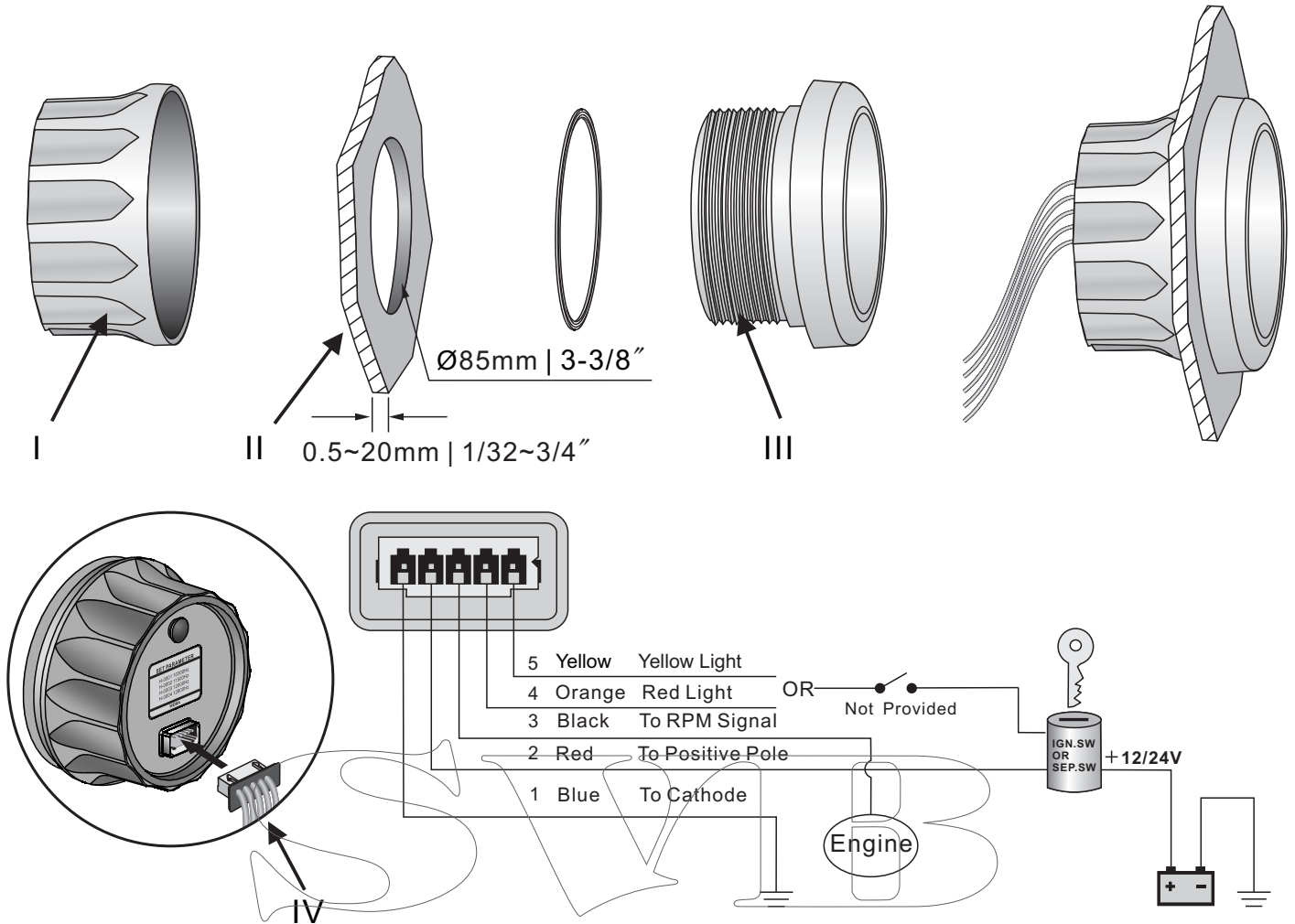


INSTALLATION INSTRUCTIONS



INSTALLATION STEPS

1. Cut a 85 mm(3 3/8") diameter panel hole(II). You will need a minimum clearance of 55mm(2 3/16") behind the panel to fit the gauge.
2. Take off the fastening ring(I), place the gauge into the panel hole, adjust its position and then fasten the rear cover.
3. According to wiring instruction to do wire connection. Gauge can be connected to 12VDC and 24VDC power directly.
4. Select either red or yellow backlight by your fondness.
5. Insert the wire connector into the gauge (IV), adjust its speed ratio to get a suitable value after power on, according to the rotate speed of your equipment.

Instruction for speed ratio adjustment:

- a. Keep on pressing the rubber button of the backside for 3 seconds, and then enter into setting mode. if leave button more than 3 seconds, it will be out of setting mode.
- b. The value will increase when you press the button; When you leave the button and then press it again, the value will decrease,. The longer you press the button, the quicker the value will count up. The minimum step value is 0.1 and the adjustable range is 1-10.
- c. When you get the required speed ratio value after adjustment, please leave the button. The tachometers will autoclave your setup after 3 seconds. If the setup doesn't meet your demand, please re-setup.
- d. If you want to adjust the speed ratio value to 4.0, please adjust it to 4.0 in setting mode, as the following picture.

The common setup on boat engine:

Poles	Outboard			Inboard & Gas engine					
	4000RPM	6000RPM	8000RPM	Cylinder	Cycle	4000RPM	6000RPM	8000RPM	
4	1.3	2.0	2.6	4	4	1.3	2.0	2.6	
6	2.0	3.0	4.0	6	4	2.0	3.0	4.0	
8	2.7	4.0	5.3	8	4	2.7	4.0	5.3	
10	3.3	5.0	6.6	10	4	3.3	5.0	6.6	
12	4.0	6.0	8.0						

Speed ratio setting :

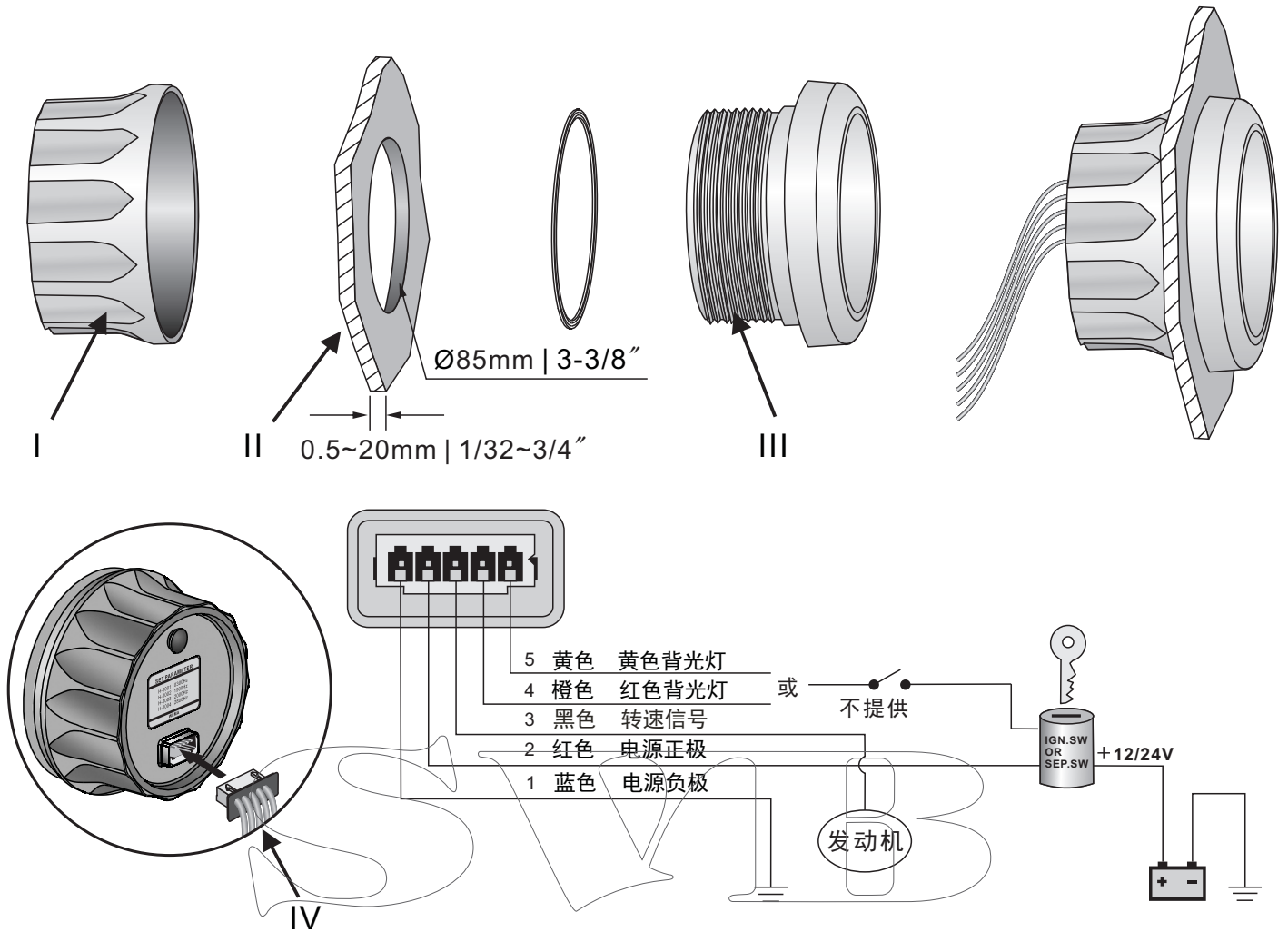


If your engine doesn't meet rules on the table, please adjust speed ratio value according to actual rotate speed of engine.

Notice :

In some place where there is heavy tacho signal disturbance, the pointer of the tachometer may not move along with the changing of the rotate speed. Please add a resistor between 1/4~1W, 1~20K in series connection to strengthen the signal processing capability. We suggest adding a 20K potentiometer in series connection to test.

INSTALLATION INSTRUCTIONS



安装步骤

1. 在仪表板上开一个直径为 $\Phi 85\text{mm}$ ($3\frac{3}{8}$ ")的孔(II), 并确保仪表板后面至少要有 55mm ($2\frac{3}{16}$ ")的空间来放置仪表。
2. 去掉固定圈(I), 将仪表装入开好的孔中, 调整好位置后将后盖圈拧紧。
3. 按接线说明图将电线连接好, 仪表可直接连接到 $12/24\text{V}$ 的电源上。
4. 可根据您的喜好选择红色或黄色的背光灯。
5. 将电线的连接器插入仪表(IV), 通电后根据您所测量设备的转速要求, 调整到合适的速比。

速比调整说明:

- a. 按住仪表背后的橡胶按钮3秒钟, 进入设置模式。如果松开按钮大于3秒钟, 将退出设置模式。
- b. 按住按钮, 数值一直递增; 松开按钮再按住按钮, 数值一直递减。按钮按住的时间越长, 数值计数越快。计数最小步进值 0.1 , 可调范围 $1-10$ 。
- c. 调整到符合您的要求速比值后, 请松开按钮。3秒后转速表自动保存您设置的结果。如果设置不符合您的要求, 请重新设置。
- d. 如果您要将速比值调整到 4.0 , 则请在设置模式下将数值调整到 4.0 即可, 如下图。

船用发动机上的常用设置:

磁极数	舷外机			舷内机&汽油机				
	对应速比			汽缸数	冲程	对应速比		
4000RPM	6000RPM	8000RPM	4000RPM			6000RPM	8000RPM	
4	1.3	2.0	2.6	4	4	1.3	2.0	2.6
6	2.0	3.0	4.0	6	4	2.0	3.0	4.0
8	2.7	4.0	5.3	8	4	2.7	4.0	5.3
10	3.3	5.0	6.6	10	4	3.3	5.0	6.6
12	4.0	6.0	8.0					

速比设置:



如果您的发动机不符合表格中的规律, 请根据发动机的实际转速调整速比值。

注意:
 在一些转速信号干扰很大场合, 转速表的指针可能不随转速的变化而移动。请在转速信号线上串接 $1/4-1\text{W}$, $1-20\text{K}$ 之间的电阻, 以增强信号的处理能力。建议串联一个 20K 的电位器来测试。