



## SDT 8 Ultrasonic Multi Transmitter

### ***General Description and Applications:***



SDT manufactures two Ultrasonic Transmitters for verifying tightness integrity (wind noise, water leaks, weather tightness etc...) of any volume; The SDT 200mW and the SDT 8 Multi Transmitter. The SDT 8 Multi Transmitter (pictured left) is for use in large volumes such as cargo ships, submarines and other navy vessels with watertight doors, buses, trains, airplanes, passenger vehicles etc...

Ultrasonic transmitters generate dual high frequency signals. These signals are small and therefore able to pass through very small leaks. When the transmitter is placed inside a volume (cargo hold for instance) the entire volume is flooded with dual ultrasonic waves. Use an SDT ultrasonic detector outside the volume to find and pinpoint the exact point of leakage.

### ***Testing Cargo Ship Hatch Covers:***

SDT Ultrasonic Testing is Type Approved worldwide by major shipping classification societies such as ABS – American Bureau of Shipping, Lloyds Register, and DNV. P&I Clubs around the world recognize SDT ultrasonic hatch cover inspection as a major contributor to the reduction of insurance claims from water damaged cargo. Use the SDT 08 Multi Transmitter with the SDT Sherlog Detector for Type Approved inspection and data collection of hatch cover weather tightness.

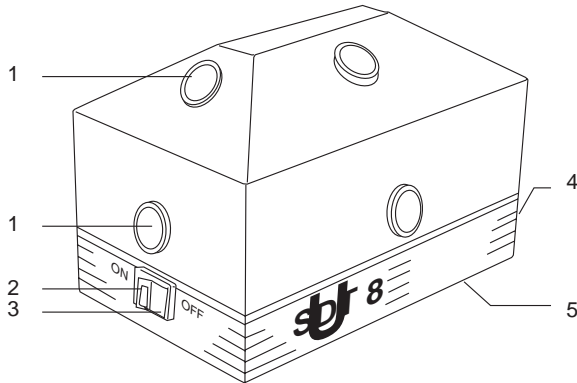
### ***Testing Automobiles on the Assembly Line:***

SDT Ultrasonic is widely used by major manufacturers such as Ford, Daimler Chrysler, Toyota, Mitsubishi, Hyundai, General Motors, Bombardier, and others. The elimination of water shower booths on assembly lines is the primary motivation for integrating ultrasonic tightness testing into the quality control applications for wind noise and water leaks.

The principles are the same for automobiles and hatch covers.



The SDT 8 transmitter is equipped with a lead-acid battery and weighs approximately 2 lbs. The equipment can be used in temperatures ranging from  $-25^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ .



### 1. The ultrasonic sensors

Eight sensors are laid out in the equipment such that they transmit in the volume of a hemisphere.

Each ultrasonic sensor is frequency and power stabilised. The transmission frequency is 39.2 and 39.6 kHz (bi-sonic mode) at a power of 125 mW.

### 2. Indicator

A red indicator integrated in the ON - OFF switch shows whether the equipment is switched on and the charge level of the battery according to the following code:

Indicator	Equipment
<b>On</b>	- Equipment switched on. - Battery charge correct.
<b>Flashing</b>	- Equipment switched on. - Battery charge incorrect. The speed of the flashing increases as the charge decreases.
<b>Off</b>	- Equipment switched off or - With switch in on position indicates an insufficient charge.

### 3. The ON-OFF Switch

Located at the base, this switch enables the equipment to be switched on (ON position) or off (OFF position).

### 4. The Charge Plug

Marked LOAD (charged), it enables the internal lead battery to be recharged without taking the equipment apart. Overcharging is not possible if the charger delivered with the equipment is used.

### 5. The Battery

Lead-acid type and sealed, the battery is accessible after the lower protection lid has been removed. The rated voltage is 12V and its capacity is 1.2 Ah at 20 C; the autonomy is 2.5 hours for a 6 hour charge.



## Technical Data

### Transmission Characteristics

<b>Function:</b>	Ultrasonic Transmitter
<b>Frequencies:</b>	Stabilized at 39.2 and 39.6 kHz (bi-sonic mode)
<b>Number of transducers:</b>	8
<b>Transmission power:</b>	Stabilized at 8 x 125 mW
<b>Dispersion:</b>	8 x 60°

### Supply

<b>Voltage/capacity:</b>	12V DC/1,2 Ah
<b>Battery:</b>	Gelled lead-acid rechargeable
<b>Recharge:</b>	By means of an external charger and integrated connector (without removing the battery) or by using a charge adapter (removing the battery).
<b>Autonomy:</b>	2.5 hours at 20 °C
<b>Charging time:</b>	6 hours
<b>Safety:</b>	Chemical control fuse with automatic reset.

### On/Off switch

<b>Command:</b>	By ON/OFF switch
<b>Visual indication:</b>	ON/OFF/battery charge control indicator. Flashes when undercharged.

### Others

<b>Temperature range:</b>	-4°F to 122°F (-20° C to +50° C)
<b>Hygrometry range:</b>	0 to 95 % RH non condensing
<b>Dimensions:</b>	Length: 6.3" x Width: 3.9" x Height: 3.75"
<b>Weight:</b>	3.3 lbs

### Order Number FS8US or FS8MSUS contains:

<b>FUSUIT8</b>	Plastic case (blue) SDT8 + foam
<b>FU8S or FU8MS</b>	SDT 8 Standard or Multi Setting with battery and user manual
<b>FUPS8US/EU/AS</b>	Battery charger for SDT 8 (US=110VAC, EU=240VAC Europe, AS=240VAC Asiatic)
<b>FUBATAD8</b>	Battery charger adapter SDT 8
<b>FUBAT8</b>	Battery pack SDT 8
<b>FUHOLSLEATH8S</b>	Leather case for SDT 8 with shoulder trap
<b>FUTOSCRDRIV</b>	Screw driver for battery cover