NINGLU   IR-861

Digital Speed and Distance Repeater
Operating &
Installation Manual

Edition IR861EN V101001

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IR861, dual axis speed and distance repeater, displays transversal and longitudinal ships speed information. NINGLU IR861 is used with speed log having NMEA0183 output.

The operator may select between bottom and water related speed when these are provided from log. IR861 indicates trip and total distance measured by the log. Brightness is adjusted on the front panel, or from a remote controller. The display can be deactivated by pressing the up and down buttons simultaneously. The display will reactivated when any button is pressed.

INFORMATION FOR MANUAL

1. Accepted messages (NMEA0183, version 2.30), talker identifier is not rocessed:
VBW - Dual Ground/Water Speed.
$--VBW,x.x,x.x,A,x.x,x.x,A,x.x,A,x.xA*hh<CR><LF>

VTG - Course Over Ground and Ground speed
$--VTG,x.x,T,x.x,M,x.x,N,x.x,K,a*hh<CR><LF>
Note: Fields, containing course information (underlined) are not processed
Note: km/hour field is not processed

VHW - Water speed and heading
$--VHW,x.x,T,x.x,M,x.x,N,x.x,K,*hh<CR><LF>
Note: fields, containing heading information (underlined) are not processed
Note: km/hour field is not processed

VLW - Distance Traveled through the Water
$--VLW,x.x,N,x.x,N*hh<CR><LF>

2. Speed vectors directions (For/Aft, Port/Starboard) are displayed by arrows indicators; no sign is presented in the digital value.

3. Diagnostic information
3.1 If IR861 does not receive any signal from the external source for more than 3 seconds Error ("Err") message is indicated on the LEDs. This may happen, for example if external talker is not connected or connection polarity is not correct.
3.2 If input messages do not contain sentences, required for indication of selected data, "_" (underline symbol) is indicated on the corresponding LEDs. As an example: if there is no VLW message available on the input, IR861 will indicate "_____" instead if distance counter
3.3 If fields in the received message is empty (not valid data), dots are indicated on the corresponding LEDs. As an example, if speeds over ground fields are empty in VTG or VBW sentences and BT mode is selected on IR861, "..." will be indicated instead of speed value.

Environmental according to IEC60945

Supply voltage:	24V DC (10-32V)
Power consumption:	3W at 24V
Operating temperature:	-15- +55 degree C according to IEC60945

To increase serviceability and life-time, we suggest the working temperature to be held at 0- +40 degrees C.

Storage temperature:	-20 - +70 degree C
Humidity:	10 - 90% relative, no condensation.
Waterproof:	IP56

SERVICE

Adjustments and repairs should only be performed by qualified service engineers, and unqualified repair attempts will void the warranty.

INSTALLATION

The unit can be mounted in panel, table, wall or ceiling.
1. For tabletop mounting, wall or ceiling mounting use the supplied bracket.
2. For panel (flush) mounting, take off the bracket and take off the front frame.
   Cut a 125x125mm Din size square window in the panel, fix the inside 4 holes with tapping screws, and put on the front frame again.