

Akab-m

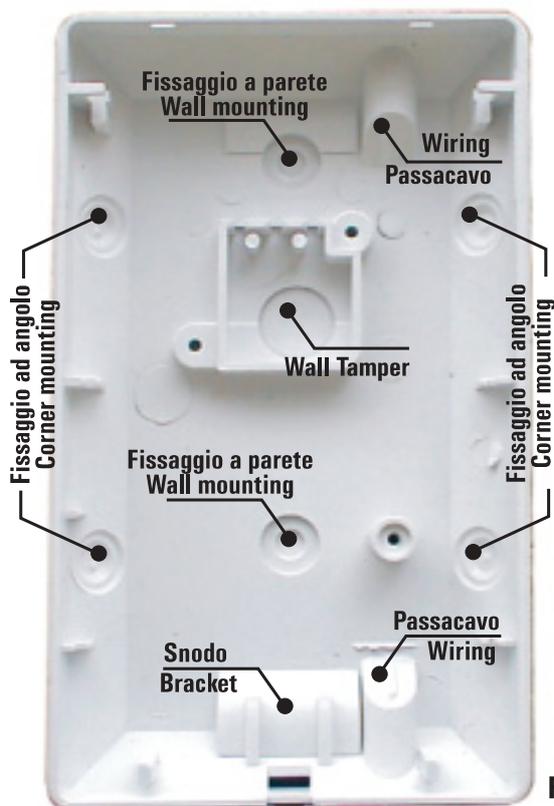


Fig.1

INSTALLATION MANUAL

FEATURES

- Microwave OFF
- Digital sampling of the signal
- Modes of detection: EI OR - AND
- Detection sensibility selectable
- Memories of alarm type
- Interactive LED OFF
- Antifliker
- Solid state relay
- Microwave stripline with pulse emission
- Fresnell lens 18 zones on 4 planes With look down zone
- Vertical adjust
- Sealed optics
- Wall tamper
- Cover 90 degrees for 15 Mt
- Corner, wall or bracket mounting
- Bracket (optional) anti-vibration with regulation 90°horiz. 30°vert

The **AKAB-M** is a motion detector with 3 modes of detection, equipped with two high quality sensors:

- A) A dual element infrared (IRP)
- B) A microwave microstrip (uW).

Both the sensors are supervised by a microcontroller that optimises performance.

The **AKAB-M** offers the advantage of 3 different modes of detection with two levels of sensibility, which enables the choice of the most useful for the area to be protected.

In addition to the traditional AND / OR the **AKAB-M** offers the EI modality recommended for installation in area where is possible sabotage with spray varnish on the IRP lens. Furthermore the **AKAB-M** offers a multitude of function among which is the Microwave OFF and memory of alarm type.

SYSTEM INSTALLATION

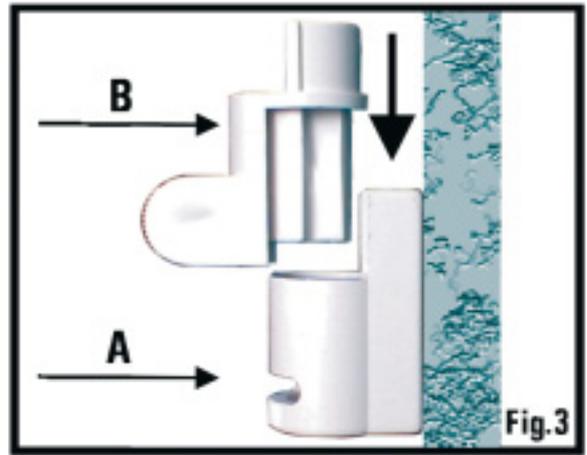
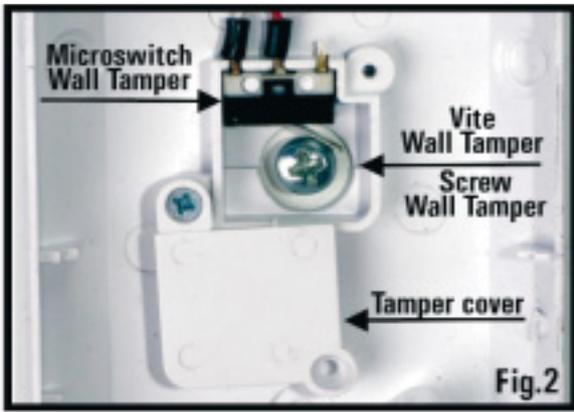
Select the best possible location in the room for both the IRP and uW technologies. If possible, aim the unit towards the room's interior and away from windows, moving machinery, heating and cooling sources

WALL MOUNTING

The maximum range is obtained at mounting height of 2,10 Mt., Vertical Adjust in A position (fig 8); It's possible to mount the detector at a height up to 4 Mt (fig 6-7).

Make sure that the sensor has a clear line of sight to all areas you wish to protect. Remove the front cover, loosen the screw and remove the circuit board.

Engrave, as need, the keyholes on the back cover (fig 1), knock out the Wall Tamper keyhole if required (CEI 79-2 II°Liv.) cut out the wire keyhole.



Sign the holes on the wall having care to sign the hole Wall Tamper at the centre of the keyhole. Make the fixing hole (6mm) on the wall. Fix the screw Wall tamper at the wall leaving the screw head out of 5/6 mm. Run the cable through the wire keyhole.

Fix the back cover on the wall with the screws furnished; make sure that the screws are securely fixed in their keyholes. Apply the microswitch Wall Tamper in his housing (fig.2), fold up the lever so that will remain pushed by the screw and then fix the tamper cover with the furnished screw.

Mount the circuit board.

Connect the microswitch to the Wall Tamper connector (fig 4). Wire the cable on the terminals.

BRACKET MOUNTING (OPTIONAL)

Fix the grip A (fig.3) on the wall with the screw furnished. Make up the bracket inserting the grip B into the grip A. Re-

move the front cover, loosen the screw and remove the circuit board. Engrave the bracket keyhole and the wire keyhole on the bottom of the back cover (Fig.1), and with the screw furnished fix the bottom of the back cover on the bracket.

Direct the back cover to the wanted direction then block it by clamping the screw. Run the cable through the house.

Mount the circuit board.

Wire the cable on the terminals.

Apply power to the AKAB. A 60" self test will be performed; during this period the leds will flash alternately. At the end proceed with the calibration.

TEST (CALIBRATION)

UW

Set the trimmer at minimum, (range min. 4mt, max 15mt), go to the border of the protected area and, with leds off, move towards the unit to verify the detection of the uW and set sensitivity; the green led will light up. Whenever the green led will not light up increase the range of the uW by turning the trimmer clockwise; repeat the test until the required condition is obtained.

N.B. REGULATION OF THE uW: the range must be regulated to the minimum necessary because the uW can penetrate walls and detect from outside the protected area.

NOTE: regulating the uW at a high range does not improve detection in the desired area.

IRP.

Mount the front cover and, when leds are off move in the area where IRP must verify intrusion. The lighting of the yellow led enables verification of no shadow zones in the protected area. DETECTION MODE

AND

DIP SWITCH N°1 IN POS. OFF

The alarm condition occurs, if both the sensor, at (or about) the same time give an intruder signal. Recommended for installation in areas that could create environmental disturbance.

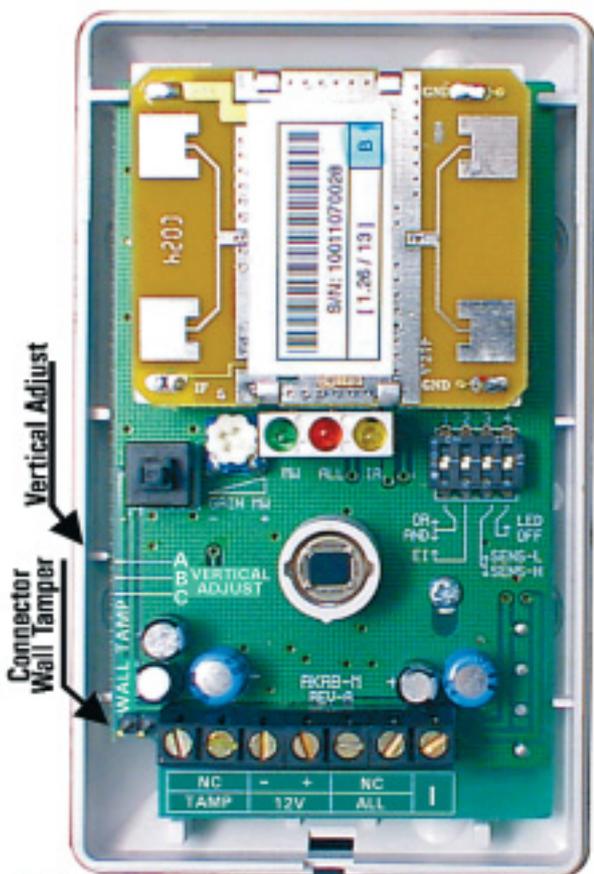


Fig.4

OR

DIP SWITCH N°1 IN POS. ON

The alarm condition occurs, only if one of the 2 sensors gives an intruder signal.

Recommended for installation in areas that does not present environmental disturbance and that requires an elevated capability of detection.

EI

DIP SWITCH N°2 IN POS. ON

IN THIS POSITION THE DIP SWITCH N°1 DOES NOT HAVE EFFECT

The alarm condition occurs, if both the sensors, at (or about) the same time give an intruder signal, (like "AND") or if there are many detections of uW with no detection of IRP.

Recommended for installation in areas that require the "AND" mode but could present shadow zones for the IRP, or for rooms where sabotage is possible with for example varnish spray on the IRP lens.

SENS -L

DIP SWITCH N°3 IN POS.ON

Sensitivity detection reduced for both the detectors.

IRP: detection will occur when crossing both edges of a zone

uW: speed detection 0.5 sec. With a human movement of 6.6 Mt/sec.

FUNCTION

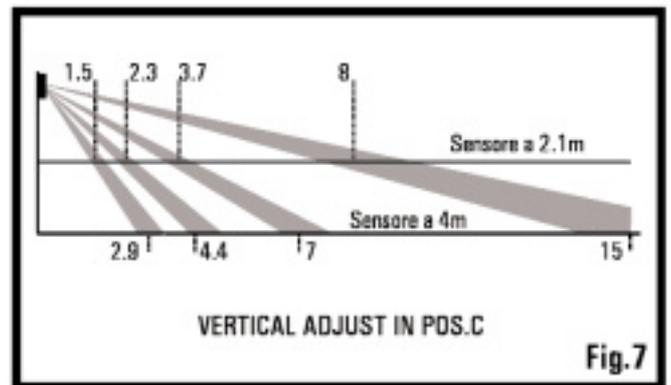
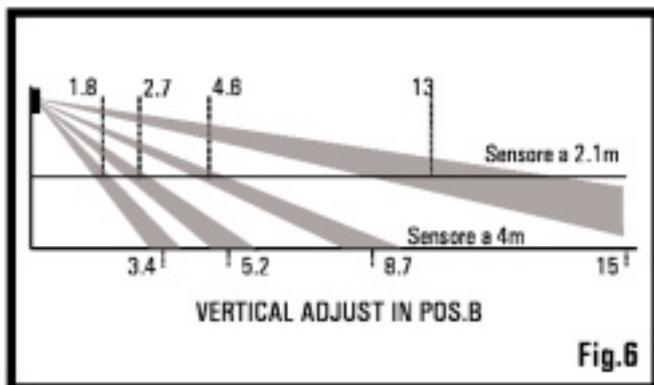
LED OFF:

DIP SWITCH N°4

The ON position disables the display of detection and alarm. With the INHIBIT line connected, when the system will be armed off, the detector will enable the display for 30 sec. from the first detection.

MICROWAVE OFF

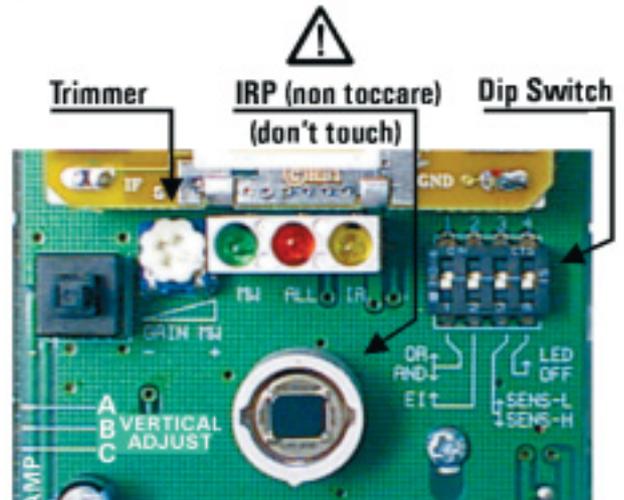
In the LED OFF mode and with the INHIBIT line connected, at the arming off of the system, the microwave will be switched off to not radiate unnecessarily the protected area.



Diagrammi di copertura con rilevatore montato a 2 e 4 metri di altezza e Vertical Adjust in posizione B e C

1) VISUALIZZAZIONI IN STATO DI MEMORIA			
ALLARME	Led VERDE	Led ROSSO	Led GIALLO
IRP+uW	SPENTO	ACCESO	SPENTO
IRP	SPENTO	ACCESO	ACCESO
uW	ACCESO	ACCESO	SPENTO

1) MEMORY DISPLAY			
ALARM	GREEN Led	RED Led	Yellow Led
IRP+uW	OFF	ON	OFF
IRP	OFF	ON	ON
uW	ON	ON	OFF



RELAYS INHIBITION

With the INHIBIT line connected, at the arming off of the system, the alarm relays will be inhibited.

MEMORIES

With the INHIBIT line connected, at the arming off of the system, the memory will be activated. It will display the eventual memory of the cause that has generated the first alarm, by the lighting of the LED's. (see Tab.1), which will be reset by the control panel unit at its insertion.

If no alarm has been memorised, the LED's will continue to display the detection.

SPECIFICATION

VOLTAGE	12V \pm 30 %
CURRENT MAX	35mA
CURRENT stand by	15mA
MICROWAVE	microstrip 8dBm
	9.5 - 10.6 Ghz
ALARM PERIOD	3 sec
RFI IMMUNITY	0.1 to 500 Mhz
	3 V/m
SOLID STATE RELAY	100mA / 24V
COVER TAMPER	100mA / 30V
WALL TAMPER	300mA / 48V
OPERATING TEMP	-10°C/+55°C
CERTIFICATED TEMP.	+5°C/+40°C
AMBIENT UMIDITY	95%
MTBF TEORIC	98.803 ORE
DIMENSIONS	108 x 64 x 46 mm
PERFORMANCE LEVEL	IMQ I°Liv.
(With kit Wall tamper)	IMQ II°Liv.



MADE IN ITALY

