



# STEPPER RETRANSMISSION UNIT. KW941-D.

## INTRODUCTION

The interface converts serial heading data into traditional step transmission, or acts as a stepper amplifier.

Using the KW941 allows a new heading sensor such as a gyro, magnetic compass or satellite heading sensor to connect to existing bridge repeaters or existing radars and navigational aids. The KW941 is useful in both retrofit and new installations, and ideal with the KW940 pick off coil system, making a transmitting magnetic compass.

NMEA 0183, Furuno AD10 heading data, or 6-steps per degree may be input. The step voltage output suits the 4 popular voltages. The interface has 6 stepper output channels, contained in a bulkhead mounted electrical enclosure.

## SPECIFICATION

**STEPPER INPUT:** 6 steps per degree. 3 to 70 V DC + or – common.  
Three input resistors are fitted on site to suit the input voltage

**DATA INPUT:** NMEA 0183. \$HEHDT, \$GPHDT and all valid heading sentences.  
Or Furuno AD10 format serial data and clock. (DIP switch selectable)

**OUTPUT:** Stepper, 6 steps per degree. 6 output ports.  
Output voltage nominal 24v, 35v, 50v, 70v, DC. (1A per port)  
Negative step voltage, positive common. The model KW941-BP outputs either polarity.

A transformer is fitted to suit the output voltage required. (2 standard transformers)  
a) 24v or 50v or b) 35v or 70v.

The output voltage varies with the load, it is not a regulated supply.  
Rotation or follow up 12 or 24 degrees per second. (May be altered by DIP switch)  
With step input the step output is the same, except that false states are removed.

**NMEA 0183 OUTPUT:** \$HEHDT output, following the NMEA 0183 or Furuno input only.

**OUTPUT:** Alarm relay. Contact held open when OK. 1 Amp DIL relay.

**CONNECTORS:** Lift off terminal blocks. Power is orange snap-in connector.

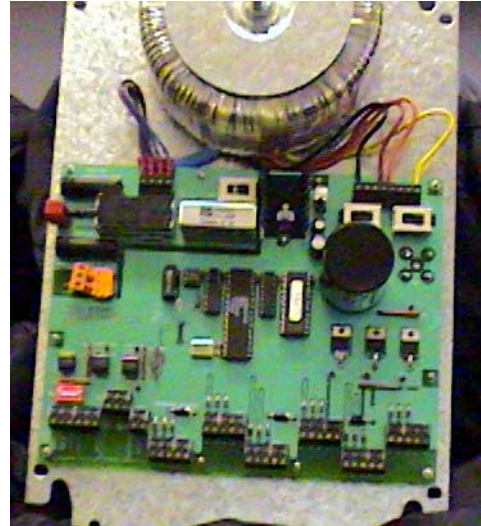
**POWER:** Nominal 115 volts or 230 volts 50/60 Hz double fused, switched and filtered.

**ENCLOSURE:** 400 x 300 x 150 grey electrical enclosure with door.

**FEATURES:** LEDs on all inputs and outputs. Simple design. Watchdog restart circuit.

**CHANGES:** The KW941-D is updated from the "C" model because of customer requests to cater for both positive and negative stepper input polarities with a very wide range of voltage, ranging from "TTL" to 70 volts. The step input resistors are selected to allow 2.5 to 10 mA per step. 3K3 resistors are supplied with the KW941-C for a 10 to 30 volt input range.

**LAST UPDATE:** 17/03/2005 by Andrew Fairgrieve



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