



# 48 STEP PER DEGREE RETRANSMISSION UNIT KW948

## INTRODUCTION

The KW948 may be used in a refit when a new gyro replaces the old one, which had 48 step per degree repeaters.

This includes certain C Plath, Anschutz, and other gyros. The repeaters are those that use a 24 volt DC motor supply, with standard industrial stepper motors having two isolated windings.

New gyro compasses are normally supplied with a 24 volt supply so they keep operating if power is lost. The KW948 uses the same DC source, so it too can keep operating. If the new gyro supply does not have enough power it obviously needs an additional power source.



Typical repeaters take no more than 0.8 amps per step, but the power required is less than expected from a simple ohms law calculation. The KW948 outputs the full voltage to rotate the repeaters, then when in position it gives a rectangular pulse train to hold position at a low current.

## SPECIFICATION

**INPUT:** NMEA 0183. All valid heading sentences. 4800 baud.  
One or more decimal places are accepted.

**OUTPUT:** 6 pin lift-off connector block. 24 volts DC for illumination.  
Drive for 2 pole stepper motors, with two separate windings.  
Maximum current 6 Amps total, hold current approximately 0.5 amps.  
A version for 96 steps per degree is available.

Rotation (follow-up) rate. 5 or 10 degrees per second. Adjustable by jumper.  
With two decimal places the motors are rotated in a smoother way than with one decimal place.

**ALARM RELAY:** Low power single pole change over relay to switch an independent external audible and visual alarm, which is not supplied.

**POWER:** 24 volts DC at 0.2 to 6 Amps depending on load. Resettable fuse.

**CONNECTIONS:** Pluggable terminal blocks.

**ENCLOSURE:** 25 cm wide x 35 cm high x 15 cm deep  
Grey electrical enclosure with door, for bulkhead mounting.

**EPROM CHANGE:** The EPROM is encapsulated to prevent copying.



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