

1. INTRODUCTION

The K-980MCW is a pet-immune, fully supervised ultra low-current wireless PIR that incorporates a PowerCode transmitter. Both transmitter and detector circuits are powered by an on-board, long life 3.6 V Lithium battery.

As a pet immune motion detector, the K-980MCW utilizes TSI™ (Target Specific Imaging) technology that ensures immunity to pets weighing up to 36 kg (80 lb).

As a supervised wireless detector, the K-980MCW has a 24-bit ID code, randomly selected in the factory from over 16 million possible combinations. Compatible PowerCode receivers are designed to "learn" specific IDs and respond only to them.

Following detection of a human intruder, the K-980MCW triggers the on-board transmitter which transmits its specific PowerCode ID followed by an alarm signal and status designators for tampering and battery condition. Alarm and other data are thus forwarded to the alarm control panel or to a head-end computer, depending on the type of system in which the detector is used.

After triggering the transmitter, the K-980MCW inhibits itself to save battery power. The detector reverts to the ready state 2 minutes after the last movement has been detected. An LED/WALK-TEST jumper is used to override the 2-minute rearm timer during walk testing.

Since messages transmitted by the K-980MCW might collide with those transmitted by other PowerCode transmitters, an anti-collision transmission sequence is used.

A programmable pulse counter is included in the unit for maximum immunity against false alarms.

A periodic test transmission for supervision purposes takes place automatically once an hour. The receiver is thus informed that the particular detector is taking an active part in the wireless network.

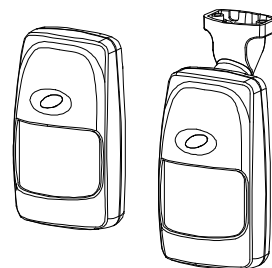


Figure 1. General View

2. SPECIFICATIONS

OPTICAL

Max. Coverage Range: 12 x 12 m (40 x 40 ft) / 90°

Pet Immunity: Animals up to 36 kg (80 lb) - **not verified by UL.**

Vertical Adjustment: 3-position adjustment scale: 1.8 m (6 ft), 2.1 m (7 ft) and 2.4 m (8 ft).

ELECTRICAL

Battery Type: 3.6 Volt lithium thionyl chloride (LiSOCl₂) battery, size 1/2AA, Tadiran TL-2150

Nominal Battery Capacity: 1 Ah

Standby Current Drain: 0.015 mA

Transmit Current Drain: 12 mA (including LED)

Battery Life Expectancy (not verified by UL): 3 years (for typical use).

LED: Lights for 2 seconds upon transmission and upon motion detection in the walk test mode.

Detector: Dual-element low-noise pyroelectric sensor.

Pulse Counter: Programmable to 1, 3 or 5 pulses.

Inhibit Time: 2 minutes after last alarm (none during walk test)

Antenna: A piece of wire AWG 24, 15 cm long inside the casing is used as an antenna.

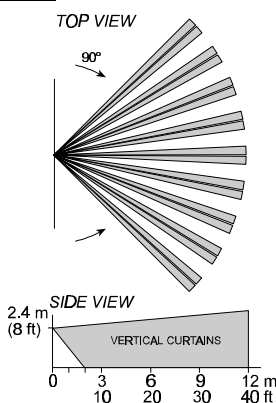


Figure 2. Coverage Pattern

WIRELESS

Frequency (MHz): 315, 433.92, 868.95, 869.2625 according to local requirements. **UL has only investigated at 315 MHz.**

Transmission Sequence: 3 data bursts at variable intervals within 3 seconds.

Encoding: 24-bit ID, over 16 million possible combinations.

Total Message Length: 36 bits

Battery Supervision: Automatic reporting of low-battery status with each alarm and with periodic autotest.

Tamper Alert: Reported at 3-minute intervals

ENVIRONMENTAL

Operating Temperature: -10° to 49°C (14° to 120°F).

Storage Temperature: -20° to 60°C (-4°F to 140°F).

RFI Protection: > 30 V/m up to 1000 MHz

Compliance with Standards: Meets FCC Part 15, MPT1349 and Directive 1999/5/EC.

This device complies with the essential requirements and provisions of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio and telecommunications terminal equipment.

PHYSICAL

Size (H x W x D): 117 x 65 x 47 mm (4-5/8 x 2-9/16 x 1-7/8 in.).

Weight: 97 g (3.4 oz) without bracket. 112 g (4 oz) with bracket.

Color: White.

A 10 s plot, showing that transmitter stops transmitting in less than 5 s :

