Akab Sync System

DOUBLE TECHNOLOGY SYNCHRONIZED

NO FALSE DETECTIONS
DUE TO MICROWAVE INTERFERENCE
BETWEEN DOUBLE TECHNOLOGIES

ADVANTAGES:

- Now is possible to be protected against **SABOTAGES** on the infrared using the EI* mode, without false alarms due to microwave interference between double technologies.
  This feature combined with the microwave **ANTIMASK** function makes the detector not **SABOTABLE**

- In installations with more double technologies operating in the **AND** mode, the microwave interference will let the double technology to work as a passive **INFRARED** (low quality)
  With the microwave synchronization now its possible to let the double technologies to work as wanted

*EI MODE : The alarm condition will occur as in **AND** or if they are many detections of microwave with no detection of infrared .
Recommended for installations where sabotage of the infrared are possible (**VARNISH SPRAY**).

Upgradable
II°LIV.

R&TTE   CE 0682 ①   FCC ID: SC3AKAB

Akab

Sync-8 board

DOUBLE TECHNOLOGY DETECTORS: PROBLEMS AND SOLUTIONS

MICROWAVE INTERFERENCE

To operate in the respect of the CE rules, the microwaves bandwidth is restricted, so the working frequencies are close the same, for this reason in rooms with more double technologies you can have microwave interference with false detections.
To avoid the problem the installer should:

Install the double technologies far away from each other making the installation more complex. With an increasing of the cost and a reduction of the security.
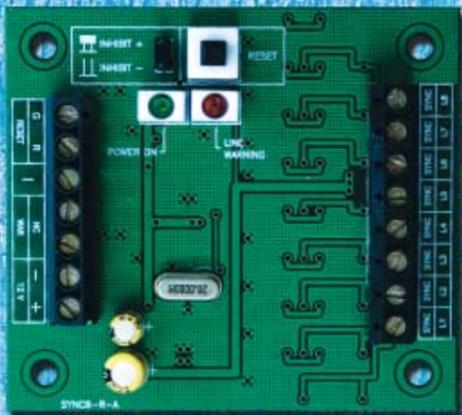
Ignore the problem and have always the microwave in detection and go in alarm with the infrared. In this case the double technology has became a passive infrared.

to mask the problem many double technologies constructor operate in the following modes

1) Makes the microwave less sensitivity so it will be more hard to detect

2) Starting a microwave detection only after an infrared detection

In both cases the problem will not be resolved but it is less evident at the installation. In other words the problem has been hidden to the installer.

The microwave synchronization function implemented on the AKAB-W model permits to synchronize up to eight detectors ,so to eliminate completely the problem. Just connect the INHIBIT line of each detector to the SYNC-8 module, to be free to make the installation in the more congenial way.

MICROWAVE MASKING

The microwave sensor is composed by a radio transmitter at high frequency 10,525 Ghz and a receiver. The waves transmitted are reflected to the receiver when meets an obstacle, generating an electrical signal with intensity proportional to the quantity of energy reflected, direct if the object is in movement, alternate if in movement (detection).

So to have a detection movement, the radio waves should reach a moving target to be reflected to the receiver, so to have an electrical alternate signal.

To neutralize the detection of microwave just cover with a tin-foil the detector so that all the radio waves emitted by the microwave are reflected without irradiating the ambient, and a moving object can not be reached by the emitted waves:

THE MICROWAVE IS MASKED

This condition causes an increasing of electrical signal of the microwave.
The AKAB-W if verifies an increasing of the electrical signal, activates the MASKING signal, releasing the Antimask relay e displaying the condition by the led.

PROTECTION AGAINST THE SABOTAGE
OF INFRARED

The double technologies that operates in the "AND" mode, will give an intruder alarm only if both the sensors at or about the same time gives an intruder signal.
So it will be sufficient that just one of the two sensors has the detection blocked to prevent an alarm signal.

The most easy way to make inoffensive a double technology is to sabotage the infrared with transparent VARNISH SPRAY or with paper, the infrared will not detect and the double technology can not signal the intrusion.

Practically a double technology in the "AND" mode has the same security grade of an infrared and the only microwave antimask function does not protect against the sabotage, in fact is more easy to sabotage the infrared.

The AKAB double technologies offers beyond the "OR" modality the "EI" mode
That generates an alarm condition as in "AND" or if they are more detections of microwaves without any detections of infrared, in this way if the infrared is blocked the microwave will continue to detect and the detector to signal an eventual intruder.

Akab-w

MAIN FEATURES

SYNCRONIZATION FEATURE

It's possible to synchronize up to eight detectors AKAB-W to eliminate the interference between microwaves

ANTIMASK WITH AUTOSET

The antimasking function of microwave with autoset of the AKAB-W is equipped with a dedicated relay output.

MODES OF DETECTION

In addition to the usual "AND"- "OR" the AKAB is equipped with two levels of sensitivity and the "EI" mode to prevent sabotages on th infrared (VARNISH SPRAY)

MICROWAVE OFF

At the disconnecting of the central unit the AKAB-M has the possibility to switch off the microwave to not irradiate in vain the people in the protected area.

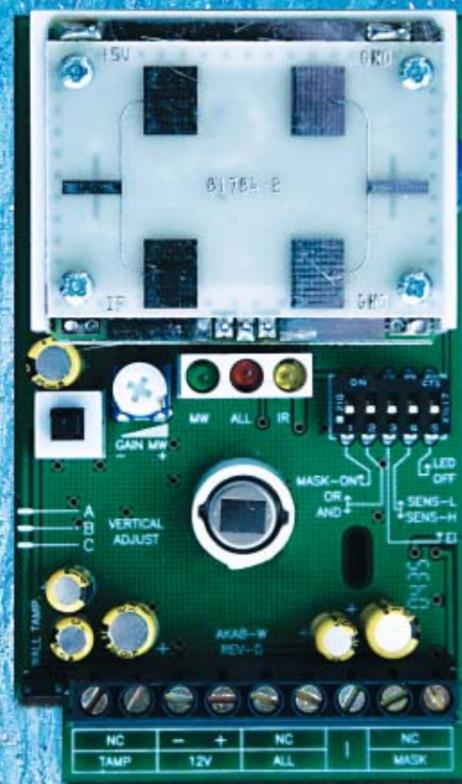### 4 TYPE OF MEMORIES with DELAY

This function is suitable for timered zone, and contains the memory and the display of the type of alarm occurred: microwave, infrared, microwave + infrared, masking
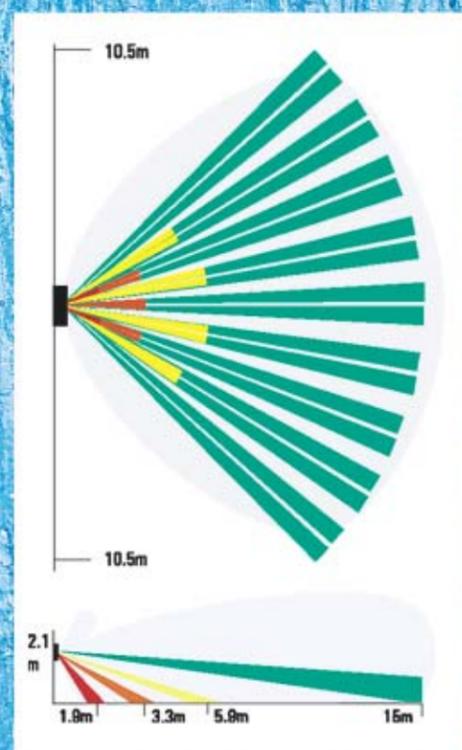
INTERACTIVE LED OFF

Permits to verify daily the detections of the detector by LEDs also in the LED OFF modality.

ANTIFLICKER

This function discriminates the signals of microwave due to electrical and mechanical flickering. Useful for the disturbances caused by fluorescent lamps.

Cover

Detectors Akab

Double technology IRP+uW

Akab-w

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FEATURES
Antimask autoset
Microwave Synchronization
Detection mode: - EI - OR - AND
Microwave Off
Memory type alarm
Interctive Led OFF
Antiflike
Fresnell lens whith look down zone
Vertical adjust
Cover 90° per 15mt
Mountring : wall, corner,brackett

Synchronization board

Sync-8

CE

FEATURES
Up to eight Akab-w synchronizable
Inhibit input selectable
Warning board signalation
Trouble shooting

Double technology IRP+uW

Akab-m

CERTIF. | Upgradable IP'UN. | R&TTE | CE 0682 ① | FCC ID: SC3AKAB

FEATURES
Detection mode: - EI - OR - AND
Microwave Off
Memory type alarm
Interctive Led OFF
Antifliker
Fresnell lens whith look down zone
Vertical adjust
Cover 90° per 15mt
Mountring : wall, corner,brackett

Passive Infrared

Akab-ir

CE

FEATURES
digital sampling of the signal 4mode of detectionrange selection
presettedalarm memory with delaycalibration test
interactive led off low consumptionsolid state relay vertical adjust
sealed optics
wall tamper
irp dual element
interchageable lens
fresnel lens (standard) 18 zones on 4 planes with look down zone

Hub
Bracket for Akab

Hub
Wall brackett for AKAB

FEATURES
Horizontal Orientation +/- 45°
Vertical Orientation - 30°
Internal through cable
Kit II° Level IMQ for AKAB-W and
AKAB-M optional

Hub-c
Ceiling adaptor for HUB

FEATURES
Adaptor for ceiling installation
for HUB brackett
Internal through cable
Kit II° Level IMQ for AKAB-W and
AKAB-M optional

Hub-a
Corner adaptor for AKAB and HUB

FEATURES
Corner installation adaptor
 for AKAB and HUB
Internal Through cable
Kit II° Level IMQ for AKAB-W and
AKAB-M optional

Kit Wall Tamper
Kit II° Liv for AKAB and HUB

FEATURES
Kit wall tamper for II°Level IMQ
for HUB, AKAB-W and AKAB-M