the watering lines by programing exact values throughout the entire grow period.
- The controller will create a linear graph according to 4 pressure values set by the user (see example table below). The system will follow the pressure graph and automatically supply the programmed pressure for every day.
- During the night (when the lights are off) the system will maintain water pressure of 10cm (water will be directed to the system through the UPR - the pump is turned off).
- A pressure "Boost" is available for peak consumption hours by programing the desired pressure increase in percentage. The "Boost" will take place as soon as the lights are turned on. The user can program on which growth day the "Boost" will start. This function can be changed and turned off at any time.
- Automatic Flushing system (if installed) will work normally.
- The controller is supplied with a default pressure graph ready to be used.

Manual Mode

In Manual mode the system will maintain the programmed pressure during the whole day and through the changing flows due to bird's water consumption.

- Automatic Flushing system (if installed) will work normally.
- During the night (when the lights are off) the system will maintain a minimal water pressure of 10cm (water is directed to the system through the UPR - the pump is turned off).

Operational Instructions

Programing the system is done through the WOD controller itself.

Main display is refreshed every 15 sec. and shows the growth day and the pressure in the watering lines. In manual mode the display will show "Man".

UP / DOWN buttons are used to navigate through the system parameters.

First press on "ENTER" button will allow editing the parameter. Second press on "ENTER" button will save and exit the parameter.

To go back to the main screen press the "ESC" button.



An initial programing is required while using the system for the first time. All parameters can be changed at any time. The "Growth day" needs to be updated when starting a new flock. After the first programing and after any changes the parameters must be saved as shown in parameter 00.000

The system can work and display parameters in both Inches and mm according to the user choice.

An independent clock is integrated in the system, therefor all parameters and the time are not affected by electricity break-down.

Parameters Table

Parameter No.	Display	Parameter Units	Notes	Default
00.000	No Action	Save Data	See saving instructions in "Parameters" section below	No action
00.001	Growth Day Point 1	Day	Set 1st point on pressure graph - Enter growth day	10
00.002	Growth Day Point 2	Day	Set 2nd point on pressure graph - Enter growth day	15
00.003	Growth Day Point 3	Day	Set 3rd point on pressure graph - Enter growth day	22
00.004	Growth Day Point 4	Day	Set 4th point on pressure graph - Enter growth day	35
00.005	Pressure Point 1	cm/Inch	Required pressure for 1st point on pressure graph	10
00.006	Pressure Point 2	cm/Inch	Required pressure for 2nd point on pressure graph	15
00.007	Pressure Point 3	cm/Inch	Required pressure for 3rd point on pressure graph	22
00.008	Pressure Point 4	cm/Inch	Required pressure for 4th point on pressure graph	35
00.009	Boost Pressure	%	Boost increased in % (compared to the existing pressure)	0
00.010	Boost Time[Min]	Min.	Boost duration (starts when lights are turned on)	0
00.011	Boost Start Day	Day	Set the growth day that boost application becomes active. Value "0" cancels Boost application	0
00.012	(Not in Use)			
00.013	Update Growth Day [dd]	Day	Enter growth date	
00.014	Manual Select	On/Off	ON=Manual mode / OFF=Automatic mode	Off
00.015	Manual Pressure Set Point [cm]	cm/Inch	Pressure value on manual mode	0
00.016	Flush Speed	Hz	Pump frequency during lines flushing	0
00.017	Convert Units	On/Off	On - Inch / Off - cm	Off
00.018	Divider	50	Reduction ratio for pressure reducer in line head	50
00.019	Time	hh:mm:ss	Current time	00:00:00
00.020	Calibrate Time	Remote Keypad/Set	Set the clock	Remote Keypad
00.021	Required Pressure		Display the daily required pressure	
00.022	Program Version		Display program version	8
00.023	Load PLASSON Default	On/Off	Chose "On" to load Plasson default parameters	Off

Parameters

00.000 - Saving Data.

This parameter saves the data to the controller memory. The saved parameters will remain in the controller after any electricity break-down.

Saving is done as follow:

- Press ENTER ("No Action" will blink)
- Press "UP" ("Save Parameter" will blink)
- Press ENTER
- Press the red button (display will go back to "No Action")

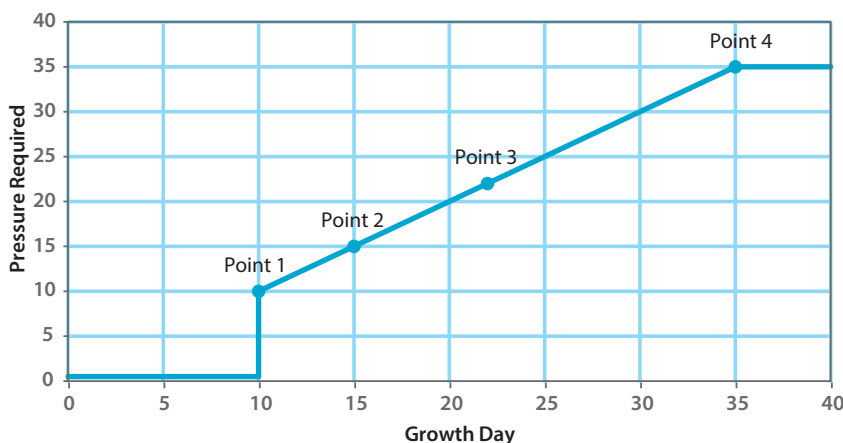
00.001 - 00.008 -

Programing the system pressure graph for the entire grow period.

Set 4 points to create the graph:

- Point 1: the first growth day the system will follow the graph. Any days before that the system will supply water through the UPR
- Point 2 and 3: growth days during the grow period
- Point 4: the last growth day the system will follow the graph. Any days after that the system will continue supplying the pressure as programmed in point 4
- 00.001 - 00.004: enter growth days for points 1-4.
- 00.005 - 00.008: Enter pressure values for points 1-4.

Growth Day / Required Pressure



00.009, 00.010, 00.011 -

Boost - increased pressure during high consumption hours.

When lights are turned on the system will increase the water pressure in the lines by X% (parameter 00.009) above the daily pressure (as programed in the pressure graph). The boost will last X min. (parameter 00.010) and then go back to the daily programed pressure.

The system will activate the boost from the growth day set in parameter 00.011. before that day the boost application is not active.

00.013 - Updating growth day.

Updating the growth day is most commonly used when starting a new flock (though it can be done at any time). Once growth day is updated the system will follow the pressure graph and supply water accordingly.

00.014, 00.015 - Manual Mode.

To use the system in Manual mode switch parameter 00.014 to "ON", then enter the pressure value (in cm/inches) in parameter 00.015 - the system will maintain this pressure.

00.016 - Setting pressure for flushing.

When the flushing system is activated the controller will increase the pump RPM. The user can program the frequency (HZ) value in which the system will flush the lines.

Enter the required value in parameter 00.016: Min=0, Max=50.

For ideal flushing set the system to maximum pressure.

00.017 - UOM Cm / Inch.

User can choose the UOM (unit of measure) to operate the system.

Choose "OFF" - for Metric units

Choose "ON" - for Inches units

00.018 - Reducer ration for the line head.

The system is supplied in its default ratio - 1:50. To change reducing ratio enter required value in parameter 00.018.

Note: it is highly recommended to keep the system default. Contact PLASSON team for further details.

00.019, 00.020 - Clock.

To set the controller clock:

- In parameter 00.020 press "ENTER" ("Remote Keypad" will blink), press the down arrow until "SET" appears then press "ENTER".
- In parameter 00.019 press "ENTER", set the time using the up & down arrows then press "ENTER" again.
- In parameter 00.020 press "ENTER" ("Set" will blink), press the up arrow until "Remote Keypad " appears then press "ENTER".

00.021 - Display of required pressure.

This parameter is for display only of the required pressure.

00.022 - Software Version.

This parameter is for display only of the software version.

00.023 - Default pressure graph.

To load PLASSON default pressure graph switch parameter 00.023 to "ON". This will upload the data to the controller. Other parameters such as time and growth day are not affected by this action.

For different values than the default, user must set parameters 00.001-00.008 and save the data in parameter 00.000.

Default Pressure Table.

Growth Day	Pressure in Watering Lines (cm)
10	10
15	15
22	22
35	35