

# ULTRASONIC WATERTIGHT INTEGRITY TESTER

**PORTASCANNER® WATERTIGHT**

TECHNICAL BROCHURE



# Introducing Portascanner® WATERTIGHT

World-leading fully ABS Type Approved & RINA Accepted Portascanner® WATERTIGHT is a powerful portable ultrasonic watertight Integrity indicator for testing watertight and weathertight seals.



**CUSTOMER TESTIMONIAL**  
*"The fleet was equipped with a unit per Bulk Carrier and the units are and working well, providing the confidence that there will be no problems with water damage claims."*

- **Type** – Ultrasonic Watertight Integrity Tester
- **Function** – To test the integrity of sealed compartments; watertight/weathertight doors, hatch-covers and multiple cable transits with decibel and linear readings
- **Part Number** – 509004-0311
- **NSN** – 6625-99-257-8336
- **IMPA** – 652778



# Portascanner is ideal for you



Shipping/Marine



Defence/Naval



Oil and Gas



Hatch-covers



Weathertight and  
Watertight Doors



Multiple Cable Transits

## FASTER BETTER CHEAPER

### ACCURATE

Most mathematically advanced unit in the world, pinpoints leaks to 0.06mm (+/- 0.02mm)

### EASY TO USE

Suitable for any operator with free training; no need for time consuming, expensive courses

### POWERFUL & MULTI-USE

Applications range from hatch-covers, doors and MCTs, readings in decibel and linear





# Advantages compared to other methods

## PRECISE

Detect leaks as small as 0.06mm

## GREEN TECHNOLOGY

A clean method of testing that does not violate any environmental codes, unlike hose testing

## APPROVED

Full ABS Type Approved & RINA Class Accepted



## RESULT OUTPUTS

Readings provided in dB for regulation compliance or mathematical linear for ease of use

## Safety at Sea

AWARDS 2019



## AWARD FINALIST

IHS Markit Safety Product of the Year nominated.

# Advantages of the Standard Generator

Choose the most powerful and compact unit on the market, supplied as standard. Suitable for cargo holds of 10,000m<sup>3</sup> to 12,000m<sup>3</sup>, watertight doors and MCT's.



## SAFER WITH MAGNETS

Generator is fitted with magnets to attach to hatch-coaming. No need for user to go down to base of cargo hold. No need to lower the generator into the cargo hold saving time.



## LIGHTWEIGHT

Handheld and portable. Generator is less than 500 grams.



## SIMPLE

Easy to use by all: chief engineers, marine surveyors and crew alike



## BATTERY

12 hours continuous battery life



# Regulation Compliance

There are multiple regulations pertaining to watertight/weathertight integrity inspections which is made easier with Portascanner:

## **SOLAS Reg II-1/11.1**

It states that hatches and watertight seals must be regularly tested: *"Where a hose test is not practicable [sic] it may be replaced by [sic] an ultrasonic leak test or an equivalent test. In any case a thorough inspection of the watertight bulkheads shall be carried out."*

## **IMO SOLAS Reg II-1/21.3**

Periodical Operation and Inspection of Watertight Doors, etc., in Passenger Ships

*"The watertight doors and all mechanisms and indicators connected therewith[sic] shall be periodically inspected at sea at least once a week."*

## **IMO SOLAS Reg II-1/13-1.1**

Openings in Watertight Bulkheads and Internal Decks in Cargo Ships

*"Where penetrations of watertight bulkheads and internal decks are necessary for access, piping, ventilation, electrical cables, etc., arrangements are to be made to maintain the watertight integrity."*

## **IACS Rules - Requirements for Ultrasonic Watertight Integrity Service Providers**

Information about what the servicing provider requires to conduct testing.

*"2. Firms engaged in tightness testing of closing appliances such as hatches, doors etc. with ultrasonic equipment."*



# How it works

1. Connect Rod and Headphones to Receiver. Switch Generator "on" and place into the compartment to be tested. Obtain OHV (for hatch cover).
2. Close compartment. Point the sensor to the area of interest.
3. Move sensor around the seal. Where signal is strongest, that is your leak site.



## Training

Available in Operating Instructions, by phone, email and YouTube

Channel: Coltraco Ultrasonics: [www.youtube.com/watch?v=Emta7952Z00](https://www.youtube.com/watch?v=Emta7952Z00)

Figure 1. Watertight Compartment

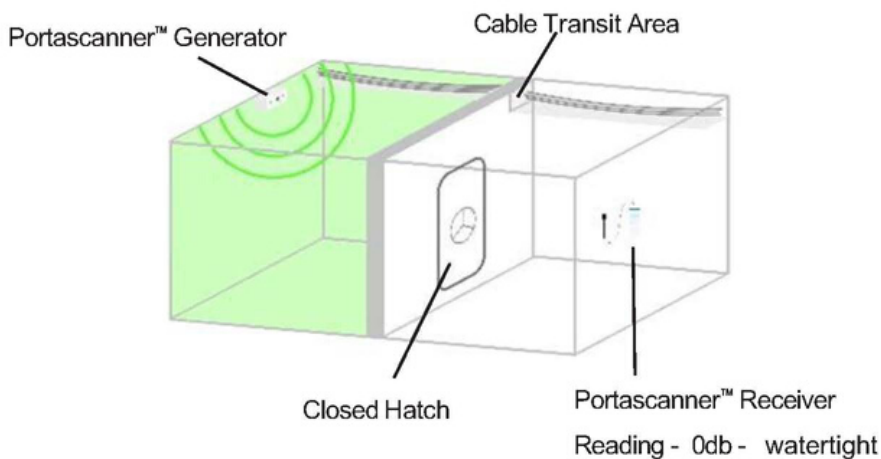
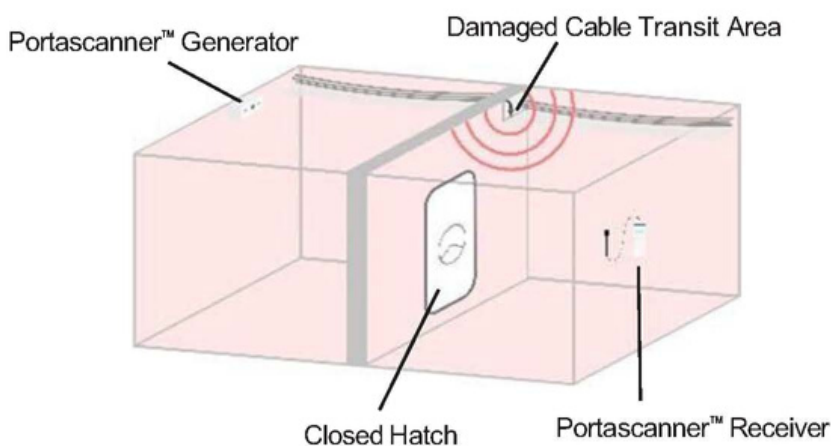


Figure 2. Non-compliant Compartment



## RESULTS

### OPTION 1: decibel (dB)

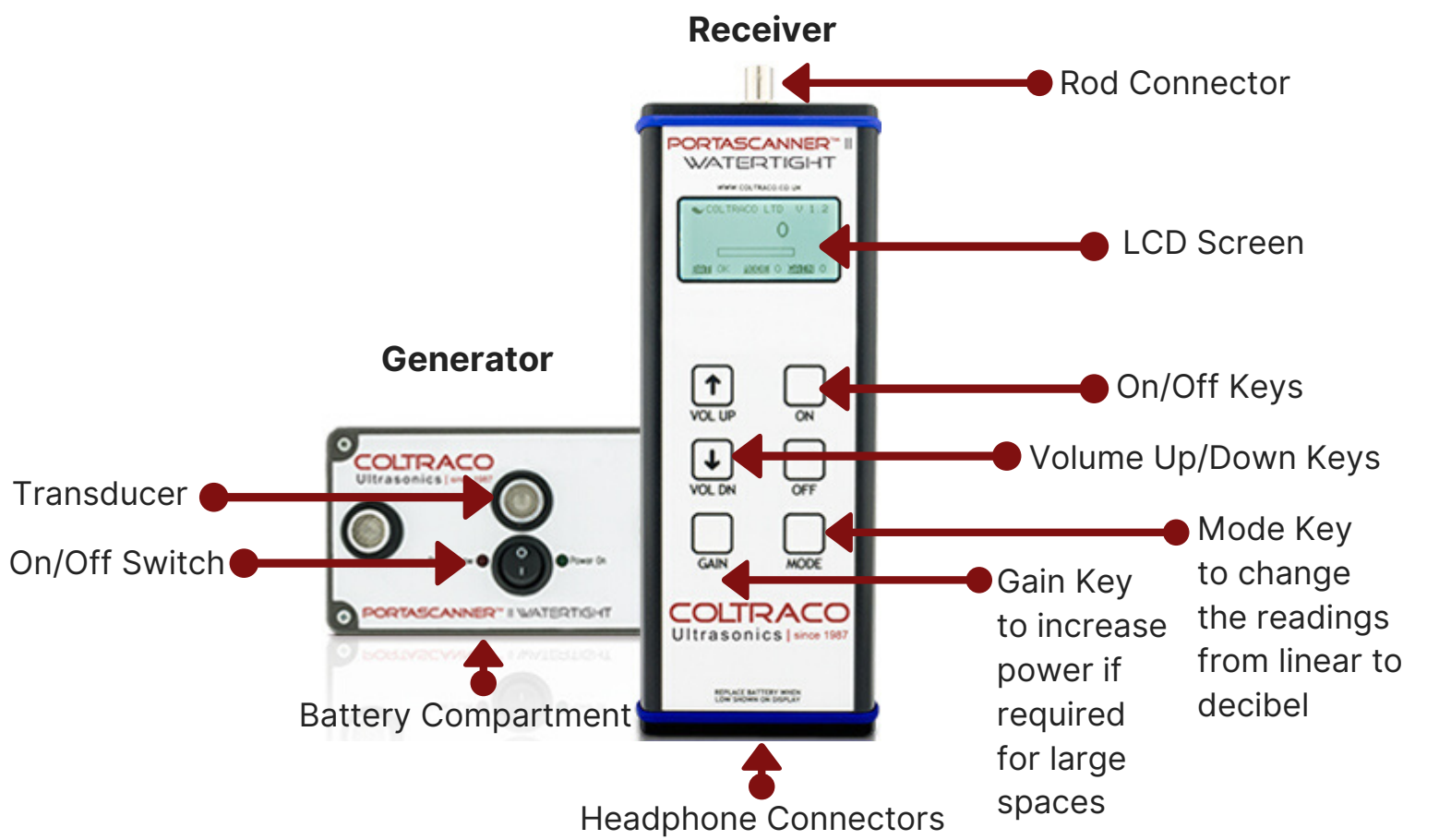
- 0 dB = watertight seal
- 1 dB - 26 dB = weathertight seal
- 27+ dB = weak seal compression
- high values = full leak site

### OPTION 2: Linear/ numerical

- 0 - 5 = watertight seal
- 6 - 100 = weathertight seal
- 101+ = weak seal compression
- For hatch cover: above 10% OHV = leak site
- high values = full leak site



# Package



# Technical Specifications



## Portascanner® Receiver

Output	Visual (via LCD display and graph) and audible signal (via calibrated headphones)
Size	21.5cm L x 8.5cm W x 3.5cm H
Weight	419 Grams
Indication	Results shown in Decibel and Linear
Battery Life	12 hours continuous use minimum
Enclosure	Aluminium IP65 Waterproof
Powered By	1 x 9V PP3 batteries with low battery indication



## Portascanner® Generator (standard)

Output	3 multidirectional transducers (40kHz)
Mounting Arrangements	Permanent Magnet
Size	15cm L x 9cm W x 5cm H
Weight	431 Grams
Powered By	2 x 9V PP3 Batteries
Enclosure	ABS Plastic Material
Battery Life	12 hours continuous use



# Optional Bulk Generator

## PORTASCANNER® SONIC POWER

To inspect watertight and weathertight integrity of hatchcovers for the largest vessel hold sizes.

16+

*sensors for full coverage*

>12,000 m<sup>3</sup>

*extra large holds*

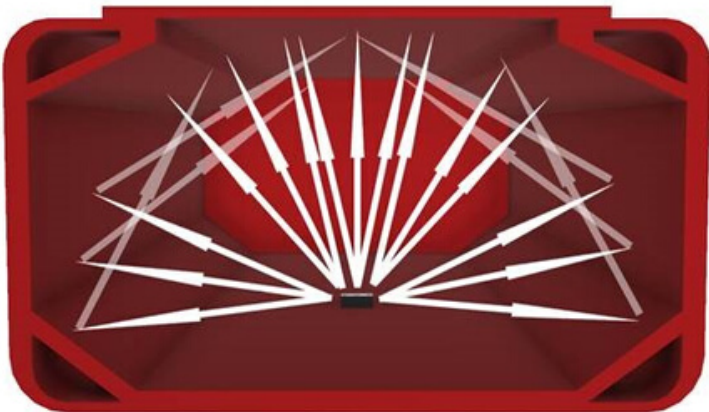


### How It Works

Turn on and either place on the base of the hold centre or use in-built magnets to attach to hatch coaming. Then begin testing as usual with the Portascanner®.

### Technical Specifications

Batteries	12 x 1.5V C-cells (included)
Size	25cm x 25cm x 8cm
Weight	2kg approx.
Output	16 multidirectional transducers



# Customer Care Commitment

**Through-life Support** for life time of the equipment via telephone/email.

**Local Support** in our ODA service centres strategically placed globally to support you.

**Warranty:** 3 year for main unit; 1 year for sensor.

**Guaranteed:** against defects in materials & workmanship. See terms and conditions for details.

Since 1987 Coltraco Ultrasonics have been designing and manufacturing ultrasonic instrumentation for safety and servicing.

All our products undergo rigorous quality testing to ensure they meet the high standards expected by our customers to provide long term reliability.



## Customer Reviews

Owners, managers, marine surveyors, third party servicing companies, oil and gas installations and other mariners have pledged their support for 3 reasons: faster, better, cheaper than any competitor.

### OIL & GAS EXPLORATION & PRODUCTION GLOBAL

"PM testing of WT doors is on a 3 month basis using Portascanner. I also test all WT doors at rig`s Marine Integrity Inspection using the Portascanner and I still consider it **invaluable**." "I am doing Watertight Integrity on all Rigs within the Division of India and the Middle east. **Great bit of Kit.**"

### MARINE SURVEYOR CAPTAIN HOLMES, BOTRANS, UKRAINE, 2017

"Our PORTASCANNER WATERTIGHT unit **performed well** during the entire period of use, proved **rugged** and we feel sure that if it had not required returning for mandatory calibration and certification, the unit would have performed well for many more years to come."

### MARINE SERVICING COMPANY TECHSOL MARINE, CANADA, 2017

"We did some transit inspection work on one of our customers vessel using the Portascanner & we are **very pleased** with your instrument. We are looking forward extending our service offer using it."

### SHIP MANAGEMENT COMPANY GLOBAL

"The fleet was equipped with a unit per Bulk Carrier and the units are and **working well**, providing the **confidence** that there will be no problems with water damage claims."

## TALK TO OUR EXPERTS:



Call +44 207 629 8475



Email [sales@coltraco.co.uk](mailto:sales@coltraco.co.uk)



Discover [www.coltraco.com](http://www.coltraco.com)

PROUD TO SUPPORT

**GREAT**

BRITAIN & NORTHERN IRELAND



MADE IN THE UK BY COLTRACO ULTRASONICS  
46 MOUNT STREET, MAYFAIR, LONDON, W1K 2SA, UK  
[WWW.COLTRACO.COM/PORTASCANNER-WATERTIGHT](http://WWW.COLTRACO.COM/PORTASCANNER-WATERTIGHT)

Coltraco®, Coltraco North America®, Portamarine®, Portalevel®, Permalevel®, Portagauge®, Portasonic®, Portamonitor™, Portasteele™, Portascanner®, Permascanner®, Safesite™, Safesite™ are trademarks or registered trademarks of Coltraco Limited, UK. DuPont™, FM-200®, FE-25™, FE-13™, and FE-241™ are trademarks or registered trademarks of E.I. du Pont de Nemours and Company and its affiliates. Novec™ 1230 is a trademark owned by 3M.