



## Models 42630 & 42631 Par-Max 1

### AUTOMATIC WATER SYSTEM PUMP AND MANUAL DEMAND PUMP FEATURES

- Self-Priming
- Dry Running
- Automatic Operation 42630-2900
- Manual Demand 42631-2900
- Meets U.S.C.G. Electrical Requirements

### SPECIFICATIONS

- Motor:** Permanent Magnet, Thermally Protected, Intermittent Duty.
- Pump:** Two chamber opposed double diaphragm design: Self-priming up 10 4 ft. suction lift: Pump **able** to run dry without damage; Intermittent dUty.
- Port:** Pump housing inlet and outlet are **3/8"** hose barb.

Pump Series	Dimenslons - Inches (mm)			Weight Lb. (kg)
	Height	Weight	Length	
42630-2900	2.28 (58)	3.5 (89)	6.37 (162)	<b>1.3</b> (0.60)
42631-2900	2.28 (58)	3.5 (89)	5.37 (136)	1.2 (0.55)



### OPERATION FOR WATER SYSTEM PUMPS

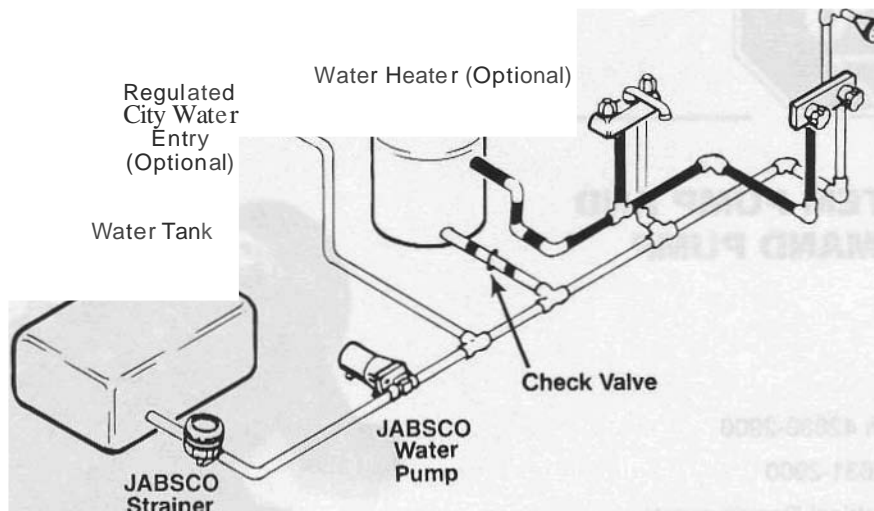
The JABSCO Par-Max 1 series pumps are available as automatic and manual demand pumps. The 42630-2900 **will** automatically turn on when a fixture is opened and turn off when all fixtures are closed. The 42631-2900 is a manual demand pump for use with an electric faucet.

When starting up an automatic demand pump with a completely dry system, allow time for the demand pump to fill the system. Open a faucet, allow air to vent and close faucet when water flow is steady. Faucet strainers and aerators should be cleaned regularly.

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MODEL	VOLTS	AMP DRAW @ 10 psi (0.7 bar)	FUSE* REQUIRED	FLOW GPM (min.)	PRESSURE SWITCH psi	
					ON	OFF (BAR)
42630-2900	12V dc	1.9	4A	1.1 (4.3)	22 (1.5)	35 (2.4)
42631-2900	12V dc	1.9	4A	1.1 (4.3)	No pressure switch	

## AUTOMATIC WATER SYSTEM INSTALLATION



## MANUAL WATER SYSTEM INSTALLATION

BLACK (-)

LF-12  
PUMP

4A FUSE/BREAKER

RED (+)

Required  
for SA  
Certification



BATTERY

## INSTALLATION

1. Remove shipping caps from pump ports. Some water from factory testing may spill out.
2. Mount pump vertically, with pump head down or horizontally in an accessible location. Do not compress feet with mounting screws.
3. Use 3/8" 1.0. flexible hose (preferably braided or reinforced). Use hose clamps on the **slip-on** hose barb connectors.
4. Install a Jabsco inlet 40 mesh strainer in an accessible location (for inspection and cleaning) between the tank and pump inlet. This strainer or equivalent is required for pump **warranty** to be valid.

In an easily accessible location, install a switch to control electricity to the pump. Turn the pump off when not in use for extended periods, when traveling or when tank is out of water.

A 4 amp fuse should be installed in the **positive** lead with the pump being its only load.

**Wire** size based on total wire length, both positive and negative leads.

0-30ft_	#16AWG
0-60ft.	#14 AWG
0-80ft.	#12 AWG

## TROUBLESHOOTING

**WARNING: BEFORE SERVICING PUMP, TURN OFF PUMP AND DRAIN WATER FROM SYSTEM!**

### Problem

Pulsating Flow - Pump cycles on and off

Failure to Prime - Motor operates, but no pump discharge

Motor Fails To Turn On

Pump **Fails** to Turn Off After All Fixtures Are Closed

Low Flow and Pressure

### Solution

Restricted pump delivery. Check discharge lines, fittings and valves for clogging or restrictions.

1. Restricted intake or discharge line. Open all fixtures. check and clean clogged lotioe strainer.
2. Air leak in intake line
3. Punctured pump diaphragm (water leak)
4. Defective pump check valve
5. Crack in pump housing
6. Debris **in** check valves

1. Pump switch in off position
2. Pressure switch failure
3. Loose wiring connection
4. Defective motor
5. Blown fuse
6. Thermal overload (lei cool)

1. Water tank is empty
2. Discharge Hne leak
3. Defective pressure switch
4. Punctured pump diaphragm (water leak)

1. **Air** leak at pump intake
2. Accumulation of debris inside pump and plumbing
3. Worn pump bearing (excessive noise)
4. Punctured pump diaphragm (water leak)
5. Defective motor

## SERVICE

### Pressure Switch Replacement

1. Remove cap on front of switch and remove the two spade connectors and wire leads.
2. Remove two switch mounting screws and lift switch off pump head.
3. Remove sealing a-Ring and teflon diaphragm (white disk).
4. To replace switch reverse these steps starting with inserting teflon diaphragm, then a-Ring seal before **fitting** new switch in place.  
Take care when replacing screws not 10 strip out threads in plastic pump housing.

### Check Valve and Diaphragm Replacement:

1. Remove 5 screws from top or bottom of pump. But not both top and bottom at the same time. Pry cover loose and lift straight up.
2. Remove spring and inlet valve. Lift front of diaphragm up and remove outlet poppet and smaller spring.
3. Clean the seats and seals **and** replace them back as they were.

NOTE: Service beyond this is not recommended without factory instructions. \_

## PAR-MAX 1 PUMP SERVICE PARTS LIST

Description	P.rt	42630-2900	42631-2900
	Number		
Pump head Repair Kit	42632-0000	X	X
Motor/Housing Kit	42633-0000	X	X
Pressure Switch Assy.	42634-0000	X	

## STRAINERS

Pump <b>Series</b>	Strainer Number	Inlet	<b>Outlet</b>	Screen
42630-2900	36400-0001	3/8 Barb	3/8 Barb	40 Mesh
42631-2900	36400-0001	3/8 Barb	3/8 Barb	40 Mesh

Jabsco



**ITT Industries**  
*Engineered for life*

THE PRODUCTS DESCRIBED HEREIN ARE  
SUBJECT TO THE JABSCO ONE YEAR LIMITED  
WARRANTY, WHICH IS AVAILABLE FOR YOUR  
INSPECTION UPON REQUEST.

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For technical advice or service please take your pump into your local pump service center.  
To order pump or parts or for pricing please go to the following links :

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