

The Annunciator System shall operate on the Verified Intrusion principle. [Each] [The] In/Outdoor Sensor Transmitter (Model TD-10) shall operate using wireless Passive Infrared (PIR) and wireless transmission.

OUTPUT AND ENCLOSURE

[Each] [The] Single Relay Receiver (Model RG-10) and Chime Box w/ Relay (Model RC-10) shall provide the detection, signal processing, alarm relay, and operating power circuitry in the same enclosure; and shall provide an alarm relay actuation upon the detection of an intruder moving into or through its protection pattern.

[Each] [The] Single Relay Receiver (Model RG-10), Chime Box w/ Relay (Model RC-10), and Hand-Held Transmitter (Model TS-10) shall be installed indoors. [Each] [The] In/Outdoor Sensor Transmitter (Model TD-10) shall be installed either indoors or outdoors without modification, and shall have an IP rating of 54. The special design of these sensors shall enable them to be mounted easily on walls, ceilings, fence posts, desktops, and other similar surface areas without modification.

The total weight of model RC-10 shall be 6.0 oz (170g). The total weight of model RG-10 shall be 4.2 oz (120g). The total weight of model TD-10 shall be 6.3 oz (180g). The total weight of model TS-10 shall be 1.4 oz (40g).

[Each] [The] Single Relay Receiver (Model RG-10) and Chime Box w/ Relay (Model RC-10) shall feature a single piece electronic logic board whose circuitry is specifically designed for this detector alone,

and which has sustained a substantial "Burn-in" test for several days. The board shall be mounted to a housing with the cover being secured with a screw.

[Each] [The] Single Relay Receiver (Model RG-10) and Chime Box w/ Relay (Model RC-10) shall include 1 Mounting Screw, and [each] [the] model RC-10 shall also include 1 AC adaptor. Model RG-10 shall include 1 Mounting Screw. [Each] [The] In/Outdoor Sensor Transmitter (Model TD-10) shall include 2 Mounting Screws. [Each] [The] Hand-Held Transmitter (Model TS-10) shall include 1 Belt clip.

LED OPERATION

[Each] [The] In/Outdoor Sensor Transmitter (Model TD-10) and Hand-Held Transmitter (Model TS-10) shall incorporate a single, Red LED to indicate the operating conditions. Red LED illuminated shall indicate an alarm condition. Red LED not illuminated shall indicate a non-alarm condition.

[Each] [The] Single Relay Receiver (Model RG-10) and Chime Box w/ Relay (Model RC-10) shall incorporate 3 RED LEDs to indicate operating conditions, and a single Green LED to indicate power conditions. Red LEDs illuminated shall indicate an alarm condition. Red LEDs not illuminated shall indicate a non-alarm condition. Green LED illuminated shall indicate the power is turned on. Green Led not illuminated shall indicate the power is turned off.

On all models, the LEDs shall also indicate a low battery condition. Model RC-10 shall also indicate a low battery condition by tone.

POWER REQUIREMENT

The power source and current draw shall vary with the detector. [Each] [The] Model RC-10 shall be capable of operating from a DC power source rated to 9V, shall include an exclusive AC adaptor, and shall draw a nominal 2W when the unit in operation mode, and 1W when in standby mode. [Each] [The] Model RG-10 shall be capable of operating from an AC/DC power source rated within the range of 12-24 volts AC/DC, and shall draw 80mA when in operation mode, and 30mA when in standby mode. [Each] [The] Model TD-10 shall be capable of operating from an alkaline battery, rated at 9 volts. The battery life shall be approx. 2 years (250/day at 70°F (20°C)). [Each] [The] Model TS-10 shall be capable of operating from 2, size AA alkaline batteries, rated at 3 volts. The battery life shall be approx. 2 years (100/day at 70°F (20°C)).

ALARM OPERATION

For [each] [the] Single Relay Receiver (Model RG-10) and Chime Box w/ Relay (Model RC-10), a condition of alarm shall occur when the alarm conditions are met. The Sensitivity shall be 3°F (1.6°C) at 2ft/sec. (0.6m/sec). The Detectable Speed shall be 1 ~ 3 ft/sec. (0.3 ~ 1m/sec.). The Alarm Period shall be 2.0 ± 1 seconds. [Each] [The] detector shall signal the condition of alarm using a Reed Relay with terminal strip connections. [Each] [The] Single Relay Receiver (Model RG-10) and Chime Box w/ Relay (Model RC-10) shall contain 2 relay outputs: 50 volts AC 1A max, or 24 volts DC 1 A max. The output timer for Model RC-10 shall feature 6 levels of adjustment within a finite range: off/1/5/30/60sec/utility output mode. The output timer for model RG-10 shall feature 4 levels of adjustment within a finite range: 1/5/30/60 sec.

[Each] [The] model RC-10 shall also feature an optional Chime tone with 3 tones and 1 alarm. The Volume shall be contains five adjustable levels within the range of 0 ~ 80dB.

To accomplish PIR detection, [each] [the] In/Outdoor Sensor Transmitter (Model TD-10) shall contain a sealed Pyro-Electric sensor peaked for the detection of near-infrared energy in the 10 micron region.

SENSOR STABILITY

While all wireless transmitters have 'dead spots' within their transmission range, the newly developed non-directional antenna of model TD-10 shall greatly reduce these 'dead spots' to make installation easier and increase reliability. This optimal antenna design and fine RF tuning shall achieve a high signal to noise rate, ensuring long range and consistent operation. The maximum transmission range for model TD-10 shall be 1000ft (line of sight), and the maximum transmission range for model TS-10 shall be 700ft (line of sight). The radio frequency for all models shall be 418MHz.

To eliminate the possibility of RF interference or cross talk, the wireless transmission codes shall be preset at the factory with over 8 million possibilities.

[Each] [The] device shall be rated to maintain maximum detection sensibility even in high temperature conditions. The operating range shall be [15° Fahrenheit to 104° Fahrenheit] [minus 10° Celsius to plus 40° Celsius]. [Each] [The] detector shall also tolerate a humidity rate of 95% max. No false alarm shall occur within these operating conditions.

LENS AND DETECTION PATTERN

[Each] [The] TD10 Wireless Transmitter shall contain a durable and high grade UV resistant Fresnel lens that shall focus received infrared energy onto the sensors. [Each] [The] wireless PIR transmitter (Model TD-10) shall feature a two detection patterns: 50ft (15m) long range, or 17ft (5m) fan pattern. The transmission angle shall be adjustable to 90° vertically & -5° horizontally,

or -5° vertically & 90° horizontally. The hand-held transmitter (Model TS-10) shall feature a push-button detection method with wireless transmission.

MODEL

The Intrusion Detector shall be model RC-10 (Chime Box w/ Relay), [or] [model RG-10 (Single Relay Receiver)], [or] [model TD-10 (Indoor/Outdoor Sensor Transmitter)], [or] [model TS-10 (Hand-Held Transmitter)].