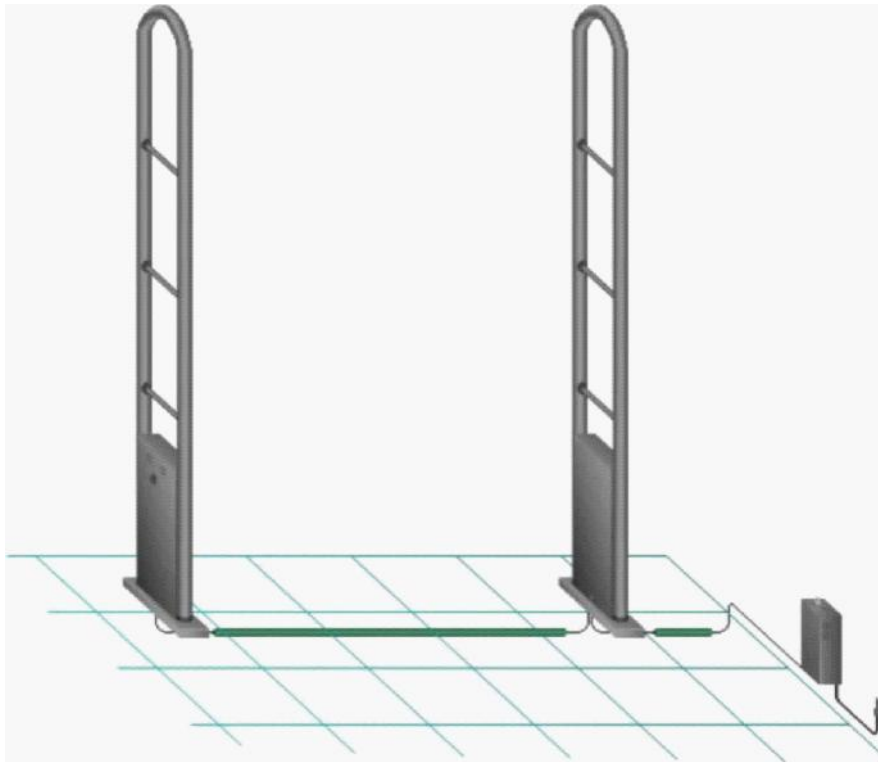




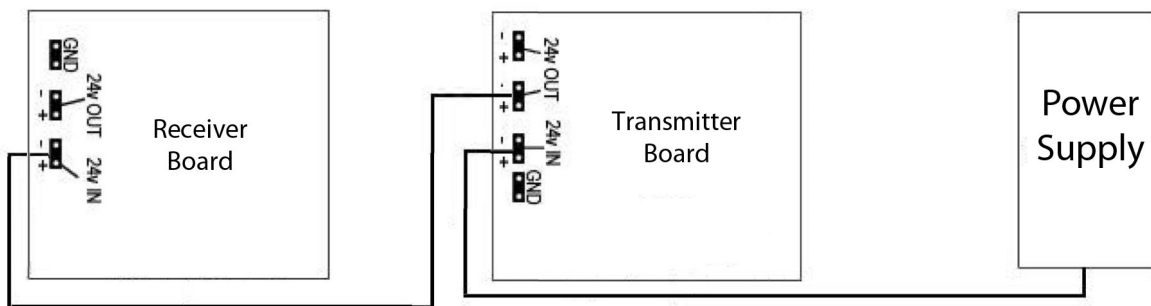
## AD04-01

# EAS DUAL ANTENNA SYSTEM WITH DSP Installation Manual





## Electrical *Instalación*



The power supply must be connected to the transmitter board, the receiver receives power from the transmitter, do not connect the receiver board directly to the power source.

### **Conexions**

Use 2 x 0.3 mm shielded cable. If the distance between the power supply to the transmitter is more than 15 feet, use shielded 2 x 0.5 mm cable. All cables must be protected by a plastic tube or other cable protector.

As far as possible, do not extend the output cable of the power supply (24V), preferably extend the 110V connection.

**Check the power connectors polarity for the receiver and Transmitter board**

Caution: Do not place the cables on the roof around the antennas or parallel to the structure of the antennas, this could affect the operation of the system

## Distance between the antennas

The table in figure 1 provides a reference for determining the maximum allowable separation. However, the spacing values shown in this table may decrease depending on the operating environment, steel structures and power lines located near the antennas may interfere with their optimal operation.

Figure 1

Detection Distance	Label 40*40mm	160-180cm
	Mini Hard Tag	170-190cm
	Hard Tag	200-220cm

## Power Supply

The basic system incorporates a transmission antenna, a receiving antenna, and a power supply unit (PSU).

The voltage at the PSU output is 23.5 to 24.5 V - DC. Only 1 transmitter and up to 2 receivers can be connected to one power supply.

## Important note

**Before making the final installation, it is recommended to test the chosen site to verify that the system works correctly in that particular site.**

**Depending on the tests, the final location of the antennas will be decided in agreement with the client.**

**Once the wiring is done and the antennas are anchored to the floor, it may be difficult and / or expensive to change antenna locations.**

**Therefore, these tests on the site are of great importance before beginning any installation work.**

**These tests will make it possible for the installer to notice any interference in the environment.**

## Adjustments

There are only two possible adjustments at the installation time, one is the alarm sound volume level and the sensitivity level potentiometer, **CAUTION: DO NOT MOVE ANY OTHER POTENTIOMETER, THIS COULD MAKE THE SYSTEM UNUSABLE.**

The sensitivity adjustment must be done only if the alarm is triggered from an external agent. In standby status, try to keep off all the red signal level leds on the receiver board, the green led must be on, if the first red led is on, this could be no problem as long as the second and third leds are not triggered, in this case you need to lower the sensibility, please use an alignment tool like the one shown below, turn the potentiometer counterclockwise to lower the sensibility and clockwise to increase the sensibility, this is a multi turn potentiometer.



## Detection Problems

The label is aligned with a metal surface, that is, the label is in parallel with a metal surface.

Two labels placed against each other.

The tag is enclosed in a Faraday cage (for example, aluminum foil).

An important metallic mass is found near a label.

The separation of the antennas is out of range.

The tag or label is not compatible with the system (different frequency)

## **Sources of interference**

The electrical network generates interference due to the numerous equipment connected in parallel and devices (motors, spotlights, fluorescent lamps, etc.). It is recommended if possible, a dedicated line directly from the electrical distribution board. This line must be installed by an authorized installer.

The uninterruptible power supplies used for example in computer systems operate at a harmonic frequency similar to that of the EAS system and may cause system interference and, therefore, in no case should the EAS system be connected to one of the These power supplies Uninterrupted.

The metallic masses generate interferences due to the system absorbs and reverberates electromagnetic waves.

Avoid the installation of antennas near these metal masses, they must be kept at a minimum distance of 60 cm.

Metal frames or guide bars sometimes behave as resonance circuits tuned to the frequency of the system.

Steel door frames sometimes behave in the same way. The antennas should be installed away from those structures, place the system away from steel frame doors.

Defective neon fluorescent lighting, generate interferences.

Some transformers that are used in this type of lighting fixtures may be defective and cause interference.

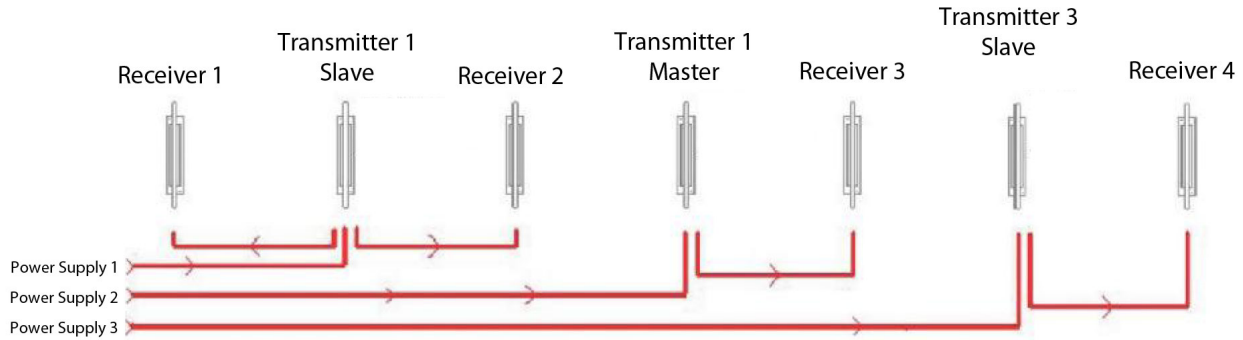
All electromagnetic devices incorporate transformers, motors or mobile magnets, including fluorescent neon tubes, quartz halogen bulbs, conveyor belts, etc., which can also be a cause of interference.

Avoid installing the antennas very close to electrical cables. Move the antennas and perform various tests to evaluate the best location.



## Multiple Antennas installation

**Transmitters must be oriented in the same direction so they are in phase**

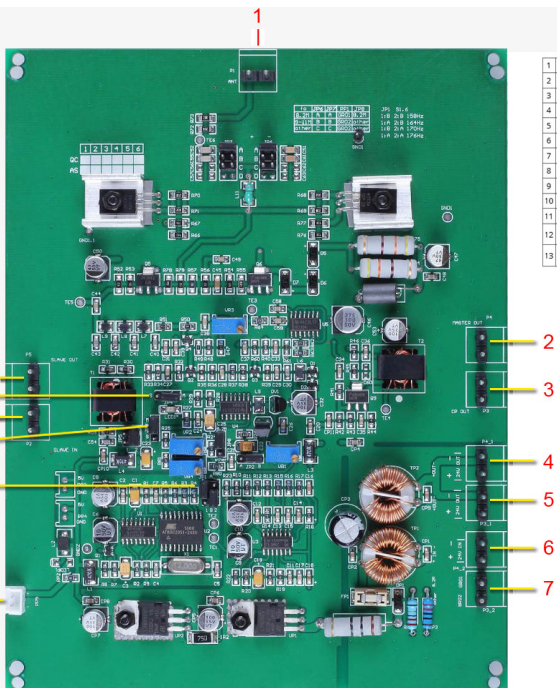


## Synchronization cable

The most important thing about the installation of the multiple system is the phase and the intensity of the synchronous signal. As shown in the previous figure, you must configure the central transmitter as MASTER, and configure the others transmitters like SLAVE. This will make the most synchronized synchronization signal. Make sure all transmitting antennas are oriented in the same direction so they are in phase.

The feeding of the receiving antennas, must come from the output of the transmitting antenna (DC OUT), do not connect the receiving antennas directly to the power supply.

## TRANSMITTER BOARD



## RECEIVER BOARD

