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REVISIONS

ECO	Description	Checked By	Date	Engineer	Date	Eff. Date
#00039	Product release					

Notes:

1. Material: 80g printing paper, white. A4 size.
2. Printing: Black
3. Pack and tie a label with part number 0-ML00-0004-01-1.

SUREN [®] <small>Suren Systems Ltd.</small>		ITEM NO 0-ML00-0004-01-1	REV 1
APPROVALS	DATE	MANUAL, DF-6018 , ENGLISH	
DWN Sally Chang	08-2-2007		
CHK		DRAWING NO N-ML00-0004-01-1	
ENGR			
IDENT CODE		REV 1	
DO NOT SCALE DRAWING	SIZE A	SCALE 1:1	SHEET 1 OF 3

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DF-5015 DFIR™ Motion Sensor

Operation and Specifications

SUREN

The DF-5015 is a high-grade professional motion sensor engineered with the world's best components and materials. Special Dual-Frequency Infrared (DFIR™) opto-electronics provide the highest level of false alarm immunity available in a passive infrared motion sensor. The principle of DFIR is simple: a moving object produces two signal frequencies; white light, electromagnetic interference, hot air, stationary changing-temperature objects (typical false alarm sources) produces only one signal frequency. Thus, by rejecting one-frequency signals, the DF-5015 rejects false alarms. The DF-5015 features two quad-element DFIR detection systems, one for long-range sensing and one for short-range sensing. The all-range upper system is SUREN's Split-View™ DFIR**, with a quad-element detector vertically dividing the usual (+) and (-) fields-of-view. The short-range lower system adds another complete detector and lens set, which works with the upper system to create SUREN's Super-View™ DFIR**.

SENSOR INITIALIZATION

Following power-on, a DF-5015 sensor is fully operational after a two-minute warm-up.

ALARM PROCESSING

DF-5015 alarm processing is designed for extreme false alarm rejection. This processing is a quantum leap above that of standard PIR motion sensors that simply count signal events. Both the Split-View™ DFIR** and the Super-View™ DFIR** detector/lens systems produce two infrared detector signals for evaluation by the DF-5015's microprocessor alarm processing system. The fields-of-view are set up so that moving objects produce two detector signals of different frequencies, while non-moving false alarm sources produce two detector signals of the same frequency.

IR Sensor:

Upper: quad-element, Split-View™ DFIR**
Lower: dual-element

Power Supply:

8-16 Vdc; 15 mA at 12 Vdc

Alarm Relay:

Solid state, 60V, 150 mA,
1500 V_{rms} isolation

Events Detection:

SureSpot™ processing engine
DFIR™ false signal rejection

White Light Immunity:

25000 lux

Wire list

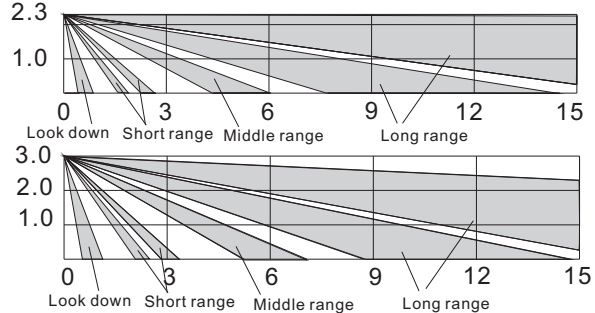
Red(+) Black(-), 12Vdc
The Relay wire is blue

Note: Specifications are subject to change without notice.

SPECIFICATIONS

Range: 15 meters in sensor-facing direction
20 meters at 45° angle from sensor-facing direction

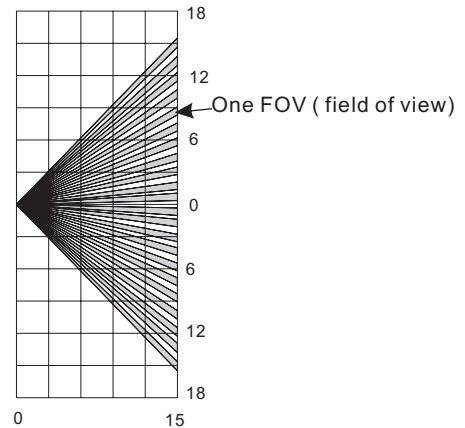
Sensor Optical View Pattern (side view, in meters)



Optical Fields-of-View:

Long-range 88 Mid-range 30 Short-range 18 Look-down 8

Sensor Optical View Pattern (top view, in meters)



DF-5015 Installation Instructions

1: Mounting Location

A. Wall mounting:

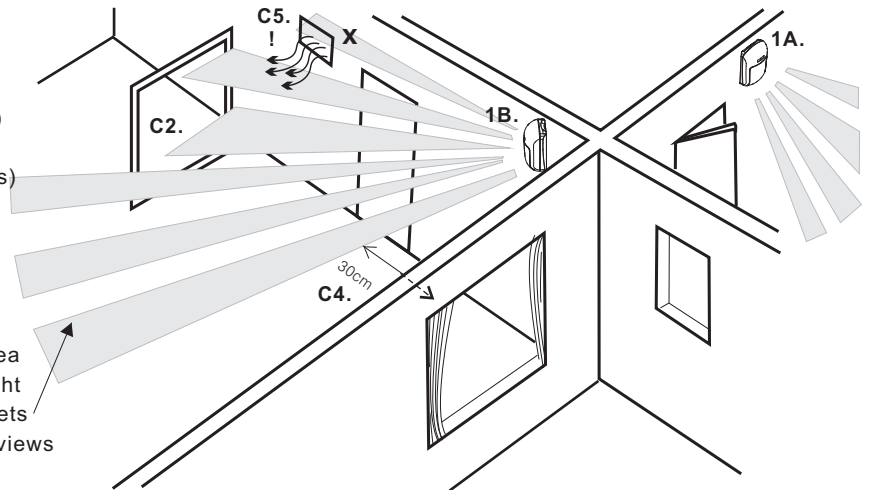
1. Sensor base fastened flat on vertical wall (± 2 degrees)

B. Bracket mounting:

1. Bracket fastened to semi-vertical surface (± 15 degrees)
2. Sensor on bracket in vertical position (± 2 degrees)

C. All mounting:

1. Height = 2.3 m or 3m above floor of monitored area
2. Clear line-of-sight from sensor to monitored area
Note: glass will block sensor's view.
3. Wall temperature similar to walls/floor of monitored area
4. Sensor aimed away from windows and reflected sunlight
5. Sensor aimed away from heaters or heater/cooler outlets
6. Sensor aimed so that likely intruder paths cross three views



Limitations of Security Products: Security products and alarm systems do not offer guaranteed protection against burglary, fire, or other emergencies. They may fail to warn for diverse reasons, including (but not limited to): power failure, dead batteries, improper installation, coverage "blind spots", coverage areas overlooked during installation, defeat by technically sophisticated intruders, component failure, or inadequate maintenance. Alarm systems should be checked weekly to ensure that all devices are working properly. AN ALARM SYSTEM IS NOT A SUBSTITUTE FOR INSURANCE.

SUREN LIMITED WARRANTY

SUREN Systems, Ltd., of Fo Tan, Shatin, Hong Kong, warrants its products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for twelve months from the date of original purchase. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any part which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Seller. For warranty service, return transportation prepaid, to SUREN Systems, Ltd., Unit 15, 12/F, Block B, Wah Sang Industrial Building, 14-18 Wong Chuk Yeung Street, Fo Tan, Shatin, Hong Kong. Seller has no obligation to attend the buyer's location to retrieve the goods or make repairs on site.

There are no warranties, expressed or implied, of merchantability, or fitness for a particular purpose or otherwise, which extend beyond the description on the face hereof. In no case shall seller be liable to anyone

for any consequential or incidental damages for breach of this or any other warranty, express or implied, or upon any other basis of liability whatsoever, even if the loss or damage is caused by its own negligence or fault.

Seller does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the products will in all cases provide adequate warning or protection. Customer understands that a properly installed and maintained alarm system may only reduce the risk of a burglary, robbery, or fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result.

Consequently, seller shall have no liability for any personal injury, property damage or other loss based on a claim the product failed to give any warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, seller's maximum liability shall not in any case exceed the purchase price of the product, which shall be the complete and exclusive remedy against seller.

This warranty replaces any previous warranties and is the only warranty made by Seller on this product. No increase or alteration, written or verbal, of the obligations of this Limited Warranty is authorized.