

# DNG 2300

## 3-channel white noise generator

### DNG-2300 protects from:

- Laser and microwave surveillance systems using reflections from windows
- Electronic stethoscopes (contact microphones)
- Microphones built in the walls or other constructions
- Other vibro-acoustic methods of information leakage

The DNG-2300 generator has been created to protect against listening devices which cannot be discovered by common methods. The unit protects a room by inducing non-filterable noise onto surfaces. This noise, also known as 'white' noise, is transmitted onto surfaces with the help of the TRN-2000 transducers and OMS-2000 speakers in the unit. The number of transducers and speakers is dependent on the room's configuration.

Thanks to the TRN-2000's transducers the protection level of the generator is higher than systems which only have speakers. The transducers pass most of the generated noise into the desired construction in the form of vibration while producing less audible interference. Although a slight noise may be heard inside the protected area there will be no need to raise your voice.

### How the eavesdropping works

Vibration-acoustic leakage is possible thanks to the ability of sound waves to penetrate walls, windows and other constructions. In some materials sound travels even better than in air. For example, water is a great conductor of sound and a heating system can be easily used for picking-up peoples' speech. This principal is used in electronic stethoscopes. They pick up vibrations caused by conversations on walls, windows and other constructions and transform them back into sound. These eavesdropping devices can be installed, not only in the adjacent premises, but even over a number of floors or rooms which are somehow connected to the target area - by mutual cavity or construction.



### Principal of protection

The DNG-2300 can 'block' the above methods. This is carried out with the help of special transducers. It is recommended to use the REI's TRN-2000. Their parameters are optimal for many kinds of surfaces. The TRN-2000 are very efficient which means that only an insignificant part of the produced noise will be let into the air, while most of it will be 'injected' into the construction in the form of vibration. With the help of the bracket the transducers can be mounted onto practically all kinds of surfaces.

The OMS-2000 omni-masking speakers can also be used with the DNG-2300. Their purpose is to produce non-filterable noise in spaces like ventilation shafts, behind ceiling tiles, etc.

### Transducers and accessories for DNG-2300

#### TRN-2000 Transducer



Designed for the protection of walls, windows, ceilings, floors and pipes. One transducer protects a section of about 3x3 meters of a wall, one Window pane or a pipe of water supply or heating system. Quantity in other cases may vary.

#### OMS-2000 Omni-masking speaker



Designed to produce non-filterable noise in spaces like ventilation shafts, behind ceiling tiles, etc. Can also be used to create interference for voice recorders and other bugging devices within the room.

### Specification

Digital noise generator DNG-2300	
Dimensions	6.0 x 17.5 x 25.4 cm
Weight	2.2 kg
	Transducer channels
Max. output power	2 x 10 W
Frequency response	250-5000 Hz
Min. impedance of load	3 Ohm
	Acoustic channel
Max. output power	1 x 8 W
Min. impedance of load	8 Ohm
Frequency response	250-6500 Hz
Power	220V 50 Hz
Transducer TRN-2000	
Dimensions	37.6 x 3.1 cm
Weight	454 g
Impedance	6 Ohm
Omni-masking speaker OMS-2000	
Dimensions	12.7 x 14.6 cm
Weight	907 g
Impedance	24 Ohm
Test microphone DNG-MIC	
Output level	1 V
Weight	110 g