

Cygnus Instruments

MKII Ultrasonic Hatch Leak Detector - Cygnus Hatch Sure



Receiver

Transmitter

KEY FEATURES

- Inspections can be carried out with cargo in place
- Allows a rapid and thorough test of hatch cover tightness
- Lightweight 3.8 kg (8 lbs) - suitable to be hand-carried onto aircraft
- Digital calibration controls
- Open Hatch (OH) value and sound level in Decibels (dB) are simultaneously displayed
- Powerful and robust transmitter
- Easy transportation in a rucksack-style carry case
- Receiver supplied with neck and waist straps for hands-free use
- The transmitter has 6 selectable pre-set power levels enabling the unit to be used in confined spaces
- Transmitter is fitted with shoulder strap for convenience and safety
- Environmentally friendly - can be used in place of hose testing
- 3 year warranty.

APPROVALS

ABS type approved and accepted by P&I clubs.

APPLICATIONS

- Test the weather tightness of cargo hatch covers or doors
- Test seals in cargo access areas, such as bow, side and stern doors or any opening that needs to be sealed
- Sealing integrity checks on large yachts
- For testing watertight doors
- For use in confined spaces.

TECHNOLOGY

Sea water ingress is one of the major sources of damage to cargo resulting in expensive insurance claims. Cygnus Hatch Sure provides a quick and effective method of evaluating hatch seals.

The system consists of a battery powered transmitter containing 19 ultrasound emitters (40 kHz). The emitters are arranged to produce an omni-directional sound field, uniformly distributed throughout the cargo hold.

The receiver part of the system displays the sound energy level that passes through gaps in the enclosed cargo hold to enable the location of leaks to be quickly and accurately identified.

KIT CONTENTS

Hatch Sure receiver with protective case; 2 rechargeable batteries for the receiver; neck and waist strap for the receiver; telescopic extension and cable; 2 flexible inspection microphones; protective foam cover for inspection microphone; headphone 2-into-1 splitter cable; neck-band headphones; Hatch Sure transmitter with protective case; shoulder strap for the transmitter; 2 sets of 6 rechargeable batteries for the transmitter; fast charger for the rechargeable batteries; external DC power lead for the transmitter; emergency microphone cable; rucksack style carry case; operation manual.



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SPECIFICATION

Cygnus Hatch Sure Receiver	
Size	110 x 185 x 45 mm (4.3 x 7.3 x 1.8 inch)
Weight	500 g (17 oz) (inc. batteries)
Power	9v PP3 battery - 2 x MaxE Rechargeable batteries supplied
Battery Life	4 - 5 hours continuous with MaxE rechargeable batteries 8-9 hours with Alkaline batteries
Protection	IP65 (IP66 in soft-pouch)
Frequency	40.000 KHz, +/- 200 Hz Bandwidth
Enclosure	ABS plastic with orange shock-absorbing outer boot Outdoor all weather soft-pouch with mounted belt strap
Temperature Range	Operating: -20°C to 50°C (-4°F to 122°F) Storage: -10°C to 60°C (14°F to 140°F)
Warranty	3 years
Cygnus Hatch Sure Transmitter	
Size	120 x 150 x 90 mm (4.7 x 5.9 x 3.5 inch)
Weight	680 g (24 oz) (inc. batteries)
Power	12 x rechargeable MaxE 2100 mAh supplied with kit (alternatively 6 x AA batteries) External 12-24 v DC power input socket (1 amp)
Battery Life	4.5 hours with 2100 mAh MaxE batteries
Battery Charger	A 6 cell charger is supplied 100 - 240 v AC 50-60 Hz supply Charge time is approx. 3 hours
Protection	IP40 in soft-pouch with transmitter elements exposed (normal use) IP42 in soft-pouch with cover flat secured (storage)
Transmitter Frequency	40.000 KHz, +/- 80 Hz Bandwidth Frequency modulated
Transmitter Elements	19 x 16 mm (0.63 inch) diameter 40 KHz ultrasound transmitters
Max. Power	130 dB (SPL)
Transmitter Output	6 selectable pre-set power levels - full power 5 selectable lower outputs in 11dB steps
Enclosure	ABS plastic Padded soft-pouch with protective weather cover and 4 points for attaching rope for lowering into holds
Temperature Range	Operating: -20°C to 50°C (-4°F to 122°F) Storage: -10°C to 60°C (14°F to 140°F)
Compliance	CE, BS EN 60945:2002 (Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results)
Environment	RoHS, WEE compliant
Warranty	3 years
Cygnus Hatch Sure Inspection Microphone	
Size	240 x 12 x 15 mm (9.4 x 0.47 x 0.6 inch) (with rubber sleeve fitted)
Warranty	6 months
Cygnus Hatch Sure Telescopic Extension	
Size	Extended length: 1.215 m (4 ft) Collapsed length: 0.4 m (16 inch)
Weight	300 g (10 oz)
Warranty	6 months