

KMG-30K Instruction Manual



CONTENTS

- I、Gauge and Accessories in Package
- II、Installation Steps
- III、Appearance Parameter
- IV、Electronic Parameter
- V、PINS Definition
- VI、KMG-30K Usage
- VII、Modify system Settings
- VIII、Menu Diagram Setting
- IX、NMEA 2000 & J1939 Parameter Group Number (PGN)

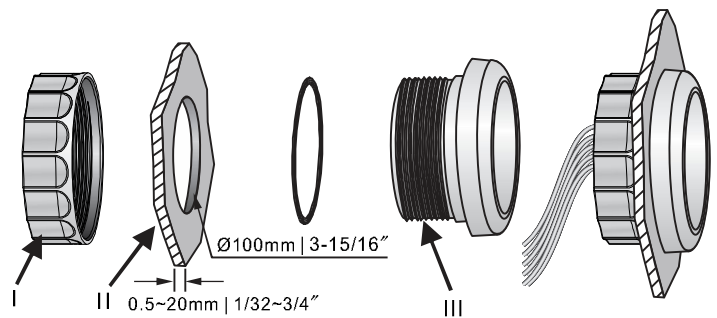
KMG-30K is a multi-functional round LCD instrument, which can display multi-kinds of data at the same time : RPM, speed, fuel level, water temperature, oil pressure and hour meter, and it supports NMEA 2000 signal, J1939 signal and analog signal input.

I、Gauge and Accessories in Package

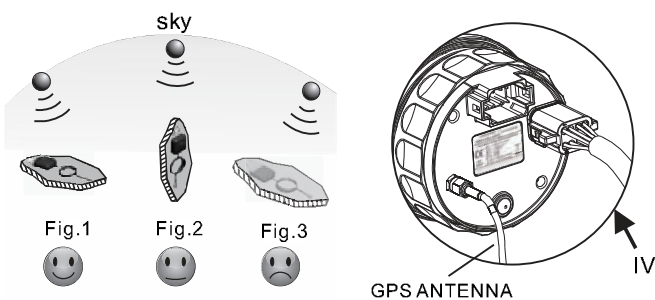
KMG-30K instrument, CAN-BUS cable, Analog signal cable, GPS antenna and Instruction manual.

II、Installation Steps

1. Drill an 100.5mm (3 15/16") hole on the panel (II) and make sure a clearance of 80mm (3 1/4") on the backside of the panel for KMG-30K gauge.
2. Remove fastening ring (I), insert KMG-30K gauge from front side, and use the fastening ring (I) to fix the gauge (III) after position adjustment.
3. Connect wires and GPS cable to meter (IV).
4. Connect the cable to the connector hole on the backside of KMG, the other end connects with NMEA 2000 network. If chose analog signal input, it needs to connect pin of analog signal input with sensor.



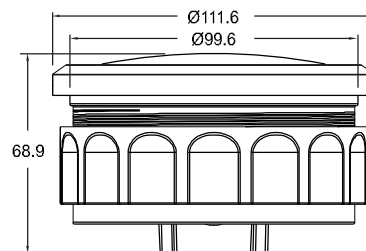
GPS Antenna Installation:



5. Install the GPS antenna outdoors and ensure that GPS antenna receiving signals faces the sky, as shown in Fig. 1; If the GPS antenna is installed as shown in Fig.2, the reception of GPS signal will be impacted; If the GPS antenna is installed as shown in Fig.3, it will have a big impact on the GPS signal, and the signal even not be received when the signal is weak.
6. It takes about one minute for the instrument to receive the satellite signal when powers on. Normally when the signal is strong, the location can be completed within 40 seconds (the initial positioning may take 1-2 minutes). Once the boat moves, and the pointer will move and show relative speed over ground(SOG). All the data will not change during the period the boat stops, so the pointer cannot be used for reference. But all the data will turn into accurate once the boat moves.

III、Appearance Parameter

1. Dimension : 3.0 inch
2. Resolution : 432*432 pixels
3. Mounting Dimension : $\phi 100.5$ mm
4. Appearance Dimension : $\phi 111.6$ mm

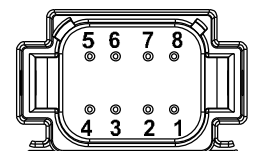


IV、Electronic Parameter

1. Working voltage : 9 – 32 VDC
2. Working current : ≤ 170 mA (12V)
3. Working temp. : -30~+85 °C(-22°F~+185°F)
4. Storage temp. : -30~+85 °C(-22°F~+185°F)

V、PINS Definition

1. 4 cores cable red wire-RPM
2. 4 cores cable blue wire-Fuel Level
3. 4 cores cable yellow wire-Water Temp.
4. 4 cores cable black wire-Oil Pressure
5. 2 cores cable red wire-Battery(+)
6. 2 cores cable black wire-Battery(-)
7. CAN-H
8. CAN-L



VI、KMG-30K Usage

1. "MODE" button: confirmation
2. ▲ button: Move up/add
3. ▼ button: Move down/reduce
4. Value Setting Page, keep press ▲ button: add 10
5. Value Setting Page, long press ▼ button: reduce 10
6. Click "MODE" on the home page to enter the Settings page.
7. When locked, you need to type the correct password to enter the Settings page. The initial password is 1234
8. On the password input page, the "MODE" button is to move the cursor to the next password, and the "up" and "down" button are to increase or decrease the values of the current cursor.
9. When the signal is J1939, if DM1 fault occurs, the ▲ red flashing alarming icon will appear in the lower left corner of the interface of styles 1, 2 and 3.

Note: when using analog signal input, please pay attention to the insulation at the end of the unused analog signal cables. It is strictly forbidden for the power cord and signal line to touch together.

VII、Modify system Settings

1.Modify Display System :	Setting → Display Setting → Style Setting
2.Modify RPM Range :	Setting → Display Setting → RPM Setting
3.Modify GPS Setting :	Setting → Display Setting → GPS Setting
4.Modify Unit Setting :	Setting → Display Setting → Unit Setting
5.Modify Color Setting :	Setting → Display Setting → Color Setting
6.Modify Brightnesss Setting :	Setting → Display Setting → Brightness Setting
7.Modify Language Setting :	Setting → Display Setting → Language Setting
8.Modify Fuel Level, Water Temp., Oil Pressure Alarm Value :	Setting → Alarm Setting
9.Modify Sigaln Input Select :	Setting → Input Select
10.Modify Signal Input Setting	Setting → Input Setting
11.Modify Night state:	Setting → Night ON/OFF(The Night Mode will automatically turn off when the meter is powered on again)
12.Modify Locking Password :	Setting → Lock Setting → Reset Password
13.Modify Locking Time :	Setting → Lock Setting → Lock Time
14.Modify Locking state:	Setting → Lock Setting → Lock ON/OFF
15.When set to style 3, it will have below four analog signal input :	
a.Fuel(0-190 or 240-333 ohm)/Trim(0-190 ohm or 160-10 ohm)(choose one of two)	
b.Oil pressure alarm(Switching SIGNAL, low alarm)	
c.Water Temperature(Switch signal, low alarm)	
d.Speed ratio(0.5-250.0)	

VIII、Menu Diagram Setting

Display Setting	Style Setting	style_1/style_2/style3		
	RPM Setting	4000/6000/8000		
	GPS Setting	GPS Antenna NMEA2000 Network		
	Unit Setting	Speed Unit	knots/(km/h)/MPH	
		Temp. Unit	Celsius/Fahrenheit	
		Pressure Unit	bar/psi	
	Color Setting	Black/White		
Brightness	10%-100%			
Language	English/中文			
Alarm Setting	Fuel Level	0-100%		
	Water Temp	40-120°C/100-250°F		
	Oil Pressure	0-10bar/0-145psi		
Input Select	NMEA2000			
	J1939			
	ANALOG			
Input Setting	Instance Setting	Engine	0-15	
		Fuel Tank	0-15	
	DTC(DM1)			
	Fuel Level	0-190 ohm		
		240-33 ohm		
		Customized		
	Water Temp.	301-23 ohm		
	Oil Pressure	10-165 ohm		
		Customized		
Ratio Setting	0.5-250			
Night ON/OFF				
Lock Setting	Reset Password			
	Lock Time			
	Lock ON/OFF			

IX、NMEA 2000 & J1939 Parameter Group Number (PGN)

NMEA 2000

PGN	PGN name	DD#	Field Name
127488	Engine Parameters	129	Engine Speed
127505	Fluid Level	208/215	Fluid Type/Fluid Level
		049	Engine oil pressure
127489	Engine Parameters	043	Engine temp.
		132	Total engine hours

SAE-J1939

PGN	PGN name	SPN	Parameter Name
61444	Electronic Engine Controller 1	190	Engine Speed
65276	Dash Display	96	Fuel Level
65263	Engine Fluid Level/Pressure 1	100	Engine Oil Pressure
65262	Engine Temperature 1	110	Engine Coolant Temperature
65253	Engine Hours	247	Engine Total Hours of Operation

