



## UNIVERSAL COURSE RECORDER & TAPE HEADING REPEATER

The KW991-CR is both course recorder and multi-function display. It offers a user selectable moving tape heading, numeric heading display and numeric heading plus GPS data. It accepts gyro and GPS data and is compatible with most proprietary gyro and standard GPS equipment.

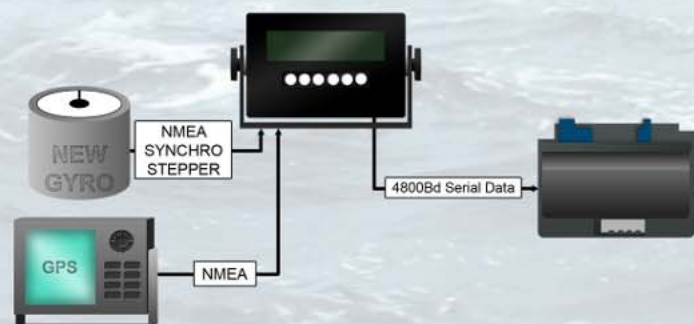


The universal course recorder with printer can be used as a direct replacement for the old electro-mechanical course recorders.

Gyro and GPS data is output at selective intervals and can be sent for archiving to a PC and also to the optional dot matrix KW991-PRN printer.

The unit is compatible with most proprietary gyro signals and standard GPS equipment.

Screen selection, illumination and control are via a tactile six-button keypad.



## SPECIFICATIONS

**INPUT 1:** DC and rectified unsmoothed DC stepper, 4 to 90v. 360:1  
Synchro up to 115v/90v. 50/60 400/500 Hz.  
90X 400 Hz contactless transmitter. Tracking rate =  
Frequency / 3deg/sec. (DC step 333 deg/sec)  
NMEA 0183 input, so both input channels are NMEA.  
Input 1 must be \$HEHDT,x.x,T

**INPUT 2:** NMEA 0183, GPS data or GPS and heading data.  
These sentences provide the data required. \$GPRMC or \$GPGGA + \$GPVTG + \$GPZDA.

**OUTPUT 1:** 4800 baud. 8 bits. No parity. 1 stop bit. RS422 and RS232 compatible.

**OUTPUT 2:** 3 x 5v CMOS ports to sink or source 5 mA.  
5 volt low power alarm output as default.

**DISPLAY:** 166 x 41 mm viewing area. Variable brightness, keypad control.

**SCREENS:** Presentation screens:  
Tape; width +/- 15 degrees and +/- 12.5 degrees.  
Tape traverse rate 20 deg/second independent of input.  
Digital Heading and GPS.  
Large digital 41 mm high.

**POWER:** 24 volts at 12 watts. Switch on surge 2 amps.

**ENCLOSURE:** Diecast enclosure IP55 rating 260 x 160 x 90 mm  
Supplied with trunnion. Optional flush mount.



### KW991-PRN PRINTER

80 columns, 4800 baud Serial Port, for fanfold or paper roll.  
Supplied as 220/240 VAC only.  
Set printer for International English font, and Auto-LF.  
Supplied as an optional extra.