







# ONGA<sup>®</sup> INTELLIMASTER

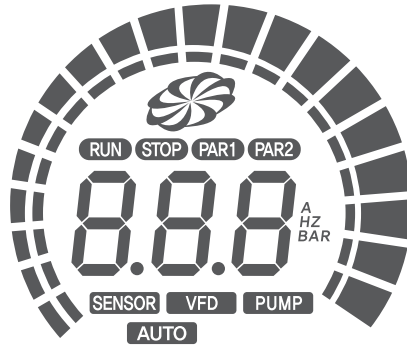


USER QUICK MANUAL

Please read the IMPORTANT SAFETY INFORMATION below, and all Warning and Caution information elsewhere.

	<p>Danger : Indicates a risk of electric shock, which, if not avoided, could result in damage to the equipment and possible injury or death.</p>		<p>Danger : Indicates a potentially hazardous situation other than electrical, which if not avoided, could result in damage to property.</p>
	<p>Intellimaster series is intended for professional incorporation into complete equipment or systems as part of a fixed installation. If installed incorrectly it may present a safety hazard. The Intellimaster series uses high voltages and currents, carries a high level of stored electrical energy, and is used to control mechanical plant that may cause injury. Close attention is required to system design and electrical installation to avoid hazards in either normal operation or in the event of equipment malfunction. Only qualified electricians are allowed to install and maintain this product.</p>		
	<p>System design, installation, commissioning and maintenance must be carried out only by personnel who have the necessary training and experience. They must carefully read this safety information and the instructions in this Guide and follow all information regarding transport, storage, installation and use of the Intellimaster series, including the specified environmental limitations.</p>		
	<p>Do not perform any flash test or voltage withstand test on the Intellimaster series. Any electrical measurements required should be carried out with the Intellimaster series disconnected.</p>		
	<p>Electric shock hazard! Disconnect and ISOLATE the Intellimaster series before attempting any work on it. High voltages are present at the terminals and within the drive for up to 10 minutes after disconnection of the electrical supply. Always ensure by using a suitable multimeter that no voltage is present on any drive power terminals prior to commencing any work.</p>		
	<p>Where supply to the drive is through a plug and socket connector, do not disconnect until 10 minutes have elapsed after turning off the supply.</p>		
	<p>The driven motor can start at power up if the enable input signal is present.</p>		
	<p>The STOP function does not remove potentially lethal high voltages. ISOLATE the drive and wait 10 minutes before starting any work on it. Never carry out any work on the Drive, Motor or Motor cable whilst the input power is still applied.</p>		
	<p>The entry of conductive or flammable foreign bodies should be prevented. Flammable material should not be placed close to the drive. Relative humidity must be less than 95% (non-condensing).</p>		
	<p>Ensure that the supply voltage, frequency and single phase input correspond to the rating of the Intellimaster as delivered.</p>		
	<p>Never connect the mains power supply to the Output terminals U, V, W.</p>		
	<p>Do not install any type of automatic switchgear between the drive and the motor.</p>		

1> LCD Display

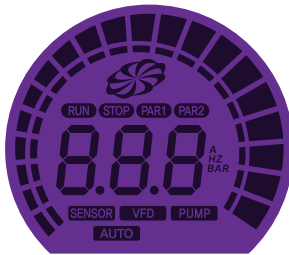


- |             |               |             |             |               |              |
|-------------|---------------|-------------|-------------|---------------|--------------|
| <b>RUN</b>  | VFD Operation | <b>PAR1</b> | Parameter 1 | <b>SENSOR</b> | Sensor Alarm |
| <b>STOP</b> | VFD Stop      | <b>PAR2</b> | Parameter 2 | <b>VFD</b>    | VFD Alarm    |
|             |               |             |             | <b>PUMP</b>   | Pump Alarm   |

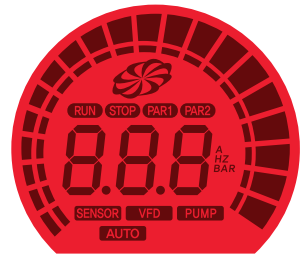
2> LCD Color



<Operation is Blue>

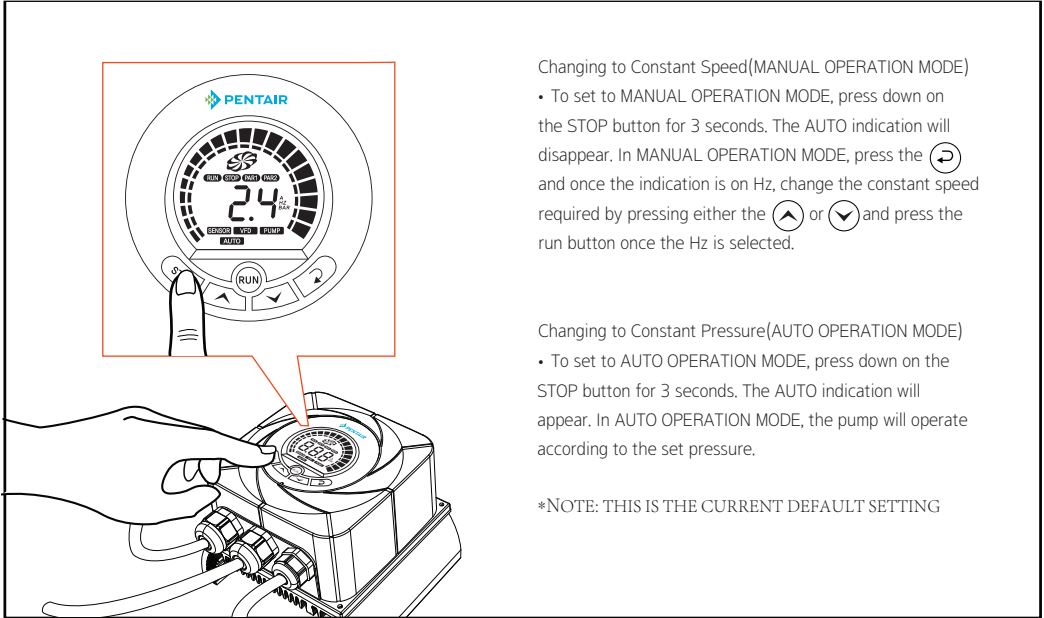


<Stop is Purple>

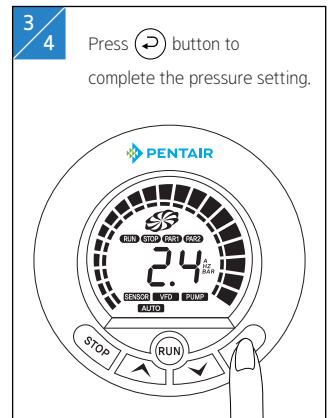
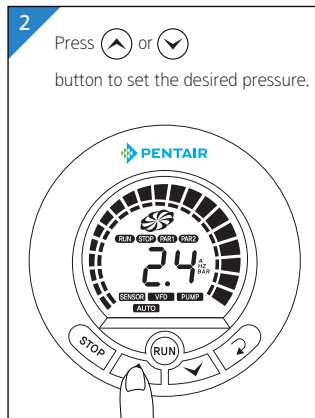
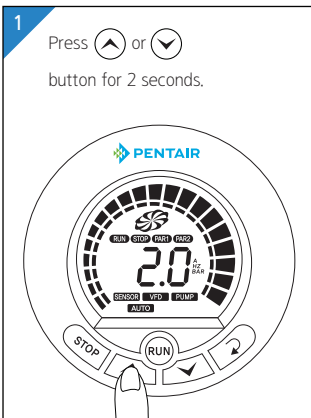


<Alarm is Red>

## 1> Switching to Constant Pressure or Constant Speed



## 2> Setting the pressure



## 1> Parameter1

### PAR1 Inverter Parameter

First, stop the inverter, then press the  and  button simultaneously.



Display	Description	Value	Default (240V)
P 00	Max Frequency	5.0 ~ 70.0 Hz	50
P 01	Max Voltage Frequency	5.0 ~ 70.0 Hz	50
P 02	Max Voltage	50 ~ 240 VAC	240
P 03	Mid-Point Frequency	5.0 ~ 70.0 Hz	25
P 04	Mid-Point Voltage	3 ~ 220 VAC	120
P 05	Min Frequency	0.1 ~ 20.0 Hz	1.5
P 06	Min Voltage	3 ~ 100 VAC	15
P 07	ACC Time	3.0 ~ 99.9 Sec	3
P 08	DEC Time	3.0 ~ 99.9 Sec	3
P 09	Stop Mode	0 : Deceleration to stop 1 : Coast to stop	1
P 10	Pump HP	0 : 1 HP (3.1A) 1 : 1.5 HP (4.3A)	2
P 11	Overload Rate	50 ~ 200 %	150
P 12	Overload Time	2.0 ~ 99.9 Sec	10
P 13	Over-Voltage application Rate	100 ~ 200 %	120
P 14	Low-Voltage application Rate	50 ~ 90 %	60
P 15	Carrier Frequency	3.0 ~ 15.0 Hz	8
P 16	TEST	444 - Reset setting 422 - Reset for 220VAC 424 - Reset for 240VAC	428
P 17	Version information		

## 2> Parameter2

### PAR2 Booster Parameter

First, stop the inverter, then press the  and  button simultaneously.



Display	Description	Value	Default (240V)
B 00	Set Press	0.3 ~ 6.0 Bar	3.5
B 01	Run deviation	-3.0 ~ -0.2 Bar	-0.5
B 02	Sensor type	1.0 ~ 16.0 Bar	16
B 03	Sensor Adjust	-9.9 ~ 9.9 Bar	0
B 04	Low press	0.2 ~ 2.0 Bar	0.5
B 05	Stop Time of Low press	0 : Not use 1 ~ 999 Sec	20
B 06	Low Current	0.5 ~ 5.0 A	3.3
B 07	Stop Time of Low Current	0 : Not use 1 ~ 999 Sec	10
B 08	Pump Direction	0 : CW 1 : CCW	0
B 09	P	1 ~ 200	25
B 10	I	1 ~ 200	40
B 11	D	1 ~ 200	40
B 12	Auto Reset	0 ~ 20 ( OC,OL,OV,LV inverter err only)	5
B 13	The initial operation status	0:Stop, 1:Run, 2:Last Key state	2
B 14	-		
B 15	-		
B 16	-		
B 17	Version information	1, XX	






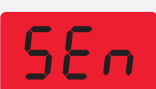


## INJ-4500L

Model Number		075	015	022
Insulation Class		IP55		
Max. Applicable Motor Output	KW	0.75	1.1	2.2
	HP	1	2	3
Max linkage inverter		3		
Rated Input AC Voltage		2Phase(2line)220/240V(±10%), 50/60Hz(±5%)		
Rated Output Voltage (V)		3Phase220/240V		
Rated Output Current (A)		5	7	10
Control System		PWM Type		
Output Frequency Range		0~120Hz		
Torque Characteristics		V/F Control (Regular Torque, Low Deceleration Torque)		
Overload Endurance		150% of rated current for 1 minute		
Accel/Decel Time		0.1~60 seconds (Independent settings for Accel/Decel Time)		
Pressure sensor Range		0.1~25kg/cm <sup>2</sup>		
Analog Input Signal		RESS-SEN (4~20mA Pressure Transmitter) , 1~5V voltage type(option)		
Protections		Over-Current, Over Voltage, Under Voltage, Overheating, Overload, Low Pressure, High Pressure, Water Low Level		
Other Functions		PID Control, Auto Restart, Alarm Auto Reset, RS-485 Communication		
Cooling Methods		Heat Sink		
Weight (kg)		2.5kg		

## Alarm Log (Max 20 logs)



In Main display, Press the  and  button longer and together.

Display	Alarm	Reason	Countermeasures
	Over current	Over-current on the inverter/ Abnormal operation of the motor/ Short of the motor's output line	If problem repeats/ Check the pump/motor
	Low voltage	Low-voltage on the inverter	Check the input voltage
	Over voltage	Over-voltage on the inverter, when excessive voltage is inputted to the inverter	Check the input voltage
	Over load	Overload on the inverter/ Abnormal operation of the motor/pump	Check the pump/motor
	Fail communication	Master and slave are communication fail	Check communication line
	Error of sensor	Sensor fail to connect	Check the connection of the sensor/ Change the sensor
	Stop for low current	When the water level of the tank is low/ When air enters the pumps	Check the tank/ Remove air from the pump
	Low Pressure	When the pressure drops below the set "Low press"	Lower the "Low press"/ Adjust the setting for pump operation

## NOTES





## NOTES



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## NOTES





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