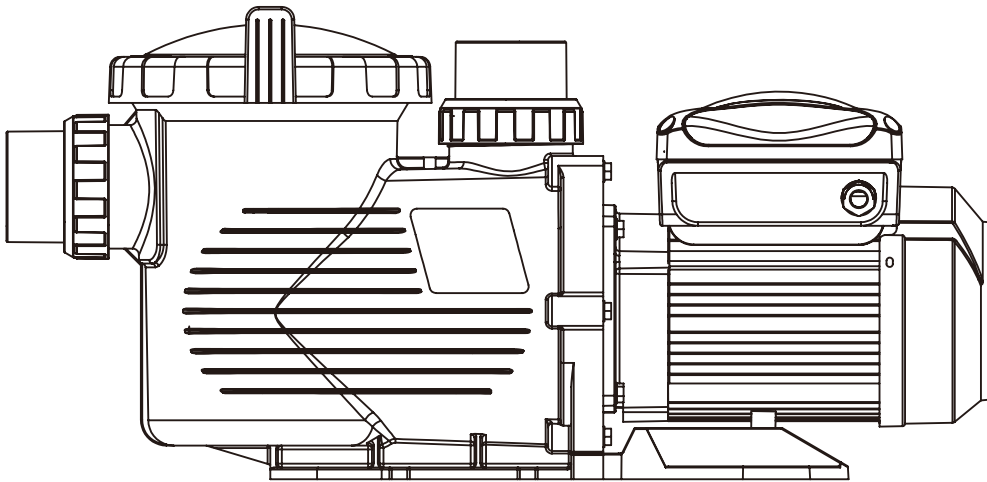




**EPV Series Pump  
Installation & Operating Instructions**  
**EPV系列水泵  
安装及操作说明书**



# 1. Pump Installation 水泵的安装

- Please install on a level vibration free surface.
- Allow use of short, direct suction pipe. (To reduce friction losses & don't install the pump at more than 3m geometrical height from water level)
- Allow for gate valves in suction and discharge piping if required.
- Have adequate floor drainage to prevent flooding.
- Protect from excess moisture.
- Allow the adequate access for servicing pump and piping.

## NOTICE:

**Pump suction and discharge connections have molded in thread stops, DO NOT try to screw pipe in beyond these stops.**

- 请安装在一个平坦防震的表面。
- 允许使用短的、直接抽吸的水管。(为了减少摩擦水头&不要将水泵安装在高于水平面3米几何高度的地方)
- 需要时允许在抽水和排水管道上安装闸阀。
- 有充足的地面排水能力以防止水浸。
- 防止过度潮湿。
- 为维修水泵和管道预留足够通道

## 注意:

**水泵的抽水和排水管接头上铸压有螺纹止位，拧紧时不要试图超过这些止位。**

## 1.1 Operation:

The pump is fitted with a wide range of settings to suit any filtration requirements.

The controller is used to program a range of motor speeds and settings described as "Schedules" in the program. To program the pump go to page 6 for easy description of how this is done. **NEVER** run pump dry! Running pump dry may damage seals, causing leakage and flooding! Fill pump with water before starting motor.

- **Before removing lid:**
- **STOP PUMP before proceeding.**
- **RELEASE ALL PRESSURE from pump and piping system.**
- **NEVER tighten or loosen screws while pump is operation.**
- **Do not block pump suction!**

## 1.1 操作

该水泵配有各种装置以满足任何过滤需求。其控制器可为各种电机转速和设置制定程序指令，在程序中被称为“日程”。关于水泵的编程，可参阅第6页对如何编程的简单描述。绝对不要让水泵干运转！水泵的干运转可能损坏密封件，导致漏水和水浸！启动电机前要在水泵内充满水。

- 在开启水泵盖之前：
- 操作前关闭水泵。
- 释放来自水泵和管道的所有压力。
- 绝不可在水泵运转期间拧紧或松开螺丝。
- 不要堵住水泵的抽水口！

## 1.2 Priming Pump:

- Release all air from filter and piping system: see filter owner manual.
- In a flooded suction system (water source higher than pump), pump will prime itself when suction and discharge valves are opened.
- If pump is not in a flooded suction system, unscrew and remove pump lid and fill with water.

## 1.2 启动水泵：

- 释放过滤器和管道内的所有空气：参见过滤器使用手册。
- 在一个溢水抽吸的系统(水源高于水泵)里，当抽水和排水阀开启时，水泵会自启动。
- 如果水泵不是处于溢水抽吸的系统，旋开并卸下水泵盖，在水泵内注水。

**NOTICE: Tighten pump lid by hand only.**

**注意: 只能徒手拧紧水泵盖。**

### 1.3 Main Power Wiring Instruction

- This is the alternative option for owner who would like to wire the main power to EPV Series Pump.
- There are two terminals label AC-L and AC-N. Attach the power leads to these terminals.
- Either wire may attach to either terminal. As shown in Figure 1.
- 这里给EPV系列水泵提供电源的接线指引。
- 水泵有两个接线端口“AC-L”和“AC-N”，把这两个端口接驳到电源上。
- 两条电线可相互对调，如图1所示。

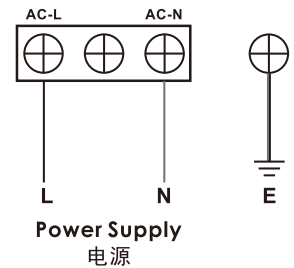


Figure 1  
图1

## 2. User's Guide 使用指南

### 2.1 Overview

Functions of the controller is shown below:

- **Time:** Built in time clock.
- **Speed Display:** Expressed in RPM. Shows the operating speed.
- **Preset Pump Speed:** four optional preset running speeds available.
- **Display:** Time, four preset running speeds, power, Schedule settings and fault codes.

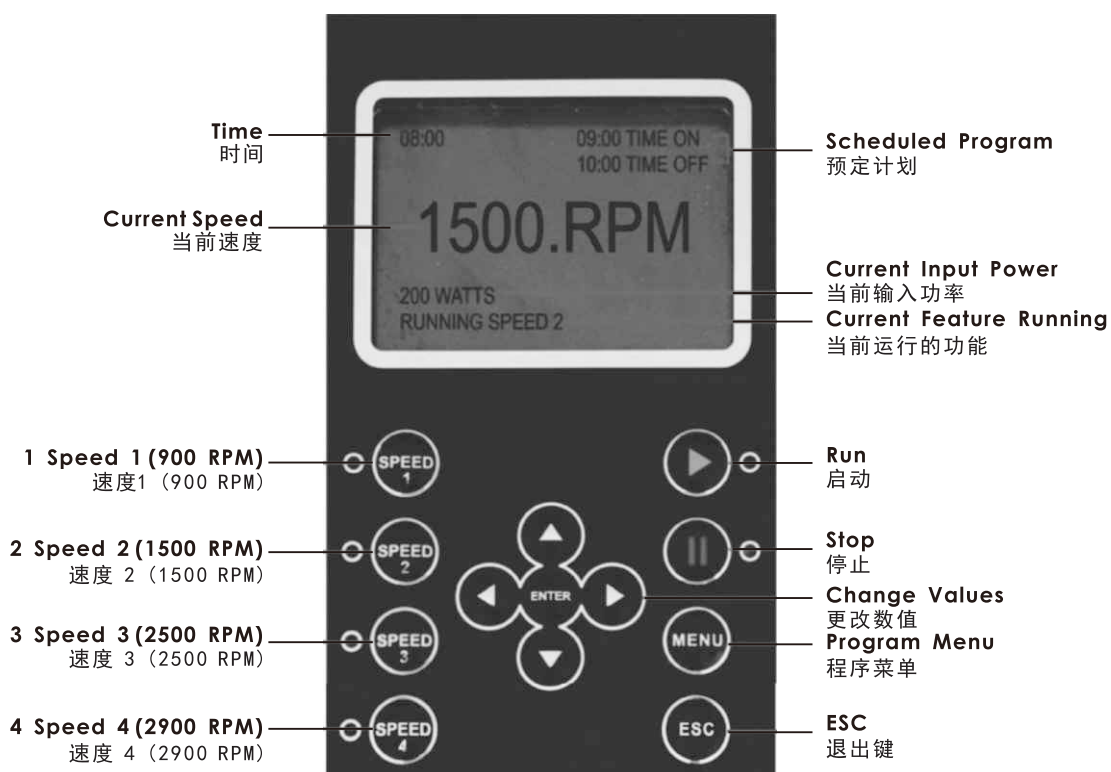
#### 2.1 概述

控制器的作用如下：

- 时间：内置时钟。
- 转速显示：用RPM表示。显示运转速度。
- 预设水泵转速：有4个预设转速可选。
- 显示屏：显示时间、4个预设转速、功率、日程设定和故障代码。

### 2.2 Controller's outlook display

#### 2.2 控制器的外观展示



LCD Display backlight will switch off after 60 seconds if no button is pressed. The LCD backlight can be turned on again by pressing any button.

LCD显示屏背光灯在无操作时60秒后关闭。  
LCD按压任何按键可重新开启LCD背光灯。

## 2.3 Controller Display

### 2.3 控制器显示图示



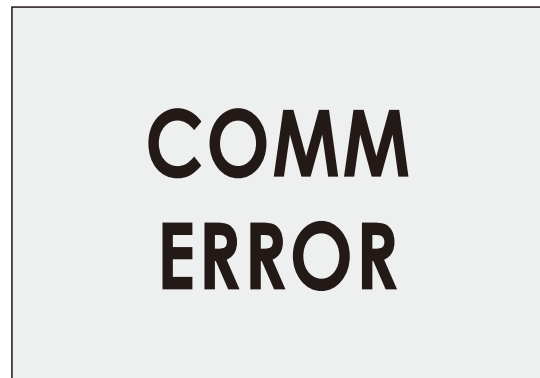
Turn on Interface Display  
开机界面显示



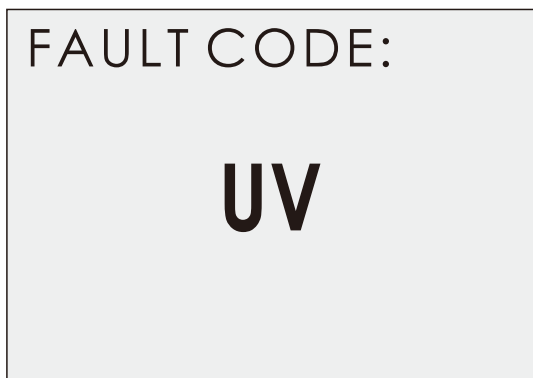
Static Interface Display  
静态界面显示



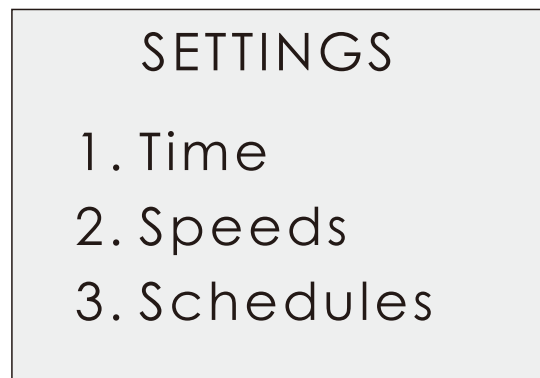
Normal Operating Interface Display  
正常运转界面显示



Communication Error Interface Display  
通信错误界面显示



Fault Interface Display  
故障界面显示



Parameter Setting Interface Display  
参数设定界面显示

## Description of Controls 对各控制键的说明

Buttons 按键	Name 名称	Function 作用
	<b>Increase</b> 增加	Press this button to adjust ( increase ) the setting 按此键调整 (增加) 设置
	<b>Decrease</b> 减少	Press this button to adjust ( decrease ) the setting 按此键调整 (减少) 设置
	<b>Left</b> 左	Move the cursor keys (select unit,Loop display) 移动光标键(选择单元, 循环显示)
	<b>Right</b> 右	Move the cursor keys (select unit,Loop display) 移动光标键(选择单元, 循环显示)
	<b>Enter</b> 进入	Entre sub-menu, speed setting adjusting mode or save speed setting 进入子菜单, 速度设定调整模式或保存速度设定
	<b>Speed1</b> 速度1	Press this button to select the required preset motor speed, LED next to the button switches on 按此键选择所需的预设电机转速, 按键旁边的LED灯开启
	<b>Speed2</b> 速度2	Press this buttontoselecttherequired preset motor speed, LED nextto the button switch on 按此键选择所需的预设电机转速, 按键旁边的LED灯开启
	<b>Speed3</b> 速度3	Press this buttontoselecttherequired preset motor speed, LED nextto the button switch on 按此键选择所需的预设电机转速, 按键旁边的LED灯开启
	<b>Speed4</b> 速度4	Press this buttontoselecttherequired preset motorspeed, LED nextto the button switch on 按此键选择所需的预设电机转速, 按键旁边的LED灯开启
	<b>Start</b> 启动	Press this button to start the motor, LED next to the button switches on 按此键启动电机, 按键旁边的LED灯开启
	<b>Stop</b> 停止	Press this button to stop the motor, LED next to the button turns red, Drive fault reset key 按此键关闭电机, 按键旁边的LED灯变红, 驱动故障复位键
	<b>Menu</b> 菜单	Press this button to enter the parameter adjustment menu when the motor is not operating 在电机不运转时, 按此键进入参数调整菜单
	<b>ESC</b> 退出	Back/Cancel 退出/取消;

## 2.4 Programming

### 2.4 编制程序

#### 2.4.1 Internal system clock. 内置系统时钟

An internal system clock is used to maintain programmed operating conditions. If power supply is disconnected, the memory & programmed features will be maintained for approximately 7 days. Clock re-set may be required after this time.

内置系统时钟用于维持已编程的操作条件。在停电的情况下, 内存及已编程的功能大约可保存7天。超出这个期限可能要重设时钟。

## 2.4.2 Internal Speed (RPM) Adjustments.

There are 4 speed settings available.

To set speed settings, pump must be in the off position.

- Press Menu button.
- Press the buttons marked with an Up or Down arrow to highlight the "2.speeds" on the menu.
- Press Enter to show 1 to 4 speed settings.
- Move buttons marked with an Up or Down arrow to highlight a particular (RPM) speed.
- Press Enter over a highlighted setting, to show the set speed. Adjust that speed by using the Up or Down buttons.
- Press Enter to save that setting or press ESC to escape and not save setting.

## 2.4.2 内部转速 (RPM) 调整

有4个转速设置。

必须在水泵关机的情况下调整转速设置。

- 按Menu键。
- 按标有上或下箭头的按键，加亮菜单上的“2.速度” (2.speeds)。
- 按Enter键，显示1至4个转速设置。
- 移动标有上或下箭头的按键，加亮某一特定的转速 (RPM)。
- 在已加亮的转速设置上，按Enter键显示设定的转速。使用上下按键调整此转速。
- 按Enter键保存设置或按ESC键不保存退出。

## 2.4.3 Programmed Schedule.

Pump is supplied with a de-fault setting to enable easy installation. This can be altered to suit an individual requirement.

See Flow chart on Page 11.

There are four options available should the customer wish to change the de-fault settings.

The same method of programming applies to all 4 programs.

<b>"Function"</b>	<b>Schedule setting Enable or Disable.</b>
<b>"Time On"</b>	<b>Sets the in-built timer to ON position.</b>
<b>"Time off"</b>	<b>Sets the in-built timer to OFF position.</b>
<b>"Speed"</b>	<b>Sets the programmed speed (RPM).</b>

Ensure pump is in off position before changing program.

## 2.4.3 编程的日程

为了简化安装过程，已预先为水泵设定了默认设置。可以按个人的要求更改此设置。

参阅第11页的流程图。

如果客户希望更改默认设置，有4个选项可供选择。

相同的编程方法应用于所有4个程序。

"功能" 启用或禁用日程设置。

"开启时间" 将内置定时器设为开启。

"关闭时间" 将内置定时器设为关闭。

"速度" 设置编程转速(RPM)。

更改程序前确保水泵处于停机状态。

## 2.4.4 Programming Schedule 1 编制日程 1

### Function 功能

- To Inspect/change "Function" setting. 用来查看/更改“功能”Function的设置。
- Press Menu, this highlights the settings. 按Menu键，加亮各选项。
- Using Up/Down buttons go to Schedules. 使用上/下键移到日程 Schedules 选项。
- Press Enter. 按Enter键。
- Move Up/Down buttons and go to Schedules (1 to 4 Listed) 移动上/下键到达日程 Schedules 选项 (列出1至4个日程)。
- Press Enter. 按Enter键。
- Function title will be highlighted. 功能的标题被加亮。
- Press enter to change setting from 按Enter键，移动上/下键来更改禁用/启用设置 Disable/ Enable. Disable/ Enable using the Up/Down buttons.
- Press Enter to Save OR press ESC to escape and not save. 按Enter键保存设置或按ESC键不保存退出。
- Press ESC to exit function setting. 按ESC键退出功能设置。

## Time On 开启时间

- To Inspect/change "Time On" settings within Schedules 1
- Move Up/Down buttons to highlight Time on setting.
- Press Enter to show time.
- Highlight Minutes & Hours by using Enter & Left/Right buttons.
- Change time by moving Up/Down buttons.
- Press Enter to Save OR press ESC to escape and not save.
- Press ESC to exit "Time On" setting.
- 用来查看/更改日程1中的“开启时间”设置。
- 移动上/下键加亮定时器开启时间设置。
- 按Enter键显示时间。
- 用Enter键及左/右键，加亮分钟及小时。
- 移动上/下键更改时间。
- 按Enter键保存或按ESC键不保存退出。
- 按ESC退出“开启时间”设定。

## Time Off 关闭时间

To Inspect/change "Time Off" settings within Schedule 1

- Move Up/Down buttons to highlight Time on setting.
- Press Enter to show time.
- Highlight Minutes & Hours by using Enter & Left/Right buttons.
- Change time by moving Up/Down buttons.
- Press Enter to Save OR press ESC to escape and not save.
- Press ESC to exit "Time Off" setting.

Programming Schedules 2, 3 & 4 are the same as programming Schedule 1.

用于查看/更改日程1中“关闭时间”的设置

- 移动上/下键，加亮定时器关闭时间设置。
- 按Enter键显示时间。
- 用Enter键及左/右键加亮分钟及小时。
- 移动上/下键更改时间。
- 按Enter键保存或按ESC键不保存退出。
- 按ESC退出“关闭时间”设定。

编制日程2、3和4的方法与编制日程1相同。

### 2.4.5 Variable Speed Adjustment.

There are 7 options available.

<b>"Function"</b>	<b>Turns the Variable Speed Function on or off.</b>
<b>"Time On"</b>	<b>Sets the in-built timer to ON position.</b>
<b>"Time off"</b>	<b>Sets the in-built timer to OFF position.</b>
<b>"Min Speed"</b>	<b>Sets the minimum speed (RPM) setting.</b>
<b>"Max Speed"</b>	<b>Sets the maximum speed (RPM) setting.</b>
<b>"Step"</b>	<b>Sets the RPM in "steps" when changing speed settings.</b>
<b>"Rhythm"</b>	<b>Sets the time frame for water flow to change.</b>

The 'Step' & Rhythm" settings are particularly useful if a pool feature like a waterfall is installed and you want the water flow to change over time to give a visual effect, for example: a cascading waterfall.

Ensure pump is in off position before changing program.

Press Menu, this highlights the settings.

Using Up/Down buttons go to Variable Speed

Press Enter.

**Method of adjustments to above parameters is the same as entering the settings described in Schedule 1.**

#### 2.4.5 无级变速的调整

共有7个选项。

- "功能"** 设置无级变速功能的开启或关闭。
- "开启时间"** 将内置定时器设为开启。
- "关闭时间"** 将内置定时器设为关闭。
- "最低转速"** 设定最低转速(RPM)。
- "最高转速"** 设定最高转速(RPM)。
- "台阶"** 设定改变转速设置时RPM按“台阶”调整。
- "节奏"** 设定改变水流的时间范围。

如果您的泳池安装了特别功能，如瀑布，并且希望随着时间改变水流、制造视觉效果，如层叠瀑布，那么'Step'（台阶）及'Rhythm'（节奏）的设定对您特别有用。

更改程序前确保水泵处于关机状态。

按Menu键，加亮各设置选项。

使用上/下键到达无级变速（Variable Speed）选项。

按Enter键。

对以上参数的调整方法与日程1中所描述的设定各设置的方法相同。

#### 2.4.6 Language Setting.

- 1) In static condition, press MENU to enter the setting interface;
- 2) Press Increase or Decrease to select "Language";
- 3) Press ENTER to enter the "Language" setting interface, the symbol ">" indicates the current display language;
- 4) Press ENTER again to enter the editing mode, press Increase or Decrease to select the display language that is wished to be set;
- 5) Press ENTER to save the setting, the selected language will be shown on the display interface immediately. press ESC to exit the editing mode if the preset is not wished to be save;
- 6) Press ESC to return.

#### 2.4.6 语言设置

- 1) 在静态条件下, 按MENU键进入调整界面;
- 2) 按加或减键选择"语言" (Language);
- 3) 按ENTER键进入"语言" (Language) 调整界面, 符号">"表明当前显示的语言
- 4) 再次按ENTER键进入编辑模式, 按加或减键选择您希望设置的显示语言;
- 5) 按ENTER保存设置, 已选择的语言将立即出现在显示界面上。按压ESC键退出编辑模式, 如果不想保存此设置;
- 6) 按ESC键退回。

#### 2.4.7 No Flow Settings

Note: Only operates when motor is running above 1800RPM.  
There are 3 options available.

<b>"Function"</b>	<b>Will Enable or Disable the No-Flow settings.</b>
<b>"Alarm Time"</b>	<b>Sets the time frame for the No-Flow Protection circuit to operate. Minimum setting is 5 minutes.</b>
<b>"Sensitivity"</b>	<b>Sensitivity of protection system, expressed in %. Minimum setting is 0.01%</b>

Fault Code "NF" will be shown if No Flow Protection System is activated.

Ensure pump is in off position before changing program

Press Menu, this highlights the settings.

Using Up/Down buttons go to Variable Speed

Press Enter.

Method of adjustments to above parameters is the same as entering the settings described in Schedule 1.

#### 2.4.7 无流量设置

注: 只能在电机转速达到1800RPM以上时工作。  
共有3个选项。

<b>"功能"</b>	<b>启用或禁用无流量设置。</b>
<b>"报警时间"</b>	<b>设置无流量保护电路工作的时间范围。最小设置为5分钟。</b>
<b>"灵敏度"</b>	<b>保护装置的灵敏度, 用%表示。最小设置为0.01%。</b>

无流量保护装置激活时, 故障代码"NF"会显示出来。

更改程序时确保水泵处于关机状态。

按Menu键, 加亮设置选项。

使用上/下键到达无流量(No Flow)选项。

按Enter键。

#### 2.4.8 Pump Priming Cycle.

There are 3 options available.

<b>"Function"</b>	<b>Pump priming function enabled or disabled.</b>
<b>"Priming Time"</b>	<b>Time pump is allowed to prime before going to other speed settings.</b>
<b>"Priming Speed"</b>	<b>Set speed for pump to operate during priming cycle.</b>

#### 2.4.8 水泵起动周期

共有3个选项

<b>"功能"</b>	<b>启用或禁用水泵起动功能。</b>
<b>"起动时间"</b>	<b>达到其它转速设置之前水泵的允许起动时间。</b>
<b>"起动速度"</b>	<b>设置水泵起动周期的运转速度。</b>



Ensure pump is in off position before changing program.

Press Menu, this highlights the settings.

Using Up/Down buttons go to Variable Speed

Press Enter.

Method of adjustments to above parameters is the same as entering the settings described Schedule 1.

Pump Priming Time Settings: Minimum time is 1 minute.

Maximum time is 20 minutes.

Default time is 2 minutes.

Pump Priming Speed: Minimum speed is 2900RPM.

Maximum speed is 3400RPM

Default speed is 2900RPM.

更改程序时确保水泵处于关机状态。

按Menu键，加亮各设置选项。

使用上/下键到达起动(Priming)选项。

按Enter键。

对以上参数的调整方法与日程1中所描述的进入各设置的方法相同

水泵起动时间设定： 最小时限为1分钟。。

最大时限为20分钟。

默认时限为2分钟。

水泵起动转速： 最小转速为2900RPM。

最大转速为3400RPM

默认转速为2900RPM。

## 2.5 Factory Default Settings.

This enables you to reset all the default factory settings.

### 2.5 出厂设置

此功能可帮你重设所有出厂设置。

#### 2.5.1 Pump Internal Memory Features.

If the electrical supply to the pump is disconnected, the programmed de-fault settings are maintained for approximately 7 days.

##### 2.5.1 水泵的内存功能

如果水泵的电源中断，编程的默认设置大约可以维持7天。

#### 2.5.2 Internal system clock.

An internal system clock is used to maintain programmed operating conditions. If power supply is disconnected, the memory & programmed features will be maintained for approximately 7 days. Clock re-set may be required after this time.

##### 2.5.2 内部系统时钟

内部系统时钟用于维持编程的运行条件。如果电源中断，内存及编程的功能将可维持大约7天。超过这个时限，可能需要重设时钟。

#### 2.5.3 Internal Speed (RPM) Adjustments.

There are 4 speed settings available.

To set speed settings, pump must be in the off position.

- Press Menu button.
- Press the buttons marked with an Up or Down arrow to highlight the "2.speeds" on the menu.
- Press Enter to show 1 to 4 speed settings.
- Move buttons marked with an Up or Down arrow to highlight a particular (RPM) speed.
- Press Enter over a highlighted setting, to show the set speed. Adjust that speed by using the Up or Down buttons.
- Press Enter to save that setting or press ESC to escape and not save setting.

##### 2.5.3 内部转速(RPM)调整

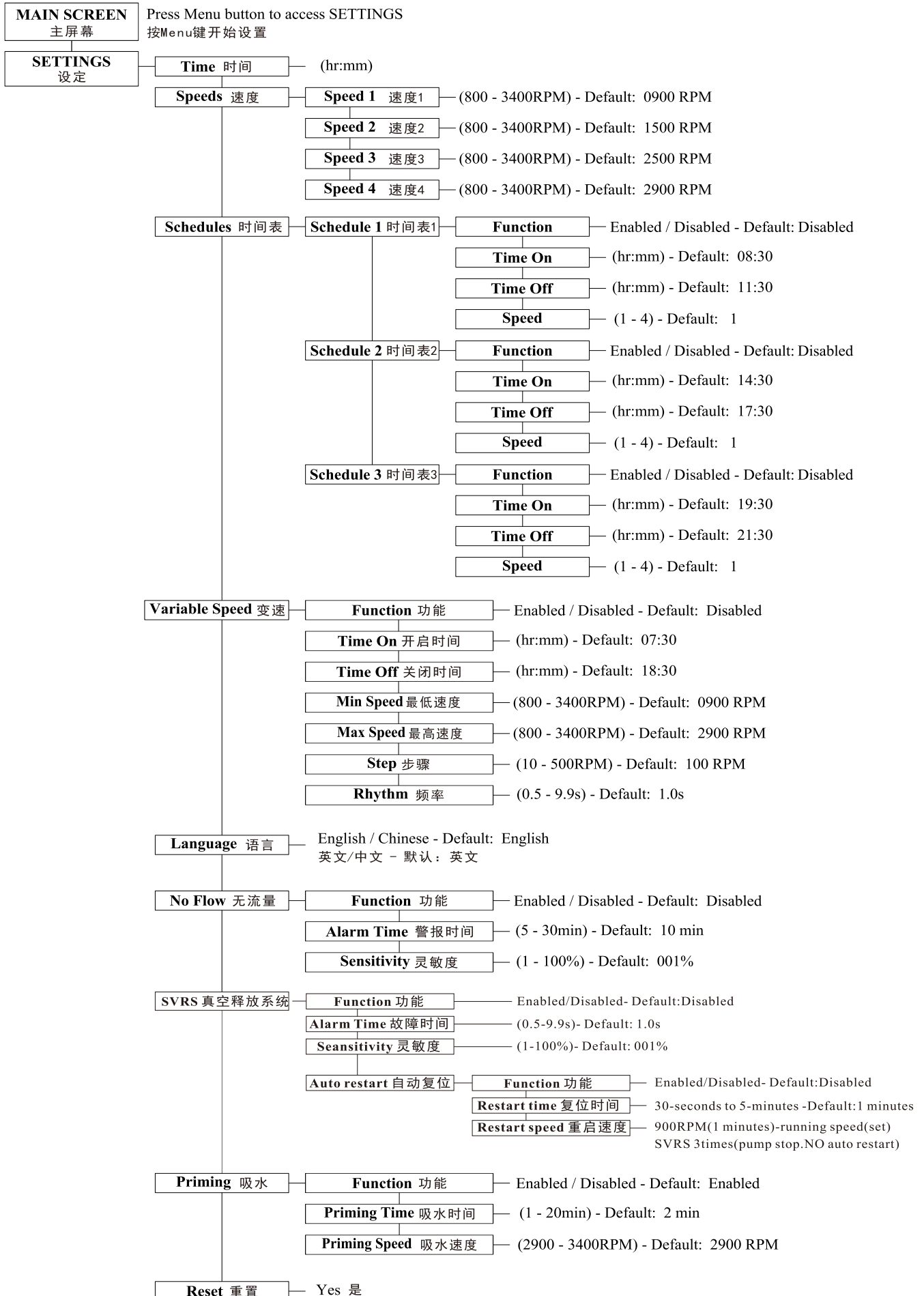
共有4个设置。

设置转速时，水泵必须处于停机状态。

按Menu键。

- 按标有上或下箭头的按键，加亮菜单上的“2.速度”(2.speeds)。
- 按Enter键，显示1至4个转速设置。
- 移动标有上或下箭头的按键，加亮某一特定的转速(RPM)。
- 在已加亮的转速设置上，按Enter键显示设定的转速。使用上下按键调节此转速。
- 按Enter键保存设置或按压ESC键不保存退出。

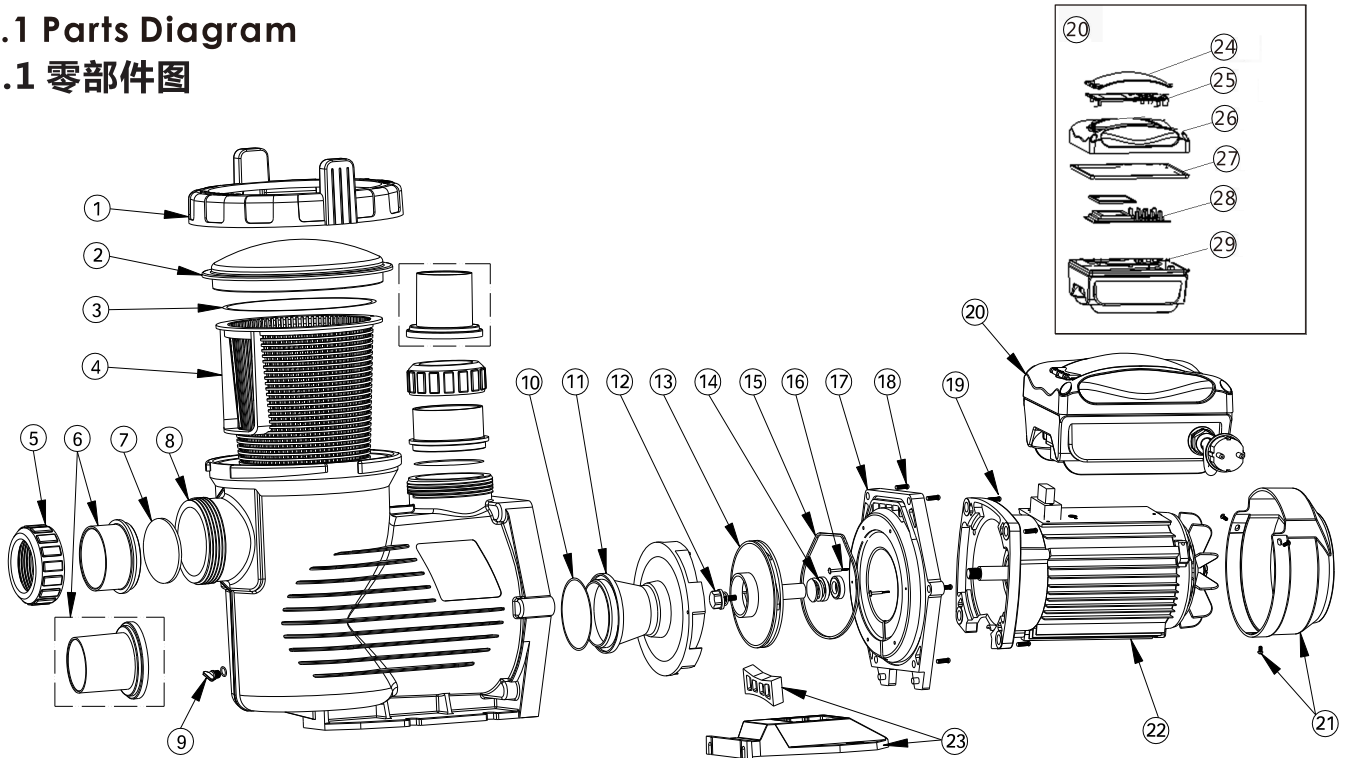
## 2.5.4 Programming Flow Chart 编程流程图



### 3. Replacement Parts 备件

#### 3.1 Parts Diagram

#### 3.1 零部件图



#### 3.2 Parts Listing

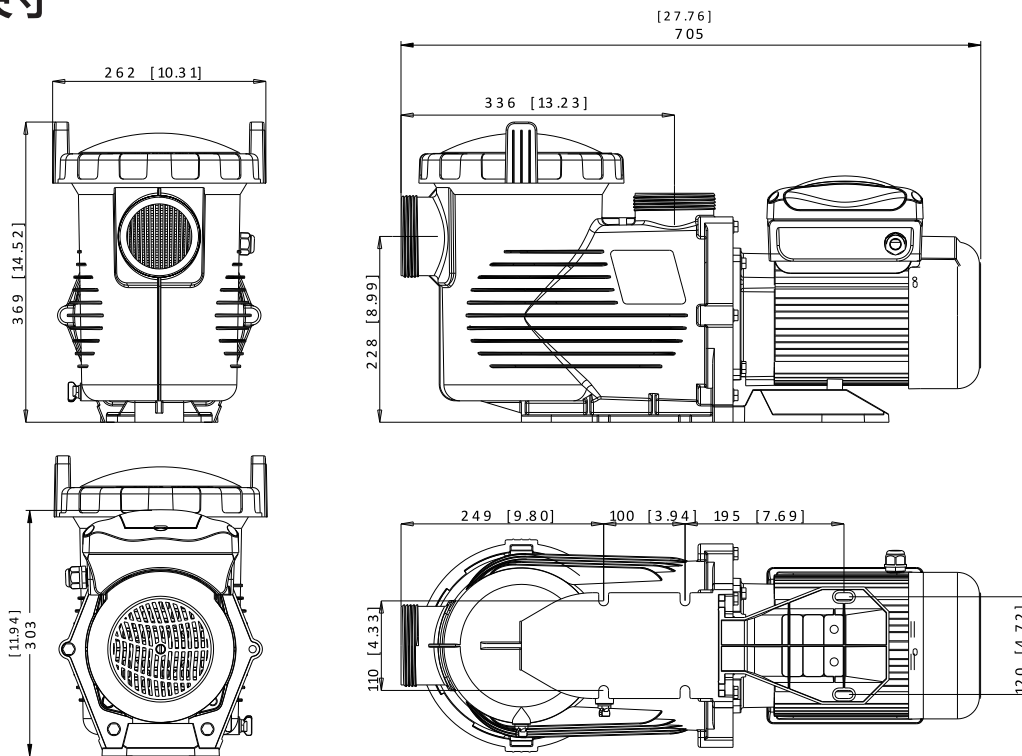
#### 3.2 零部件清单

Item NO. 编号	Part NO. 零件号	Product Description 产品名称	QTY 数量
1	01020016	Nut for Lid 透明盖螺帽	1
2	01041049	Transparent Lid 透明盖	1
3	02010042	O-Ring for Lid 透明盖密封圈	1
4	01110024	Basket 滤篮	1
5-7	89020721	2.5" Union with O-ring 2.5"带密封圈的活接头	2
5-7	89020722	2" Union with O-ring 2."带密封圈的活接头	2
8	01112087	Pump Body 泵体	1
9	89021307	Drain Plug with O-ring 带密封圈的排水塞	2
10	02010213	O-Ring 密封圈	1
11	01110025	Diffuser 扩散器	1
12	89020719	Screw for Impeller with O-ring 带密封圈的泵轮螺丝	1
13	01311058	Impeller EPV150 泵轮EPV150	1
	01311047	Impeller EPV200 泵轮EPV200	1
	01400103	Impeller EPV300 泵轮EPV300	1
14	04015065	3/4" Mechanical Seal 3/4"机械密封	1
15	02010212	O-Ring for Flange 法兰密封圈	1
16	03011402	M3.5*35 Screw M3.5*35螺丝	2
17	01020017	Flange 法兰	1
18	89020720	M8*35 Screw with Washer for Motor M8*35带垫圈的电机螺丝	6
19	03011075	M8*30 Screw M8*30螺丝	4
20	89023702	Controller for EPV150 控制器用于EPV150	1
	89023703	Controller for EPV200 控制器用于EPV200	1
	89023704	Controller for EPV300 控制器用于EPV300	1

21	01321024	Fan Cover	风扇罩	1
22	04020113	EPV150 TYC-80M Motor	EPV150 TYC-80M电机	1
	04020114	EPV200 TYC-80L Motor	EPV200 TYC-80L电机	1
	04020115	EPV300 TYC-80XL Motor	EPV300 TYC-80XL电机	1
23	01110026	Base	底座	1
	02010211	Arch Cushion for Base	底座拱形减震装置	1
24	01041054	Transparent Lid for Programmable Controller	控制器透明盖	1
25	02010302	Panel for Programmable Controller	控制器操作面板	1
26	03039918	Cover for Programmable Controller	控制器上盖	1
27	02021080	Cushion for Cover	上盖胶垫	1
28	04015047	Operation panel (PCB)	PCB控制板	1
29	89020802	EPV150 PCB with Shell	EPV150 PCB主板带外壳	1
29	89020803	EPV200 PCB with Shell	EPV200 PCB主板带外壳	1
29	89020804	EPV300 PCB with Shell	EPV300 PCB主板带外壳	1

### 3.3 Overall Dimension

### 3.3 外形尺寸



### 3.4 Product Information

### 3.4 产品信息

Code 产品编号 220V-240V 50Hz/60Hz	Model Code 型号	Connection Size 接管尺寸		Input Power (Max.) 输入功率 (最大)	Horsepower 匹数	Weight(kg) 重量(kg)
88021107	EPV150	2 inch	2.5 inch	1.50kW	1.5hp	23.00
88021108	EPV200	2 inch	2.5 inch	1.80kW	2.0hp	24.00
88021109	EPV300	2 inch	2.5 inch	2.20kW	3.0hp	25.00

## 4. Troubleshooting 故障排除

### 4.1. Communication error

If there is a communication error inspect the following;

- Ensure the 3-pin plug is making good contact with power point.
- Reset system by turning off power supply, leave for 30 seconds then switch on pump again.
- If problem persist after checking the above points, contact your Emaux service agent

### 4.1. 通信错误

如果发生通信错误，检查下列各项：

- 确保3脚插头与插座充分接触。
- 关闭电源，重设系统，30秒后再重新开启水泵。
- 如果检查以上各点之后问题依然存在，联络您的Emaux服务代理。

### 4.2. Error Display

When Programmable Controller is not working a fault code will be shown on the controller display.

### 4.2. 错误显示

如果可编程的控制器不能正常工作，故障代码会显示在控制器的显示屏上。

Error 错误代码	Info 信息	Cause 原因
OC	Over Current: Driver's output current exceeds the threshold (200%of rated current) 过流：驱动输出电流超过极限（额定电流的200%）	<ul style="list-style-type: none"> <li>➤ Driver output failure</li> <li>➤ Drive of IPM module is damaged</li> <li>➤ 驱动输出故障</li> <li>➤ IPM模块的驱动装置损坏</li> </ul>
OV	Over Voltage: Main circuit DC voltage exceeds the threshold 过压：主电路直流电压超过极限	<ul style="list-style-type: none"> <li>➤ Over power of the power supply</li> <li>➤ Power-supply voltage exceeds settings</li> <li>➤ 电源过负载</li> <li>➤ 电源电压超过设置</li> </ul>
UV	Under Voltage: The main electric current is too low 电压不足：主电流太低	<ul style="list-style-type: none"> <li>➤ Supply voltage fluctuation is too large</li> <li>➤ 电源电压波动太大</li> </ul>
OH	Overheating: Heat sink on the motor overheating. 过热：电机散热片过热	<ul style="list-style-type: none"> <li>➤ Temperature in the surrounded environment is too high</li> <li>➤ 周围环境温度太高</li> </ul>
NF	No Water Flow: Absent of water, no water current 无水流：缺水，当前没有水	<ul style="list-style-type: none"> <li>➤ Water level in the pool is too low</li> <li>➤ Not enough water in the basket when starting</li> <li>➤ 泳池的水平面太低</li> <li>➤ 起动时滤篮里的水不够</li> </ul>

### 4.3. Service Parts.

Refer all service to your local agent or dealer as his knowledge of your equipment makes him the best-qualified source of information. Order all repair parts through your dealer. Please give the following information when ordering repair parts:

- Unit nameplate data or serial number on label.
- Description of part.

### 4.3. 维修零件

若需任何服务请联络本地代理商或经销商，他们对设备的知识确保能提供最佳的专业信息。请通过您的经销商订购所有维修配件。

订购配件时请提供下列信息：

- 设备名称、铭牌上的数据或标签上的系列号。
- 零件描述

### 4.4. Trouble Shooting Guide.

#### **Pump Does Not Start.**

- Check power supply is present.
- Check mains cord is plugged in.
- Fuses blown or thermal overload open
- Locked or Jammed motor shaft - Contact Service Agent.
- Motor windings burned out - Contact Service Agent.
- Disconnected or defective wiring.

#### **Pump Does Not Reach Correct Speed.**

- Low Voltage - Contact Service Agent.

#### **Motor Overheating.**

- Ensure adequate ventilation.

#### **No or Poor Water Flow.**

- Ensure pump is primed.
- Ensure there is no air entering suction side.
- Basket Full of Debris.
- Water Level in pool adequate.

Contact Your Local Service Agent for Further Assistance.

### 4.4. 故障排除指南

#### **水泵不启动**

- 检查是否有电源供应。
- 检查电源线是否插好。
- 保险丝是否烧断或过热保护装置开启。
- 电机轴是否锁死或卡住 - 联络服务代理。
- 电机绕组烧坏 - 联络服务代理。
- 接线断开或有缺陷。

#### **水泵达不到正确的转速**

- 电压低 - 联络服务代理。

#### **电机过热**

- 确保通风良好。

#### **无水流或出水量不足**

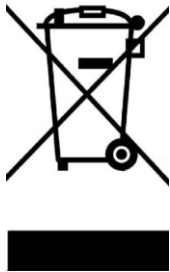
- 确保电机已起动。
- 确保没有空气进入吸水端。
- 滤篮内是否塞满杂物。
- 泳池里的水平面是否适当。

若需更多帮助，请联络您的本地服务代理。

## 5.Warning

- Pump is to be supplied by an isolating transformer or supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

### Correct Disposal of this Product



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

## 5. 警告

- 水泵的电源必须由绝缘变压器或通过漏电保护器（RCD）供应，漏电保护器的额定漏电流不超过30mA。
- 如果电源线损坏，为了防止发生危险，必须由生产厂家或其服务代理或者有同样资质的人员更换。
- 此设备可以由8岁及以上的儿童以及身体、知觉或精神有障碍的或者缺少经验和知识的人士操作，只要他们处于监管之下或者接受过关于如何安全使用此设备的指导并了解可能遇到的危险。儿童不应把此设备当玩具玩耍。儿童不能在没有监管下对设备进行清洁和维护。

### 本产品正确的废置处理



此标示表示在整个欧盟本产品不应与其它生活垃圾一起处理。为了防止未受控制的废物处理对环境或人类健康可能造成的伤害，应负责任地重复利用废物以促进物质资源可持续性地重复利用。请利用回收系统或联络销售此产品的零售商回收您的旧设备。他们能为了环保安全回收的需要接受此产品。