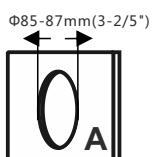


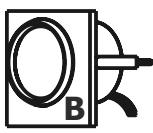
OWNER'S MANUAL

106-00305-01 ECP

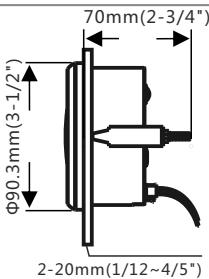


如A图，在准备安装仪表面板上开孔Φ85~87mm，并保证面板后面有至少70mm的空间。

Pic A : Before installation , firstly , to open a hole (Dia:85~87mm) of the panel, make sure there is a space with (70mm backyard of panel) as well



如B图，将仪表放入开好孔的仪表面板中
PicB: Put the gauge in the hole



技术参数 :

工作电压 : 9~32VDC ,

工作电流 : ≤150mA;

工作温度 : -30~+75°C

存储温度 : -40~+85°C。

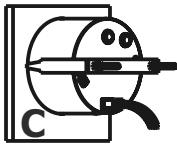
Specification :

Operating Voltage : 9~32VDC ,

Operating current : ≤150mA;

Operating temperature : -30~+75°C

Storage temperature : -40~+85°C.



如C图，用M4螺母和C型固定扣将仪表锁紧在仪表板上

Pic C: Using M4 nut and C type bracket to seal up the gauge

GPS installation instructions/天线安装说明:



GPS天线正面安装:
Installed in front:



最好的安装方式
Best

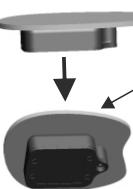


一般安装方式
General



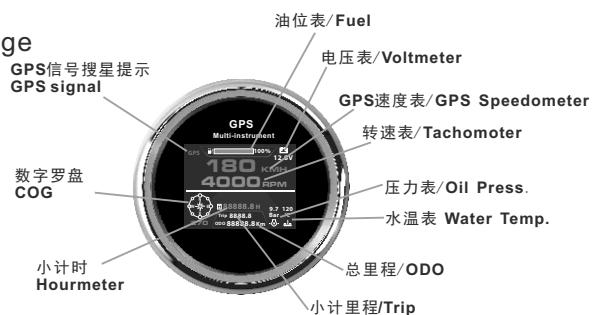
可能收不到GPS信号
Cann't receive
GPS signals

GPS天线反面安装
Installed in reverse:



此面要求是塑
胶或不能屏蔽
GPS信号的材
质.
this surface
mateiral required
plastic or can
not shield GPS signal
material

GPS天线反向安装
Reverse the GPS antenna installation



仪表基本说明 :

- 1、转速表显示范围 : 0~9999 RPM
- 2、速度表显示范围 : 0~999 km/h, MPH, Knots
- 3、温度表显示范围 : 40~120°C(104~248°F)
- 4、油量表显示范围 : 0~100%
- 5、压力表显示范围 : 0~5Bar/ 0~10Bar
0~100Psi/0~150Psi

6、总里程显示范围: 0~99999.9

7、小时计显示范围 : 0~99999.9

8、Trip里程显示范围 : 0~999.9

9、电压表显示范围 : 8~32V

Multifunction Instruction:

- 1.Range of tacho:0~9999 RPM
- 2.Range of speed:0~999 km/h, MPH, Knots
- 3.Range of water temp :40~120°C(104~248F)
- 4.Range of fuel: 0-100%
- 5.Range of pressure :0~5bar/0~10bar
0~100Psi/0~150Psi
- 6.Range of ODO:0~99999.9 km, miles, knots
- 7.Range of hours:0~99999.9 hours
- 8.Range of trip:0~999.9 km/h, MPH, Knots
- 9.Range of Volt: 8~32V

转速表速比调整说明 :

- 1) 速比可调范围:1~300.
- 2) 如果您的传感器安装在飞轮盘上,速比值等于发动机齿数;如果转速信号取自W点信号,速比值等于电极数的一半(Poles/2)

典型速比设置参考 :

舷外机	
电极数	速比
4	2
6	3
8	4
10	5
12	6

舷内机或汽油机		
气缸数	冲程	速比
4	4	2
6	4	3
8	4	4
10	4	5
12	4	6

柴油发动机	
飞轮齿数	速比
速比=发动机飞轮齿数	

H-0960
表示设置速比=96

Speed ratio :

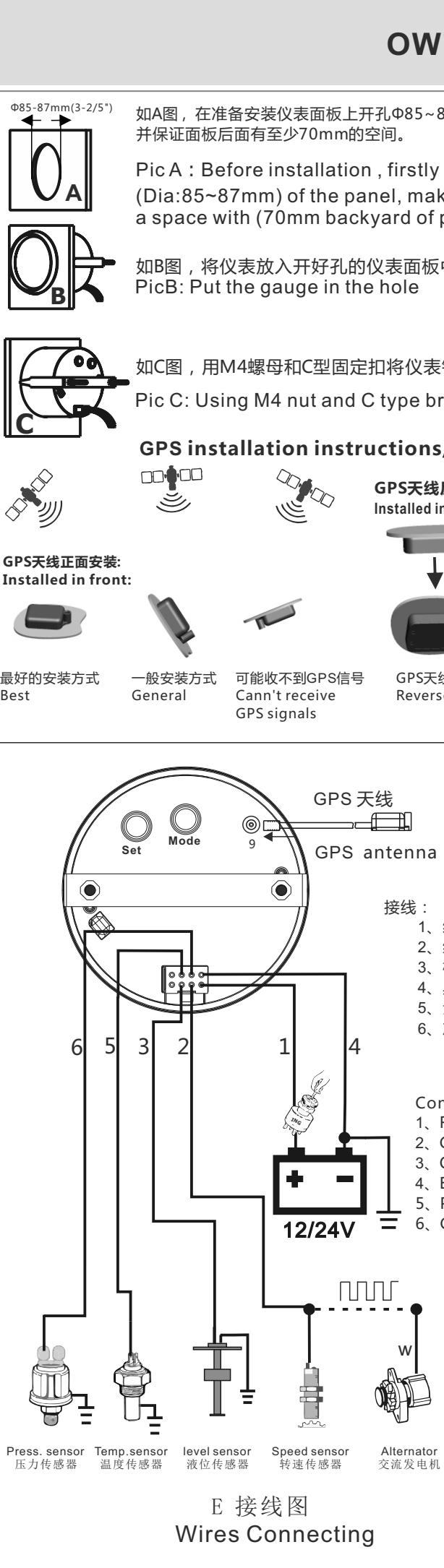
- 1) Range of speed ratio:1.0~300.0;
- 2) If your transmitter is installed on the flywheel, come from w point signal, the ratio value is equal to half electrodeplate (Poles/2). If it is the gasoline engine, the speed ratio is equal to the number of cylinders (cylinder/2).

Typical ratio setting reference:

Outboard poles	speed ratio	Inboard or Gas engine cylinder	cycle	speed ratio
4	2	4	4	2
6	3	6	4	3
8	4	8	4	4
10	5	10	4	5
12	6	12	4	6

Diesel engine	
Gear number	speed ratio
speed ratio=Gear number	The set speed ratio=96

H-0960
表示设置速比=96



GPS速度表说明：

1、参考E图连接电线，然后打开电源，仪表即可开始工作，仪表开始工作时，处于搜索信号状态，速度表会自动计数，计数到300，且GPS图标闪烁，如果没有搜索到GPS信号：显示E01；处于搜星状态或中途GPS信号丢失，速度表开始计数，计数到300，仍然没有GPS信号，显示E02；如果搜索到GPS信号，GPS图标常亮，正常显示速度。

2、轻触仪表背面的Mode按键，可以实现KNOTS、MPH、KM/H单位的切换，并自动保存。

TRIP：小计里程 默认掉电清零。

ODO：累计里程，掉电数据不清零。

3、故障代码：
 : E01 表示上电时GPS搜索不到GPS信号。
 : E02 表示中途GPS信号丢失。
 : E03 表示仪表内部电路出现故障。

功能选择说明：

1、按键功能：

- 按住Mode按键3秒，进入参数设置模式，小时计显示 Y-XXX.X (Y, X代表数字) 轻按(小于2秒) Set按键，Y递增 0~14循环显示。
- 进入参数设置模式后，调节速比时：长按Mode按键，XXX.X 数字递增，松开Mode按键，再长按，XXX.X 数字递减 轻按按键 XXX.X 数字 增1或减1。
- 对照下面表格调整到你需要的数据后，松开 Mode 和 Set按键3秒后，数据自动保存。
- 轻按(小于2秒) Mode按键，调试速度单位：MPH(默认)→Km/h→Knots。
- 举例：如调整到2-0001表示水温表，调整到1-096.0，表示转速表速比设置到96.0。

参数组分配说明		
参数组	功能说明	备注
转速表	Y -XXX.X 1 -001.0~300.0 2 -0000 2 -0001 2 -0002~0009	1.0~300.0 速比可调范围 默认 301-23 Ω 预留
水温表	3 -0000 3 -0001 3 -0002 3 -0003 3 -0004~0009	10-184 Ω 显示0-5bar 10-184 Ω 显示0-10Bar 240-33 Ω 显示0-100PSI 240-33 Ω 显示0-150PSI 预留
压力表	4 -0000 4 -0001 4 -0002 4 -0003 4 -0004 4 -0005~0009	0-190 Ω 默认 0-180 Ω 10-180Ω 240-33Ω 240-30Ω 预留
油位表	5 -0000 6 -0000 6 -0001 7 8 -0000~0008 8 -0009 8 -0010 9 10	8-32V 根据实际电压显示 数据不存储 数据存储 预留 预留 ODO数据清零 小时计数据清零 预留 预留
电压表	11 -040~-250	≥该设定值温度图标闪烁 代表 40~120°C 或 40~250°F
数据清零	12 -000~-100	≤该设定值压力图标闪烁 代表 0~10.0bar 或 0~100PSI 报警
温度报警设置	13 -000~-100	≤该油位设定值油位图标闪烁 报警
压力报警设置	14 -001	摄氏度 (°C) 华氏度 (°F)

注：对应的仪表出现报警，对应的仪表图标闪烁
 电压表12V系统低压报警≤11.3V报警；
 24V系统低压报警≤22.6V报警。
 仪表自动识别12V或24V电源系统

GPS Speedometer:

- Power on, to finish connection as picture E
 Firstly, the GPS speedometer will start searching GPS signal input , within 0 to 300 seconds counting . If the device could not found any GPS signal within 300 seconds, there will be an error code "E01" indicating. If the device lose its GPS signal input , then it will restart to search again , if it could not found any GPS sign input in following 300 seconds, there will be error code "E02" indicating. But , generally, the device will read GPS signal input then ready for working .
- The speed unit(MPH(default)→Km/h→Knots) could be switched by quick press the MODE button , then recorded.
 TRIP: Subtotal mileage, data wil be reset when power off as default
 ODO: Total mileage, data will be recorded when power off
- Error Code
 E01 : The GPS signal could not be found
 E02 : The GPS signal was lost midway.
 E03 : Malfunction of the device

Operation:

- Button:
 a.Firstly, hold the button (≥ 3 seconds) to entry setting mode, Hourmeter parts :Y-XXX.X digital Y,X)to quick press(≤ 2 seconds) the Set button to have the digital Y indicating from 0~14 cycly
- At this time , user hold the Mode button again , the digital XXX.X will be increasing ; If user release then hold the Mode button again, the digital XXX.X will be decreasing repeatly.
- Please refer to below parameter group ,and set all the feature/value /funtion required, all data will be recorded will be recorded if you release both Mode and Set button(≥ 3 seconds)
- Quick press the Mode button to switch the speed unit MPH(default) →Km/h→Knots
- Example
 Value 2-0001-- Water temperature gauge
 Value 1-096.0-- Speed ratio was set as 96.0

Parameter Group			
	Value	Technical Data/Feature	Remarks
Tachometer	Y -XXX.X 1 -001.0~300.0 2 -0000 2 -0001 2 -0002~0009	.XXX.X -001.0~300.0 0000 0001 0002~0009	1.0~300.0 Speed ratio range Default Reserved Default(5bar)
Water temperature gauge	3 -0000 3 -0001 3 -0002 3 -0003 3 -0004~0009	291.5~22.4 Ω 301~23 Ω 0002~0009 0000 10-184 Ω	291.5~22.4 Ω 301~23 Ω Reserved 10-184 Ω Indicating 0-10Bar
Oil pressure gauge	3 -0000 3 -0001 3 -0002 3 -0003 3 -0004~0009	240~33 Ω 240~33 Ω 240~33 Ω 0000~0009 0000	240~33 Ω 240~33 Ω 240~33 Ω 0000~0009 Indicating 0-100PSI Indicating 0-150PSI Reserved
Fuel level gauge	4 -0000 4 -0001 4 -0002 4 -0003 4 -0004 4 -0005~0009	0-180 Ω 0-180 Ω 10-180Ω 240-33Ω 240-30Ω 0005~0009	0-180 Ω 0-180 Ω 10-180 Ω 240-33 Ω 240-30 Ω Reserved
Voltmeter	5 -0000	8-32V	Device could identify the 12V/24V system automatically
Trip	6 -0000 6 -0001	Data will NOT be recorded Data will be recorded	Reserved
Reset	7 8 -0000~0008 8 -0009 8 -0010	Reserved -0000~0008 0009 Total hours reset	Reserved Reserved Total hours reset
Temperature alarm setting	9 10 11 -040~-250	Reserved Reserved -040~-250	Setting from 40~120 °C or 40~250°F
Oil pressure alarm setting	12 -000~-100	The icon will be flickering when the oil pressure ≤ appointed value	Setting from 0~10bar or 0~100psi
Fuel level alarm setting	13 -000~-100	The icon will be flickering when the fuel level ≤ appointed value	Setting from 0~100%
Temperature unit switch	14 -001 14 -001	Celsius equals(°C) Fahrenheit equals(°F)	

NOTE:1) The icon will be flickering when the alarm was triggered

2) For volmeter:

- 12V system -- the icon will be flickering when the input voltage ≤ 11.3 V
- 24V system -- the icon will be flickering when the input voltage ≤ 22.6 V

3) The device could identy its input power is 12V or 24 V automtically