UNIVERSAL COURSE ECORDER
KW991CR

INTRODUCTION

The instrument is a low cost replacement for "course recorders."
It connects directly to the gyro and GPS equipment.

Compass and GPS data is shown on the display. The KW991CR is programmed to output a single line of data at selective intervals. The data is fed to a standard low cost printer, or to a PC for recording on disk. The interval between outputs are:-

a)   Output every 6 minutes. (0, 6, 12 etc. 1/10th hour.)
        Paper usage on passage would be typically 4 pages per day.
b)   Output if course changes by 2 degrees from the last output. This occurs no faster than at a 10-second interval. Paper usage during manoeuvring would be typically 3 pages per hour.
c)   Output on demand by pressing the keypad Wheel button.

The KW991CR is not just a course recorder! The screen presentation of a moving tape allows the instrument to be used for as a Heading Repeater. Screen selection is by a tactile six –button keypad.

SPECIFICATION

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/3 deg/sec. (DC step 333 deg/sec)
Option: M-type resolved to 1/3 deg. OR 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.
Example: time, position, course, speed and course over ground, date.

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12:30:00   51 30.521N 003 23.456 W  009 deg 12.0 sog 012 cog 25:12:99
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OUTPUT 2:   3 x 5v CMOS ports to sink or source 5 mA.
Alarm output as default. Fit a 5 volt low power audible alarm or relay for high power alarm.

SCREENS: Presentation screens, Tape; width +/- 15 degrees and +/- 12.5 degrees.
Tape traverse rate 20 deg/second independent of input tracking rate.
Large digital 41 mm high.
Digital with analogue ROT information.

POWER: 10 to 35 volts at 12 watts. Switch on surge 2 amps.

HOUSING: . Black diecast box 260 x 160 x 90 IP55 with trunnion or flush mount.

PRINTER: 80 columns, 4800 baud, for fanfold or paper roll. These are normally AC operated.
Set printer for International English font, and Auto-LF. Printer may be PRN001 could be supplied by AMI preprogrammed to work with KW991CR, or customer supply.