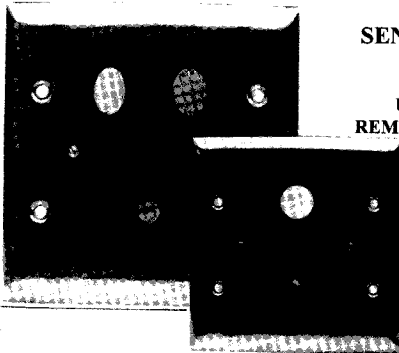


# SENTRY PRODUCTS, INC.

## DURESS SYSTEM ULTRASONIC RECEIVER REMOTELY ACTIVATED SWITCH

### WX-200/220

- WEATHER RESIST
- DUAL FREQUENCY
- DRY CONTACT CLOSURE



### GENERAL DESCRIPTION

The WX-200/220 Weather Resist Dual Frequency Ultrasonic Duress Receiver is the second generation of the WX-100. The WX-200 receives and processes the two frequencies transmitted by the LC-110 or LC-210 transmitters (a 43 KHz carrier and a low frequency sub-carrier) to detect an alarm signal. The timing of pulses generated by the sub-carrier must be exact to generate a Dual Frequency alarm. This greatly reduces the chances of an alarm from an environmental noise source. Except for the dual frequency signal processing, the WX-200 is otherwise very similar to an WR-100 receiver. The WX-200 receiver has a stainless steel face plate and fits into a standard 4-square outdoor E.O. Box. An amber lamp (or optional Red LED) indicates an alarm condition. In normal daylight, the lamp is visible in all directions for a distance of 50 feet.

### OPERATION

The receiver is activated with the use of either an LC-110 or LC-210 transmitter. The receiver converts the ultrasonic signal and the low frequency sub-carrier into an electrical signal and conditions the signal for reliable transmission to a control module.

When an alarm signal is received from a Sentry/SCAN transmitter, the receiver activates a normally open or normally closed dry contact reed relay. The receiver and relay can be programmed to be either momentarily on or latched "on". Also, the receiver can latch "on" and the relay can be momentary. If the receiver is latched "on", reset is accomplished by the momentary interruption of power. Contacts are available on a detachable screw terminal block to allow interfacing with any SCAN zone control module or third party data

gathering panel (DGP). The dry contact allows for control of CCTV, Strobe Light activation or for operating any other signaling or data logging equipment.

### COVERAGE

The range for reliable reception of the signal from an LC-110 or LC-210 electronic transmitter is equal to or less than 50 feet along an axis normal to the receiver's front surface. For response to off-axis signals refer to Fig 1.

### ELECTRICAL

The WX-200 may be ordered for 12 volt or 24 VDC operation for convenient system integration. The output is a pair of reed relay contacts. Either normally open or normally closed relays can be supplied. Please indicate preference. Unless otherwise specified, normally open contacts will be supplied. The dry contacts are rated at 10 VA at 0.5 ampere maximum. The WX-200 interface connector can be strapped to several different configurations at the factory. All connections are by a removable 8 position screw clamp terminal block, which will accept wires from #14 AWG to #22 AWG.

### INSTALLATION

The WX-200 receiver may be flush or surface mounted. The receiver circuitry is pre-mounted on a stainless steel, two-gang, specially punched faceplate. The receiver will fit a 2-gang box of not less than 1 3/4 inch depth (minimum). When used with a plaster ring, the ring must be a Bowers 404 series or equal. When the 2-gang box is one of several in a series, a deeper box must be used to permit room for conduit and other conductors.

## ADJUSTMENTS

Receivers are factory-calibrated to receive a signal from a range of 50 feet. A sensitivity adjustment is available if required. Adjustments should be done as follows: 1) From the furthest location (line of sight) at which the receiver should detect the transmitter, face the transmitter toward XR-200 and pull the pin, if the lamp comes on no adjustment is required, replace the pin and proceed to next device. 2) if receiver does not activate refer to **SENSITIVITY** section of this data sheet.

## SENSITIVITY

Only one adjustment is available to the installer. A small square potentiometer on the printed circuit board is positioned for adjustment without disassembly of the receiver. The sensitivity (range)



may be increased by adjusting the potentiometer clockwise. No other adjustments should ever be done in the field.

## MECHANICAL

The receiver faceplate is brushed stainless steel with perforations. The receiver assembly mounts flush in a standard 2-gang E.O. box. The only protrusion is the lamp which does not exceed two-tenths (0.2) of an inch from the surface.

## MAINTENANCE

Normally, no maintenance is required. In the event of failure, please consult the factory.

## POWER REQUIREMENTS

12 VDC Standard  
24 VDC Special Order  
15 Milliampers Nominal  
100 Milliampers in alarm

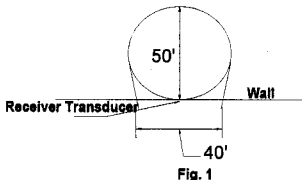
## OPTIONAL EQUIPMENT

For physical security, a wire mesh receiver guard model RVG-2, may be used with the XR-200.

## ENGINEERING SPECIFICATION

The receiver shall activate and generate an alarm upon receiving the properly modulated ultrasonic carrier frequency.

The receiver shall have a stainless steel faceplate with an indicator lamp and mount in a two-gang E.O. box. The receiver range shall be 50 feet on axis and 22 feet at 70 degrees off-axis (see Fig. 1). The receiver shall operate on 12 (24) VDC. A set of reed relay normally open (closed) contacts will be available. Connections shall be by a removable terminal block.



## ORDERING INFORMATION

XR - 200 - [ ] - [ ]

Single Head = 0	↑	↑	L = Relay and Receiver Latching
Dual Head = 2	↑	↑	M = Relay Momentary Recvr., Latching
Quad Head = 4	↑	↑	A = Relay and Receiver Momentary
No Relay, 12 V Lamp = 0	↑	↑	S = Reset Switch on Faceplate
12 V Relay, 12 V Lamp = 1	↑	↑	
24 V Relay, 24 V Lamp = 2	↑	↑	A = Normally Open Relay
12 V Relay, 24 V Lamp = 3	↑	↑	B = Normally Closed Relay

NOTE: Weather resistant receivers are not available in the quad-head configuration or with a reset switch on the faceplate.