



For Mini RC Car

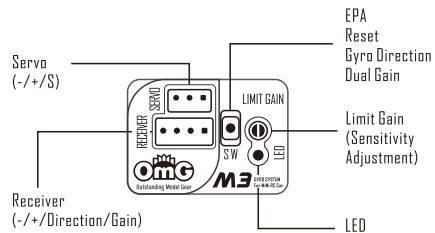
# M3 GYRO SYSTEM USER MANUAL

Weight:14g Dimension: 21x15x8.8mm

## SPECIFICATION

- ◆ Current Drain: 20mA/6V ◆ Operating temperature: -10C+50C
- ◆ Operating Voltage: 3.7-8.4V ◆ Control System: PID Control System
- ◆ Input Signal: PWM (50-333Hz)/SANWA SHR: SSR/FUTABA S.BUS
- ◆ Dual Gain Mode: Normal/Sensitive Mode
- ◆ Output Signal: I520uS (50Hz/333Hz) / SANWA SSR
- ◆ Input & Output Plug: JST 1.5mm(attached the signal input cable to connect with receiver)

## CONNECTION DIAGRAM



## LED STATUS

LED	Status	Gain Adjustment Method
Red Fast Flash	Initialization	/
Orange Fast Flash	Loss of Control Signal	/
Yellow-green Solid Light	Normal Gain Mode	Gain Signal Input
Yellow-green Slow Flash	Normal Gain Mode	Potentiometer Adjustment
Red Solid Light	Sensitive Gain Mode	Gain Signal Input
Red Slow Flash 3 Times	Normal/Sensitive Mode Set	/
Orange Slow Flash 3 Times	Forward and Reverse Gain Set	/
Orange Slow Flash	Travel Set Mode	/

## FUNCTION INSTRUCTION OF SWITCH

### EPA (Travel Setting)

Press the switch to power on, orange slow flash, enter into servo travel set mode, rotate the remote control steering to make the servo stop at the required position (to left or to right). Short press the switch, orange light fast flash 2 times, red solid light, then yellow-green slow flash, it means current travel has been saved. Rotate the remote control steering again to make the servo stop at another required position, short press the switch, orange light fast flash 2 times, then solid light, it means current travel has been saved as well. After 2 seconds gyro enter into initialization automatically, once completed, gyro is ready for use.

### Reset (Travel Restore Default Setting)

Press the switch to power on to travel set mode, hold press switch 3 seconds, red light and yellow-green flash alter nately. Restore to default after 2 seconds. Then enter into initialization, once the initialization process has been completed, the gyro is ready for use.

### Gyro Direction (Forward and Reverse Gain Setting)

In the normal working state, hold press switch 4 seconds, orange light slow flash 3 times, reverse gain direction.

### Dual Gain Mode Set

In the normal working state, fast press switch 2 times, red slow flash 3 times, change normal mode/sensitive mode.

## RECEIVER CONNECTION (INPUT SINGAL MODE)

PWM (50-333Hz) suitable for most remote control systems, while plug-in the gain wire, it can adjust the sensitivity by transmit-ter(See PIC1); While do not plug-in the gain wire, it can adjust the sensitivity by the potentiometer of gyro itself (See PIC 2).

FUTABA S.BUS suitable for FUTABA S.BUS control systems. When use S.BUS signal input, default CH3 channel for sensitivity adjustment, and the gain wire is not used.

SANWA SSR/SANWA SHR suitable for SANWA control system, when use SSR / SHR signal input, the output signal adapts to SSR / SHR signal automatically.

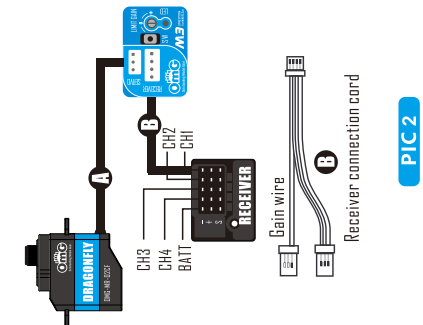
**REMARK:**SAMWA SSR signal only for SSR servo, may cause permanent damage to the regular servo.

## LIMIT GAIN (GAIN ADJUSTMENT)

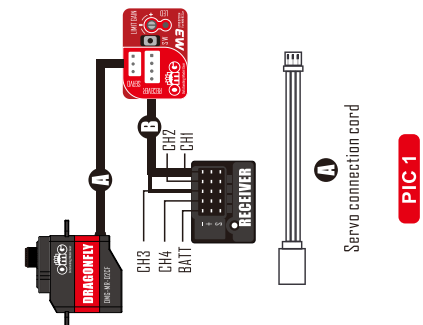
Through remote sensitivity channel to adjust sensitivity) by default when SBus input), the range is -100% ~ 0 ~ +100%.

**A** 0 means sensitivity zero **B** -100% / +100% is maximum sensitivity.

While not used gain wire to input, they gyro is in normal mode only, use .potentiometer of gyro to adjust sensitivity, yellow-green slow flash.



PIC 2



PIC 1



适用于蚊车

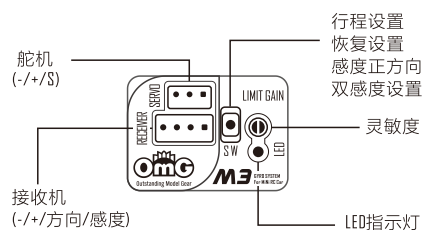
# M3 车用陀螺仪 使用说明书

重量:14g 尺寸: 21x15x8.8mm

## 产品参数

- ◆ 耗电流: 20mA/6V ◆ 工作温度: -10°C+50°C
- ◆ 工作电压: 3.7 ~ 8.4V ◆ 控制系统: PID 控制系统
- ◆ 支持输入信号: PWM (50-333Hz) / SANWA SHR: SSR / FUTABA S.BUS
- ◆ 双感度增益模式: 正常/灵敏感度模式
- ◆ 输出舵机信号:I520uS (50Hz/333Hz) / SANWA SSR
- ◆ 输入输出插头: JST 1.5mm (产品附送信号输入线, 对接接收机)

## 指示说明



## 指示灯状态说明

LED	状态	感度调整方式
红色快闪	陀螺仪初始化	/
橙色快闪	遥控信号丢失	/
黄绿色常亮	正常感度模式	感度信号输入
黄绿色慢闪	正常感度模式	电位器调整
红色常亮	灵敏感度模式	感度信号输入
红色慢闪3次	正常/灵敏感度模式设置	/
橙色慢闪3次	感度正反向设置	/
橙色慢闪	行程设置模式	/

## 功能开关操作说明

### 行程设置

按着 SW 开关上电, 橙灯慢闪, 进入舵机行程设置, 旋转遥控器方向舵, 使舵机转到所需要的位置上 (可向左/右边), 短按一下SW开关, 橙灯快闪2下, 红灯变成常亮, 黄绿灯慢闪, 表示这个行程已经保存, 再旋转遥控器方向舵, 使舵机转到另一方向所需要的位置, 短按一下开关, 橙灯快闪2下, 然后橙灯亮起, 表示这个行程也已经保存。2S后陀螺仪自动进入初始化, 初始化完成后可以正常工作。

### 行程恢复默认设置

按着 SW 开关上电, 进入行程设置模式, 长按开关 3S 后, 红、黄绿灯开始交替闪烁, 2S后恢复成默认设置, 然后进入初始化, 初始化完成后可以正常工作。

### 感度正反向设置

正常工作状态下, 长按SW 开关 4S 后, 橙色慢闪3次, 切换感度正反向。

### 双感度增益模式设置

在正常工作状态下, 快速按 SW 开关 2次, 红色慢闪 3次, 切换正常/灵敏感度模式。

## 信号输入模式

PWM (50-333Hz) 适用于大部分遥控系统, 当插入感度线时, 通过遥控器调整感度大小 (如图一); 当不插入感度线时, 使用陀螺仪本身电位器来调整感度大小 (如图二);

FUTABA S.BUS 适于 FUTABA S.BUS 遥控系统, 当使用 S.BUS 信号输入, 默认CH3 通道调整感度大小, 陀螺仪感度线不用;

SANWA SSR/SANWA SHR 适用于 SANWA 遥控系统, 当使用SSR / SHR 信号输入时, 输出信号自动适配为 SSR/SHR 信号。

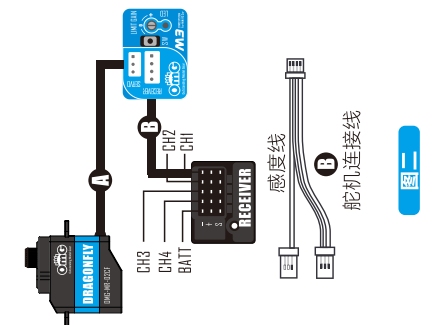
**注意:** SANWA SSR信号只适用于支持 SSR 舵机, 用普通舵机可能造成永久损坏。

## 感度大小调整

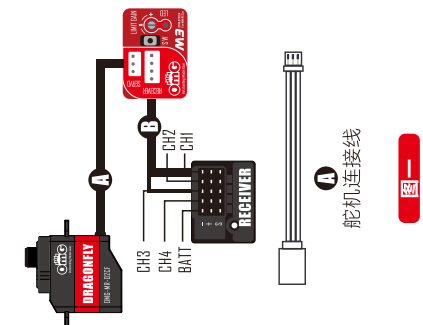
利用遥控感度通道进行感度调整 (S.BUS输入时默认), 范围从-100%-0- +100%。

**A** 0为没有感度 **B** -100% / +100%为感度最大

当没有使用感度线输入时, 陀螺仪只能使用正常模式使用陀螺仪本身电位器来做感度大小调整, 黄绿灯慢闪



PIC 2



PIC 1