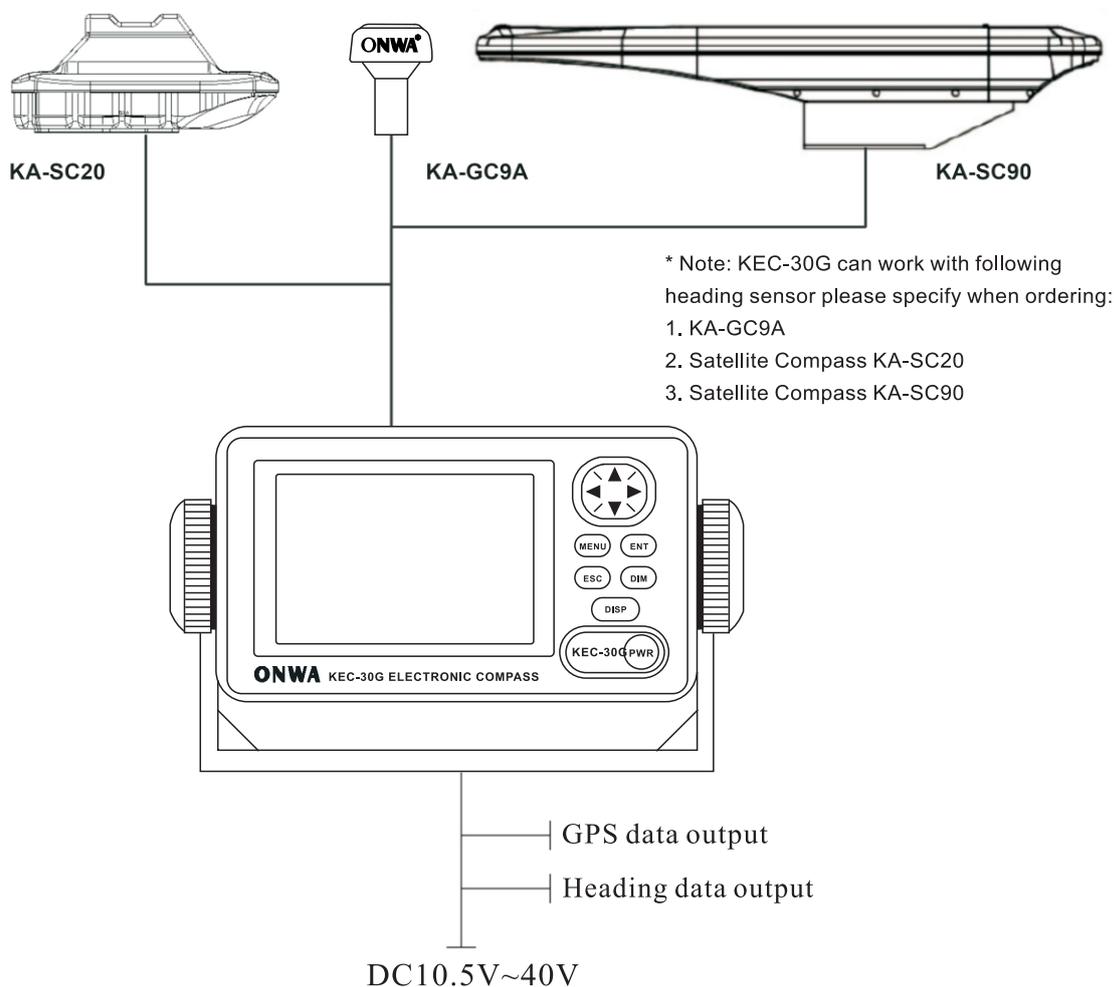# KEC-30G(MK2) Quick Installation Manual
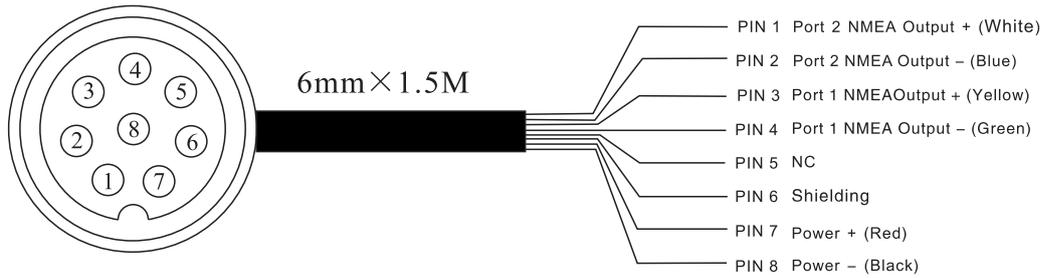

Verifying the contents

When you first time open the box of your KEC-30G electronic compass please confirm you have following items inside the box :

- Display unit KEC-30G
- Heading/GPS sensor, KA-GC9A or Satellite Compass (KA-SC20 or KA-SC90)
- Mounting brackets
- Manuals (quick start and quick installation manual)
- Standard accessories pack (one power/data cable, 2 spare fuses, 4 mounting screws)

Interconnection

KA-SC20   KA-GC9A   KA-SC90

* Note: KEC-30G can work with following heading sensor please specify when ordering:
1. KA-GC9A
2. Satellite Compass KA-SC20
3. Satellite Compass KA-SC90

GPS data output

Heading data output

DC10.5V~40V

● Power/data cable connection

6mm×1.5M

PIN 1 Port 2 NMEA Output + (White)
PIN 2 Port 2 NMEA Output – (Blue)
PIN 3 Port 1 NMEAOutput + (Yellow)
PIN 4 Port 1 NMEA Output – (Green)
PIN 5 NC
PIN 6 Shielding
PIN 7 Power + (Red)
PIN 8 Power – (Black)

Power/data cable connection diagram

Specification

1. Heading sensors

Please download the specifications of the following heading sensors you ordered from http://www.onwamarine.com website

- KA-GC9A
- Satellite Compass KA-SC20
- Satellite Compass KA-SC90

2. Power supply

2.1 Electrical : 10.5 – 40VDC

2.2 Protection : over-current, over-voltage, power transient and accidental reverse polarity protection

3. Output/Input (IEC61162-1)

3.1 Input : 2 x NMEA0183

    a) Input sentences : GGA, GLL, GMS, GNS, GSA, GSV, RMC, VTG, HDT

    b) Baudrate : auto scan up to 115200

    c) Support heading/GPS sensor : KA-GC9A and Satellite Compass (KA-SC20 and KA-SC90)

3.2 Output : 2 x NMEA0183

    Port 1 and Port 2 (RS232) :

    a) Output sentences : HDT, HDM and HDG (selectable) and RMC, GSA, GGA, VTG, ZDA (fixed)

    b) Heading output interval selections : 25ms, 100ms, 200ms (default) and 1,000ms

    c) Output baudrate selections : 4800 (default), 9600, 19200 and 38400 (selectable)

4. Environment conditions

4.1 Ambient temperature

    Display unit :   -15℃ to +55℃

    Heading/GPS sensor unit :   -25℃ to +70℃ (for KA-GC9A)

4.2 Humidity   93% ±3% on 40℃

4.3 Waterproofing

    Display unit :   IPX5

    Heading/GPS sensor unit :   IPX7 (for KA-GC9A)

For more detail please download the full manual from http://www.onwamarine.com