Wireless
Shock & Contact Detector

Model: DSK743 / DSK786

Installation Instructions

Fig. 1

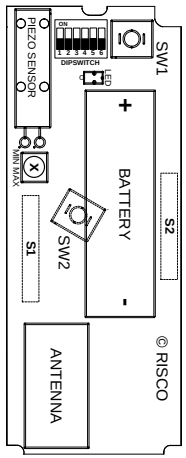

Fig. 2

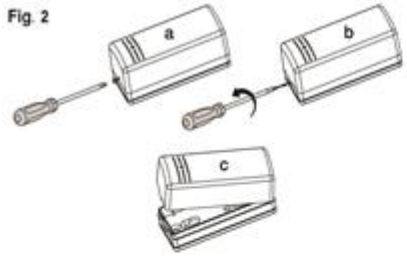

Fig. 3

Fig. 4

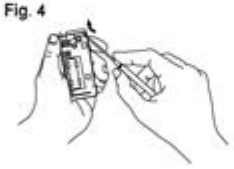

Fig. 5

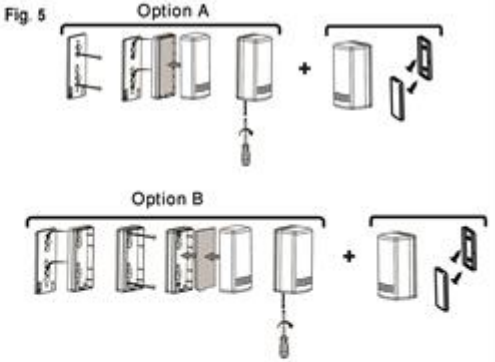

Fig. 6

GENERAL DESCRIPTION

The DSK743 / DSK786 combines both a Shock detector and a Door/Window Contact detector in a single casing for internal use that provides reliable 24-hour perimeter protection.
The detector employs an advanced digital microprocessor to analyze the vibration signal received from the piezo electric sensor.
The DSK has a reed switch for protection against opening doors and windows, and against any attempt to tamper the detector using large magnets.
This detector operates in conjunction with PIMA's programmable receivers in the FORCE and VISION Alarm Systems and is powered by a standard 3-volt lithium battery.

MAIN FEATURES

- Digital Microprocessor with Intelligent Digital Signal Processing
- Tri-color LED enables accurate and reliable calibration, with "over-sensitive" and "under-sensitive" indications
- Gross attack detections
- Shock and Contact detection reported to separate zones in the receiver
- Detects attempts of magnet tampering (0.3T)
- Encapsulated bi-morph piezo electric sensor
- Dual stage adjustment potentiometer
- Back & Cover tamper protection
- Operates up to 300m (1000 ft) range (LOS)
- Uses one of more than 16 million addresses codes
- Hold on/off
- Fully supervised

DIPSWITCHES

Dipswitch	**Description**	
1	Used to enable or disable LED	
	Dipswitch Position	**LED**
	ON (Default)	Enabled
	OFF	Disabled
2	Used to determine the sensitivity of the Shock detector	
	Dipswitch Position	**Sensitivity**
	ON (Default)	High
	OFF	Low
	NOTE: For fine tuning use the sensitivity trimmer.	
3	Used to determine the detector **HOLD** status (Contact Only)	
	Dipswitch Position	**Hold Status**
	ON	There will be 2.5 minutes dead time between the alarm detection transmissions. (Restore messages will be sent immediately)
		NOTE: Only one alarm message is transmitted in any 2.5 minute period.
	OFF (Default)	No dead time between alarm detection transmissions (the unit transmits after each detection)
4	Used to enable or disable the Contact	
	Dipswitch Position	**Internal Reed Switch (S1)**
	ON	Disable
	OFF (Default)	Enable
5	Used to enable or disable the anti-sabotage function (Contact Only)	
	Dipswitch Position	**Anti-Sabotage Reed Switch (S2)**
	ON	Enable
	OFF (Default)	Disable
6	Not applicable	

LED INDICATION

After each detection, the LED turns ON momentarily.
On Low Battery condition, the LED will blink during each transmission.

GREEN	Indicates an alarm condition for Shock detection
RED	• Under-Sensitive indication of Shock detector • Indicates an alarm condition for Contact detection • Tamper indication • Enrollment message
ORANGE	Over-Sensitive indication for Shock detection

FRONT COVER REMOVAL

Remove the front cover as described in Figure 2.

DSK Enrollment

For complete description of the wireless configuration and device enrollment, refer to Programming Guide for the FORCE and VISION Alarm Systems.

Enrollment of the DSK in the system can be performed manually or automatically via the keypad.
The Shock detector and the Contact detector must be enrolled separately. This is accomplished by performing the following steps:

Auto Enrolling (using RF Communication)

1. Enter Installer menu and select: System Configuration > Peripherals > Wireless Peripherals > Enroll and delete > Detectors >Enroll >Auto Enrollment.
2. Remove the battery from the insulation material and reinsert it into the transmitter, paying attention to the polarity (see Fig. 3).
3. Enroll each detector separately for its zone number. Use Dipswitch 3, as described in the table below, to choose a detector. To enroll the Shock detector set the Dipswitch to the OFF position and press both tamper buttons for at least 3 seconds; verify the serial number appears on the keypad display and press on Enroll

.

Detector	Dipswitch 3	Restore
Shock detector	OFF (Default)	No
Contact Detector	ON	Yes

4. To enroll the Contact detector set Dipswitch 3 to ON and press both tamper buttons for at least 3 seconds; verify the serial number appears on the keypad display and press on Enroll.
5. Exit the enrollment menu.

Manual Enrolling:

1. Enter Installer menu, and select: System Configuration > Peripherals > Wireless Peripherals > Enroll and delete > Detectors >Enroll >Manual Enrollment
2. Enter the serial number and press ⏎.
3. Select Enroll and press ⏎.

Enrolling using the Force Manager Software:

For information about enrolling the DCM using the Force Manager software, refer to the Force Manager Manual.

Verify that the receiver has identified each of the detectors by generating a tamper signal (by momentarily closing and opening both tampers). The tamper message will be sent twice, once for each detector.

NOTE: If for any reason it is necessary to re-enroll, press both tamper buttons (back and cover) for at least 3 seconds.

INSTALLATION INSTRUCTIONS

Considerations for wireless communication

1. For best wireless communication, place the unit at the highest possible position.
2. Temporarily attach the unit to this point using two-sided adhesive tape.
3. Generate an Alarm or Tamper signal and verify that the receiver has received the signal. If the signal is not detected, reposition the transmitter and try again.

Considerations for shock detection

1. Select the intended position for installation, ensuring the surface is clean and clear of any irregularities. Refer to Table 1 for details about detection ranges for the different surface types.
2. Set the detector's sensitivity as follows, using the sensitivity trimmer:
   i. With the unit set for normal operation, use a suitable instrument to bang or tap the protected area.
   ii. If the sensitivity needs adjustment, use a screwdriver to adjust the trimmer (turn the trimmer control clockwise to increase sensitivity or counterclockwise to reduce sensitivity).
   iii. Repeat steps i and ii until the desired sensitivity level is achieved. If required, you can set Dipswitch 2 to OFF to reduce sensitivity range.
3. Close the front cover.

Surface	Concrete	Brick Wall	Steel	Glass	Wood	Plywood
Radius	1.5m 5ft	2.5m 8.2ft	3m 10ft	3.5m 11.5ft	3.5m 11.5ft	4m 13ft

Table 1: Typical Detection Range

The above values are typical and are subject to practical testing, which must be performed for each installation. In some environments, these values may differ from the values listed above.

Considerations for magnet installation

1. Install the DSK in a place that enables you to install the magnet in parallel to it (for example: door frame).
2. Install the magnet on the right side of the DSK as indicated in Figure 6.

NOTES:

- Maximum distance of the magnet from the detector is 20mm (0.7inch).
- Position the magnet as close as possible to the same plane level as the back surface of the DSK.
- The mark on the magnet's plastic case should be opposite to the mark on the detector's case.

- Placing the magnet on the wrong side of the DSK will cause a tamper alarm signal.

FINAL MOUNTING

Separate the back part of the transmitter (Fig. 4) and mount all the parts in place (Fig. 5).

SPECIFICATIONS

ELECTRICAL	
Battery Type:	CR123 3V Lithium Battery
Current Consumption:	10µA standby
Power output	10mW Max.
Frequency:	433.92 / 868.65MHz
Supervision Transmission:	868.65MHz model: every 15 minutes 433.92MHz model: every 65 minutes
Modulation Type:	ASK
Battery Life:	3 years depends on usage
PHYSICAL	
Size:	81 x 35 x 32 mm (3.2 x 1.37 x 1.27 in.)
ENVIRONMENTAL	
Operating temperature:	0°C to 55°C (32°F to 131°F)
Storage temperature:	-20°C to 60°C (-4°F to 140°F)
Maximum humidity:	95% non-condensing

Specifications are subject to change without prior notice.
Should any questions arise please contact your supplier.

ORDERING INFORMATION

Model	Frequency	P/N
DSK743	433MHz	8841207
DSK786	868MHz	8841209

Contacting PIMA

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Scan for technical documentation

Limited Warranty

PIMA Electronic Systems Ltd. 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. The User understands that a properly installed and maintained equipment 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.
Read this guide in its entirety before attempting to program or operate your system. Should you misunderstand any part of this guide, please contact the supplier or installer of this system.

WARNING: This product should be tested at least once a week

UKCA and CE RED Compliance Statement

Hereby, PIMA declares that this equipment is in compliance with the essential requirements of the UKCA Radio Equipment Regulations 2017 and CE Directive 2014/53/EU.
For the UKCA and CE Declaration of Conformity please refer to our website: www.pima-alarms.com