URRS - 12T
Ultrasonic Rodent Repellent System

C SYSTEMS®
Innovative Embedology

C Systems Ultrasonic Rodent System Model-URRS-12T consists of one main console, 12 transducers & a cable bundle of 0.25 Sq.mm 2 core cable. The main console is a microcontroller based system with embedded power electronic circuits to generate a pattern of ultrasound waves at 800mW power output per transducer. All parameters such us start frequency, end frequency, sweep time, wave pattern etc are pre programmed in the system. The sound waves are at high frequency (well about 20HKz which is not hearable to human ear) The transducers emit intensive sound at high decibels (that are audible and painful to pests but inaudible and harmless to humans. The rodents usually leave the area being protected by ultrasound. They do not get killed. The panel is equipped with Rs485 port and all the parameters such as start, end, current frequency, sweep time & delay, Mode etc can be monitored via any 3rd party BMS through MODBUS RTU protocol.

SYSTEM OPERATION

On power up, the main console starts generating ultrasound with factory settings. Each transducer can cover an area of upto 300 Sq.ft at 3 m height ideally. Practically, each transducer can cover 150sq.ft even in sound absorbing environment. All the transducers can be installed in the above false ceiling & below false flooring in server rooms / data centers etc. The panel has the advantage of integration with any BMS through traditional MODBUS RTU protocol. The parameters such as start, End frequency, Sweep time, sweep delay and frequency can be monitored from BMS through Rs485 port.

HOW DOES THE URRS-12T WORKS

The powerful sound waves generated by the Transducers are within the hearing range of many pests and rodents and cause them pain and discomfort. Many times, the rodents will leave the area under ultrasound protected immediately and other times it will take as long as four to eight weeks before there is a significant reduction in infestation. The transducers are quiet. To test the operation of transducers, select "Test Transducer" in the menu.

CABLES

Two core (14/40) SWG cables of 90 meters for connecting the transducers with the panel.

Panel Specification

Configuration   : URRS - 12T Main Console
Operating frequency   : Above 20KHz (Variable)
Frequency Generation   : Voltage controlled oscillator (VCO)
Transducer Test   : "Test Transducer" Menu selection
Ventilation   : Mini Exhaust Fan
Power O/P Transducer   : 800mW
Integration with BMS   : MODBUS RTU via Rs485
Power Consumption   : 15W approx
Power Supply   : 230V AC / 50 Hz
Dimensions in mm   : 290 x 210 x 100
Weight   : 6 Kg
Mounting   : Wall Mounting
Certifications   : CE
                         (EN IEC 61010-1:2010 + A1:2019)
                         (EN ISO 12100:2010) Applicable Standards

MODBUS parameters

Start Frequency
End Frequency
Current Frequency
Sweep Time
Sweep Delay
Ultrasonic Mode