

NEXT DUO K9-85

Pet-Immune, Dual Technology, Digital Intrusion Detector



Visonic

Installation Instructions

1. INTRODUCTION

The NEXT DUO K9-85 is a pet-immune digital, microprocessor-controlled MW / PIR detector that can be adapted to the size of the protected area by use of a **model selector**. A different digital signal processing (DSP) is used upon selection of each model, thus optimizing both PIR and MW performance within the protected area.

Specific Imaging™ (TSI) technology is employed for distinction between human beings and pets, and achieves uniform detection sensitivity up to 12 meters. Advanced **True Motion Recognition™** algorithm (patented) allows the NEXT DUO K9-85 to distinguish between the true motion of an intruder and any other disturbances which cause false alarms.

A Test input permits switching the detector to the walk test mode remotely without removing the front cover. An on-board motion

event jumper determines whether 1 or 2 consecutive motion events would trigger an alarm.

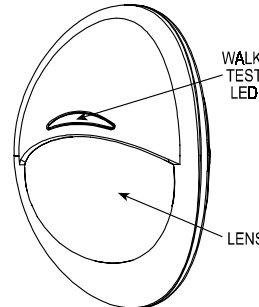


Figure 1. General View

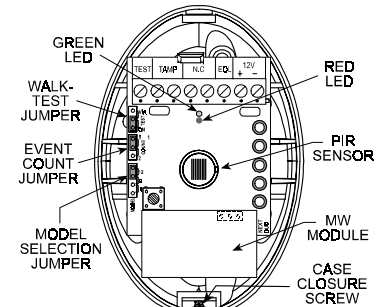


Figure 2. Inside View

2. SPECIFICATIONS

Selectable Models: Models covering 6, 9 and 12 meters (20, 30 and 40 ft), selected upon installation

Input Voltage: 9 to 16 VDC

Current Drain: About 20 mA @ 12 VDC

PIR SECTION (see Figure 3)

Lens Data

No. of Curtain Beams: 9

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

Tripping Indication: Indicator lights ORANGE for about 3 sec.

MW SECTION

Oscillator Type: Microstrip, DRO-stabilized

Frequency: 2.45 GHz

Detection Range: Up to 12 m

Tripping Indication: Indicator lights GREEN for about 3 sec.

ALARM and TAMPER

Alarm Output: Solid-state relay, N.C., up to 100 mA / 30 V, ~30 Ω internal resistance. Circuit opens for 3-5 seconds upon alarm.

Alarm Indication: Indicator lights RED for about 3-5 seconds.

Event Counter: Selectable, 1 or 2 motion events

Tamper Contacts: Normally closed, 50 mA resistive / 30 VDC

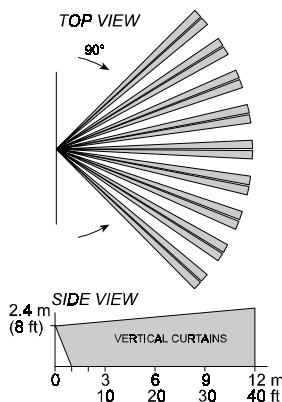


Figure 3. Maximum Coverage Pattern

MOUNTING

Surface or corner, at the height of 1.8 to 2.4 m (6 to 8 ft)

Note: Base allows single-sided corner mount at 45° to wall.

ACCESSORIES:

BR-1: Surface mounted swivel bracket, adjustable 30° down and 45° left/45° right.

BR-2: BR-1 with a corner adapter

BR-3: BR-1 with a ceiling adapter

ENVIRONMENTAL

Operating Temperature: -10°C to 50°C (14°F to 122°F)

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

RFI Protection: Greater than 20 V/m (20 MHz to 1000 MHz)

PHYSICAL

Size (H x W x D): 94.5 x 63.5 x 49.0 mm (3-11/16 x 2-1/2 x 1-15/16")

Weight: Approximately 63s g (2-1/5 oz)

PATENTS: U.S. Patents 5,693,943 • 6,211,522 • D445,709 (another patent pending)

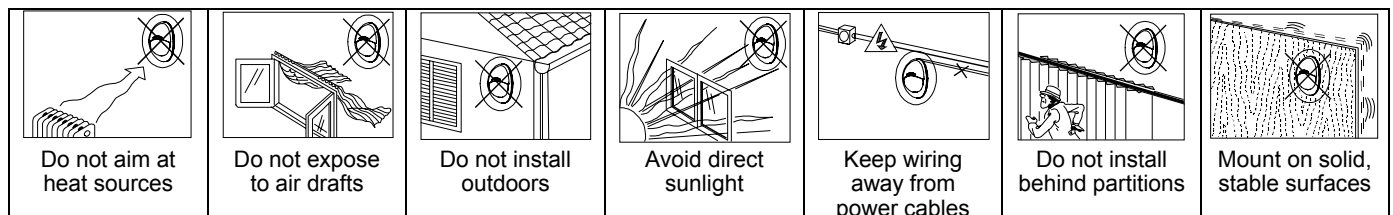
This device complies with the essential requirements and provisions of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio and telecommunications terminal equipment.

2.45 GHz has no restriction in any EU member state.

The term "IC" before the certification number **IC: 1467A - NEXTDUO** (that is printed on the detector) signifies that the Industry Canada technical specifications were met.

3. INSTALLATION

3.1 General Guidelines





Important! The detector is immune to 38 kg (85 lb) animals moving on the floor or climbing on furniture as long as the activity takes place below 1 m (3 ft). Above the 1 m (3 ft) height limit, the detector is immune to 19 kg (42 lb) pets, but the pet immunity will decrease as the pet gets closer to the detector. It is therefore recommended to select a mounting location that minimizes potential close proximity of animals.



Correct use of the optional brackets:
With pets: In pet immune applications, optional brackets should be used for horizontal alignment only - the detector should remain vertical (perpendicular to the ground).
Without pets: To obtain the best possible coverage where no pets are present, use a bracket and tilt the detector 20° down.

- A. Microwave radiation passes through glass and non-metallic walls. Be sure, therefore, to select the correct model in accordance with the room size. This is important to minimize the effect of movements occurring beyond room limits which might cause the MW section to trip.
- B. Large reflecting objects (especially metals) in the coverage area can distort the microwave detector's coverage pattern.

- C. If two NEXT DUO K9-85 units are installed in the same room or on opposite sides of a shared wall, they should not face each other and must be mounted at least 20 cm (0.6 ft) apart.
Attention! At power up, the detector undergoes a 60-second stabilization period, indicated by alternate flashing of the red and green LEDs.

3.2 Illustrated Installation Procedure

1 Disassemble unit

C SHIFT COVER UP TO FREE TOP TOOTH AND REMOVE COVER

B PULL OUT LOWER EDGE OF COVER

E REMOVE BOARD

D FLEX CATCH OUT

A LOOSEN SCREW

2 Open holes in base

B USE A LARGE DIAMETER DRILL BIT TO DE-BURR THE OTHER SIDE

A USE A SCREWDRIVER TO PIERCE SURFACE OR CORNER KNOCKOUTS, AS REQUIRED.

3 Mount base

1.8-2.4m (6-8ft) above ground. For range above 10m (30ft) recommended height is up to 2.1m (7ft)

A MARK THE DRILLING POINTS AND DRILL IN THE WALL

B ROUTE THE WIRES INTO THE BASE VIA THE REAR CHANNEL

C INSERT TWO DOWELS AND ATTACH THE BASE TO THE WALL WITH TWO SCREWS

D INSERT THE BOTTOM EDGE OF THE LARGE P.C. BOARD UNDER THIS TAB & PRESS THE TOP EDGE IN.

4 Set jumpers as needed

WALK-TEST REMOTE CONTROLLED VIA TST INPUT:
TST Input grounded: walk-test active
TST Input "floating" or "+12V": walk-test disabled

WALK-TEST ENABLED

1 EVENT - FAST RESPONSE

2 EVENTS - HIGHEST FALSE ALARM PROTECTION

MODEL:
 12 m (40 ft)
 9 m (30 ft)
 6 m (20 ft)

5 Wire up the terminal block

ALARM CONTROL PANEL

24-HOUR TAMPER ZONE

BURGLAR ZONE

12 VDC OUT

TEST SWITCH (OPTION)

10-100 kΩ

+12V

NEXT DUO K9-85 TERMINAL BLOCK

TEST

TAMP

N.C

EOL

12V + -

BURGLAR ZONE

EOL RESISTOR

N.C

EOL

USING AN E.O.L. RESISTOR WHEN THE CONTROL PANEL IS SET FOR E.O.L. OPERATION

6 Walk-test the coverage area

A MOUNT THE COVER, CLOSE IT AND TIGHTEN THE SCREW.

B WALK ACROSS FAR END OF COVERAGE PATTERN IN BOTH DIRECTIONS. THE INDICATOR SHOULD LIGHT RED FOR 2-3 SECONDS EACH TIME YOUR MOTION IS DETECTED.

C **IMPORTANT!** INSTRUCT THE USER TO WALK-TEST AT LEAST ONCE A WEEK TO ASSURE PROPER FUNCTION OF EACH DETECTOR.

4. SPECIAL COMMENTS

Even the most sophisticated detectors can sometimes be defeated or may fail to warn due to: DC power failure / improper connection, malicious masking of the lens, tampering with the optical system, decreased sensitivity in ambient temperatures near that of the human body and unexpected failure of a component part.

The above list includes the most common reasons for failure to detect intrusion, but is by no means comprehensive. It is therefore recommended that the detector and the entire alarm system be checked weekly, to ensure proper performance.

An alarm system should not be regarded as a substitute for insurance. Home and property owners or renters should be prudent enough to continue insuring their lives and property, even though they are protected by an alarm system.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one that supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

WARNING! Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WARRANTY

Visonic Ltd. and/or its subsidiaries and its affiliates ("the Manufacturer") warrants its products hereinafter referred to as "the Product" or "Products" to be in conformance with its own plans and specifications and to be free of defects in materials and workmanship under normal use and service for a period of twelve months from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or replace the product or any part thereof. The Manufacturer shall not be responsible for dismantling and/or reinstallation charges. To exercise the warranty the product must be returned to the Manufacturer freight prepaid and insured.

This warranty does not apply in the following cases: improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than the Manufacturer.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express or implied, including any warranty of merchantability or fitness for a particular purpose, or otherwise. In no case shall the Manufacturer be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties whatsoever, as aforesaid.

This warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Products.

The Manufacturer does not represent that its Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection. User understands that a properly installed and maintained alarm may only reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no death, personal damage and/or damage to property as a result.

The Manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property or other loss whether direct, indirect, incidental, consequential or otherwise, based on a claim that the Product failed to function. However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the Manufacturer's maximum liability shall not in any case exceed the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the Manufacturer.

Warning: The user should follow the installation and operation instructions and among other things test the Product and the whole system at least once a week. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his /her safety and the protection of his/her property.

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