



SYNCHRO RETRANSMISSION UNIT

The X903-X interface converts serial heading data from a modern gyro to a medium power synchro signal with ratios from 1:1 to 360:1. Applications include refitting a ship with a new gyro, while retaining the existing repeaters. The majority of commercial gyro synchro systems are 360:1 or 1 revolution per degree; these are catered for by the X903-P high power model. Heading Input is from an NMEA 0183 source, which most modern gyros give as standard.

SYNCHRO OUTPUT

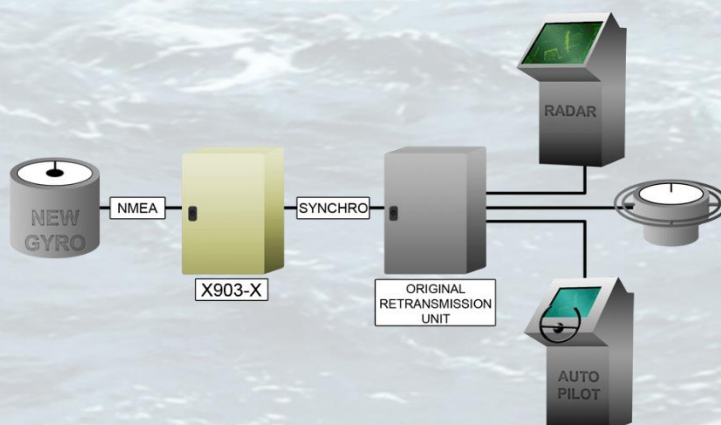
The X903-X generates an adjustable synchro voltage of maximum 54 volts, ideal for Anschutz repeaters (20/24v) and several other manufacturers using nominal 50 volts.

The X903-X provides a smooth rotation, and it interpolates the rotation to 2 decimal places of a degree. A smooth synchro rotation will be achieved from gyros that output heading to more than one decimal place of a degree.

If the gyro or interface can only provide heading output to 0.1 or 1/6th of a degree the rotation will move in steps of 0.1 or 1/6th of a degree. The SX software controls the rotation speed to reduce any oscillation on the synchro receiver.

SAFETY FEATURES

The X903-X will detect a failure of the NMEA input signal, and overload of the synchro output.



SPECIFICATIONS

INPUT: NMEA 0183 heading, magnetic or gyro or Cetrek data.

OUTPUT: Reference output nominal 55v or 110v 50/60 Hz at 1 Amp. Switch selectable.
Synchro output adjustable 0 to 45 volts max at 20VA per phase. (60VA max.)
Use additional transformer adapter for higher voltages.
Synchro output protected against overload.
Synchro frequency is normally 50/60Hz. Synchro precision 360 values per revolution at most ratios.
That is 1 degree resolution at 1:1. 1/36th degree at 36:1 etc.
Precision 0.05 degree at 180:1. 0.01 degree at 360:1

ALARM RELAY: Pulses when the X903 detects gyro fault.

CONTROLS: Rotation rate and test select rotary switch.

POWER: Nominal 110/220v 50/60Hz at 600VA.
Fused, switched and filtered.
Earth is essential.

ENCLOSURE: 400 x 500 x 160mm 16kg
Electrical cabinet with door for indoor bulkhead mounting.
It should be fitted in a well-ventilated location.
Not suitable for external use

APPROVALS: IEC60945