



# Cygnus Hatch Sure



## Ultrasonic Hatch Leak Detector

A lightweight ultrasonic system for testing the weather tightness of cargo hatch covers

Distributed by NDT Equipment Services Ltd



## Features

- Lightweight (3.8 kg) - 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 & waist straps for hands-free use
- Transmitter fitted with shoulder strap for convenience and safety
- Inspections can be carried out with cargo in place
- Allows a rapid & thorough test of hatch cover tightness
- Environmentally friendly - can be used in place of hose testing
- 3 year warranty

## Approval

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

## 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
- 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
- Operation manual



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## Technical Specifications

### Hatch Sure Receiver

<b>Size</b>	110 mm x 185 mm x 45 mm (4.4" x 7.3" x 1.8") W x H x D
<b>Weight</b>	500 g (17 oz) including batteries
<b>Power</b>	9v PP3 battery - 2 x MaxE Rechargeable batteries supplied
<b>Battery Life</b>	4 - 5 hrs continuous with MaxE rechargeable battery 8 - 9 hrs continuous with Alkaline battery
<b>Protection</b>	IP65 (IP66 in soft-pouch)
<b>Frequency</b>	40.000 kHz, +/- 200 Hz Bandwidth
<b>Enclosure</b>	ABS plastic with orange shock- absorbing outer boot. Outdoor all weather soft-pouch with waist mounted belt strap.
<b>Temperature Range</b>	Operating - 10 C to + 50 C Storage - 10 C to + 60 C
<b>Warranty</b>	3 Years

### Hatch Sure Inspection Microphone

<b>Size</b>	Length 240 mm (9.4 inch) Diameter 15 mm (0.6 inch)
<b>Warranty</b>	1 Year



Inspection Microphone mounted  
on Telescopic Extension

### Hatch Sure Telescopic Extension

<b>Size</b>	Extended length 1.215 m (4 foot) Collapsed length 0.4 m (16 inch)
<b>Weight</b>	300 g (10 oz)
<b>Warranty</b>	1 Year

### Hatch Sure Transmitter

<b>Size</b>	120 mm x 150 mm x 90 mm (4.7" x 5.9" x 3.5") W x H x D
<b>Weight</b>	680 g (24 oz) including batteries
<b>Power</b>	6 x Rechargeable NiMH 2100 mAh supplied with kit (Alternatively 6 x AA Batteries) External 12-24 v DC power input socket (1 amp)
<b>Battery Life</b>	4.5 hrs with 2100 mAh NiMH batteries
<b>Battery Charger</b>	A four cell AA fast-charger is supplied 100 to 240 v AC 50-60 Hz Supply Charge time is approx. 1 hour
<b>Protection</b>	IP40 in soft-pouch with transmitter elements exposed (normal use) IP42 in soft-pouch with cover flat secured (storage)
<b>Transmitter Frequency</b>	40.000 kHz, +/-80 Hz Bandwidth Frequency Modulated
<b>Transmitter Elements</b>	19 x 16 mm diameter 40 kHz ultrasound transmitters
<b>Transmitter Power</b>	130 dB (SPL) min
<b>Enclosure</b>	ABS plastic Padded soft - pouch with protective weather cover and 4 points for attaching rope for lowering into holds
<b>Temperature Range</b>	Operating - 10 C to + 50 C Storage - 10 C to + 60 C
<b>Warranty</b>	3 Years

Compliance - CE, BS EN 60945:2002  
(Maritime navigation and radiocommunication equipment and systems  
- General requirements - Methods of testing and required test results)

Environmental - RoHS, WEEE compliant

Specifications are subject to change for product improvements

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**Cygnus Thickness Gauges**



**General Purpose    Hands Free    ROV Mountable**



**Datalogger    Intrinsically Safe    Underwater**

For Cygnus thickness gauges, please visit [www.cygnus-instruments.com](http://www.cygnus-instruments.com)

**Distributed by NDT Equipment Services Ltd**  
**11 Vaux Road, Finedon Road. Ind. Est.**  
**Wellingborough, Northants. NN8 4TG**  
**Tel: +44 (0) 1933 274833**  
**Fax: +44 (0) 1933 274113**  
**Email: [saleshire@ndt-es.co.uk](mailto:saleshire@ndt-es.co.uk)**



Cygnus Instruments Ltd  
 Cygnus House  
 30 Prince of Wales Road  
 Dorchester DT1 1PW  
 United Kingdom

T: +44 (0)1305 265533  
 F: +44 (0)1305 269960  
 E: [sales@cygnus-instruments.com](mailto:sales@cygnus-instruments.com)  
[www.cygnus-instruments.com](http://www.cygnus-instruments.com)