

Spectra Watermakers MK2 programming adjustments

A good troubleshooting tool is to review the function of all system sensors using the display to view the program settings and sensor readings. Typically if a sensor reading will change in real time (turn the pump off manually and watch the pressure drop for example) there is a calibration issue.

To enter the "Programming From the Display" mode you want the display to say "Spectra Watermakers A-xx", then press both the bottom buttons on the display at exactly the same time and hold for 5 seconds (it may take a few tries to get it). The display will change to "System Units Imperial".

You can scroll through the settings by pushing the display button.

The number displayed on the left side of the screen is the sensor reading that will be displayed and the number on the right is the calibration adjustment. Adjustments are made with the top two buttons with Auto Run lowering the setting and Auto Store raising the number.

MPC-5000 default settings NP400 MK2

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

SYSTEM UNITS:	Imperial
FLOW SENSOR TYPE:	Rotoflow
PRESSURE RANGE:	Low
DISABLE AIR LOCK:	No
DISABLE PREFILTER:	No
DISABLE SALINITY:	No
DISABLE PRESSURE:	No
PPM THRESHOLD:	748
LOW VACUUM LIMIT:	10
PRESSURE LIMIT:	150
FLOW CONSTANT:	25000 Only change this if it needs adjustment
SALINITY CAL:	60 Only change this if it needs adjustment
INLET OFFSET:	0.00
OUTLET OFFSET:	0.00
BRIGHTNESS:	0
FLUSH DURATION:	5
PUMP ON TIME:	300
PUMP OFF TIME:	0
FLUSH INTERVAL:	120
CLEAN PRESSURE:	15

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s).

MPC-5000 default settings NP700 MK2

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

SYSTEM UNITS:	Imperial
FLOW SENSOR TYPE:	Rotoflow
PRESSURE RANGE:	High
DISABLE AIR LOCK:	No
DISABLE PREFILTER:	No
DISABLE SALINITY:	No
PPM THRESHOLD:	748
LOW VACUUM LIMIT:	10
PRESSURE LIMIT:	240
FLOW CONSTANT:	25000 Only change this if it needs adjustment
SALINITY CAL:	60 Only change this if it needs adjustment
INLET OFFSET:	0.00
OUTLET OFFSET:	0.00
BRIGHTNESS:	0
FLUSH DURATION:	7
PUMP ON TIME:	360
PUMP OFF TIME:	0
FLUSH INTERVAL:	120
CLEAN PRESSURE:	15

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s).

MPC-5000 default settings NP1000 MK2

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

SYSTEM UNITS:	Imperial
FLOW SENSOR TYPE:	Rotoflow
PRESSURE RANGE:	High
DISABLE AIR LOCK:	No
DISABLE PREFILTER:	No
DISABLE PRESSURE	No
DISABLE SALINITY:	No
PPM THRESHOLD:	748
LOW VACUUM LIMIT:	10
PRESSURE LIMIT:	250
FLOW CONSTANT:	25000 Only change this if it needs adjustment
SALINITY CAL:	60 Only change this if it needs adjustment
INLET OFFSET:	0
OUTLET OFFSET:	0
BRIGHTNESS:	0
FLUSH DURATION:	8
PUMP ON TIME:	480
PUMP OFF TIME:	0
FLUSH INTERVAL:	120
CLEAN PRESSURE:	15

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s).

MPC 5000 settings for Ventura 150/200

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

System Units	Imperial
Flow Sensor Type	Rotoflow
Pressure Range	Low
Disable Airlock	No
Disable Prefilter	No
Disable Pressure	No
Disable Salinity	No
PPM Threshold	748
Differential Limit	10
Pressure Limit	125
Flow Constant	25000
Salinity Cal	60
Inlet Offset	0
Outlet Offset	0
Brightness	0
Flush Duration	3
Pump On Time	3
Pump Off Time	0
Flush Interval	120

MPC 5000 settings for Ventura 150 MK2 – Marine Max

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

System Units	Imperial	
Flow Sensor Type	Rotoflow	
Pressure Range	Low	
Disable Airlock	No	Disables "System Stalled" alarm (rotoflow not reading)
Disable Prefilter	No	Disables "Service Prefilter" alarm (filter sensor failure)
Disable Pressure	No	Disables "High Pressure" alarm (pressure sensor failure)
Disable Salinity	No	Disables "Salinity Probe Failed" alarm
PPM Threshold	748	Product salinity to open diversion valve
Low Vacuum Limit	7	
Pressure Limit	125	
Flow Constant	25000	
Salinity Cal	60	
Inlet Offset	0	The filter sensor
Outlet Offset	0	The pump pressure sensor
Brightness	0	
Flush Duration	4	Minutes total
Pump On Time	180	Seconds
Pump Off Time	30	Seconds
Flush Interval	120	Hours

CLEAN PRESSURE: 15

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s).

MPC 5000 settings for Catalina 300 w/ stroke sensor

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

System Units	Imperial
Flow Sensor Type	Stroke
Pressure Range	Low
Disable Airlock	No
Disable Prefilter	No
Disable Pressure	No
Disable Salinity	No
PPM Threshold	748
Differential Limit	10
Pressure Limit	125
Flow Constant	6,000,000
Salinity Cal	60
Inlet Offset	0
Outlet Offset	0
Brightness	0
Flush Duration	5
Pump On Time	3
Pump Off Time	6
Flush Interval	120

MPC 5000 settings for Catalina 300 MK2

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

	System Units	Imperial
	Flow Sensor Type	Rotoflow
	Pressure Range	Low
	Disable Airlock	No
	Disable Prefilter	No
	Disable Pressure	No
	Disable Salinity	No
___	PPM Threshold	748
___	Low Vacuum Limit	10
___	Pressure Limit	125
___	Flow Constant	25,000
___	Salinity Cal	60
___	Inlet Offset	0
___	Outlet Offset	0
	Brightness	0
	Flush Duration	5
	Pump On Time	3
	Pump Off Time	6
	Flush Interval	120
___	Clean filter Pressure	___

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s).

Newport 400 MK 1 MPC 5000 (default settings) Stroke sensor

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

System Units	Imperial
Flow Sensor Type	stroke
Pressure Range	Low
Disable Airlock	No
Disable Prefilter	No
Disable Pressure	No
Disable Salinity	No
PPM Threshold	748
Differential Limit	10
Pressure Limit	125
Flow Constant	6000000
Salinity Cal	60
Inlet Offset	0
Outlet Offset	0
Brightness	0
Flush Duration	6
Pump On Time	3
Pump Off Time	0
Flush Interval	120

Newport 700 MK 1 MPC 5000 (default settings)

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

System Units	Imperial
Flow Sensor Type	RotoFlow
Pressure Range	High
Disable Airlock	No
Disable Prefilter	No
Disable Pressure	No
Disable Salinity	No
PPM Threshold	748
Differential Limit	10
Pressure Limit	250
Flow Constant	26000
Salinity Cal	60
Inlet Offset	0
Outlet Offset	0
Brightness	0
Flush Duration	7
Pump On Time	3
Pump Off Time	0
Flush Interval	120

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

SYSTEM UNITS:	Imperial	
FLOW SENSOR TYPE:	Rotoflow	
PRESSURE RANGE:	Low	
DISABLE AIR LOCK:	No	
DISABLE PREFILTER:	No	
DISABLE SALINITY:	No	
PPM THRESHOLD:	748	
LOW VACUUM LIMIT	8	
PRESSURE LIMIT:	900	
_____ FLOW CONSTANT:	8300	Only change this if it needs adjustment
_____ SALINITY CAL:	60	Only change this if it needs adjustment
_____ INLET OFFSET:	0	19-20psi (1.3-1.4bar) is normal
_____ OUTLET OFFSET:	0	500-700psi (34-48bar) is normal
BRIGHTNESS:	0	
FLUSH DURATION:	8	
PUMP ON TIME:	360	
PUMP OFF TIME:	60	
FLUSH INTERVAL:	120	
_____ CLEAN PRESSURE:	15	

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s).

Once in Program Mode these are the (default) calibration settings (small variations mean the system was calibrated at one time), the numbers on the left of the display screen are the current sensor readings and the number on the right is the calibration adjustment. To make an adjustment the tapping Auto Run will lower the number one digit and Auto Store will increase the number.

SYSTEM UNITS:	Imperial	
FLOW SENSOR TYPE:	Rotoflow	
PRESSURE RANGE:	Low	
DISABLE AIR LOCK:	No	
DISABLE PREFILTER:	No	
Disable Pressure	No	
DISABLE SALINITY:	No	
PPM THRESHOLD:	748	
Minimum Supply Pressure	8	
PRESSURE LIMIT:	900	
FLOW CONSTANT:	8300	Only change this if it needs adjustment
SALINITY CAL:	60	Only change this if it needs adjustment
Supply OFFSET:	0	
Feed OFFSET:	0	
BRIGHTNESS:	0	
FLUSH DURATION:	8	
PUMP ON TIME:	3	
PUMP OFF TIME:	0	
FLUSH INTERVAL:	0	
CLEAN PRESSURE:	15	

Adjust this setting **WITH A NEW CLEAN FILTER INSTALLED.**

The number on the right is adjusted to be the same (whole number) as the number on left which is the boost pump pressure sensor on the filter(s). Note; if the boost pressure is variable, calibrate this adjustment when the boost pressure is at its lowest point.