AIR2OBJECT Security

Open Object Presentation Secured Over the AIR

MEMO LOCK
AIR-2-OBJECT
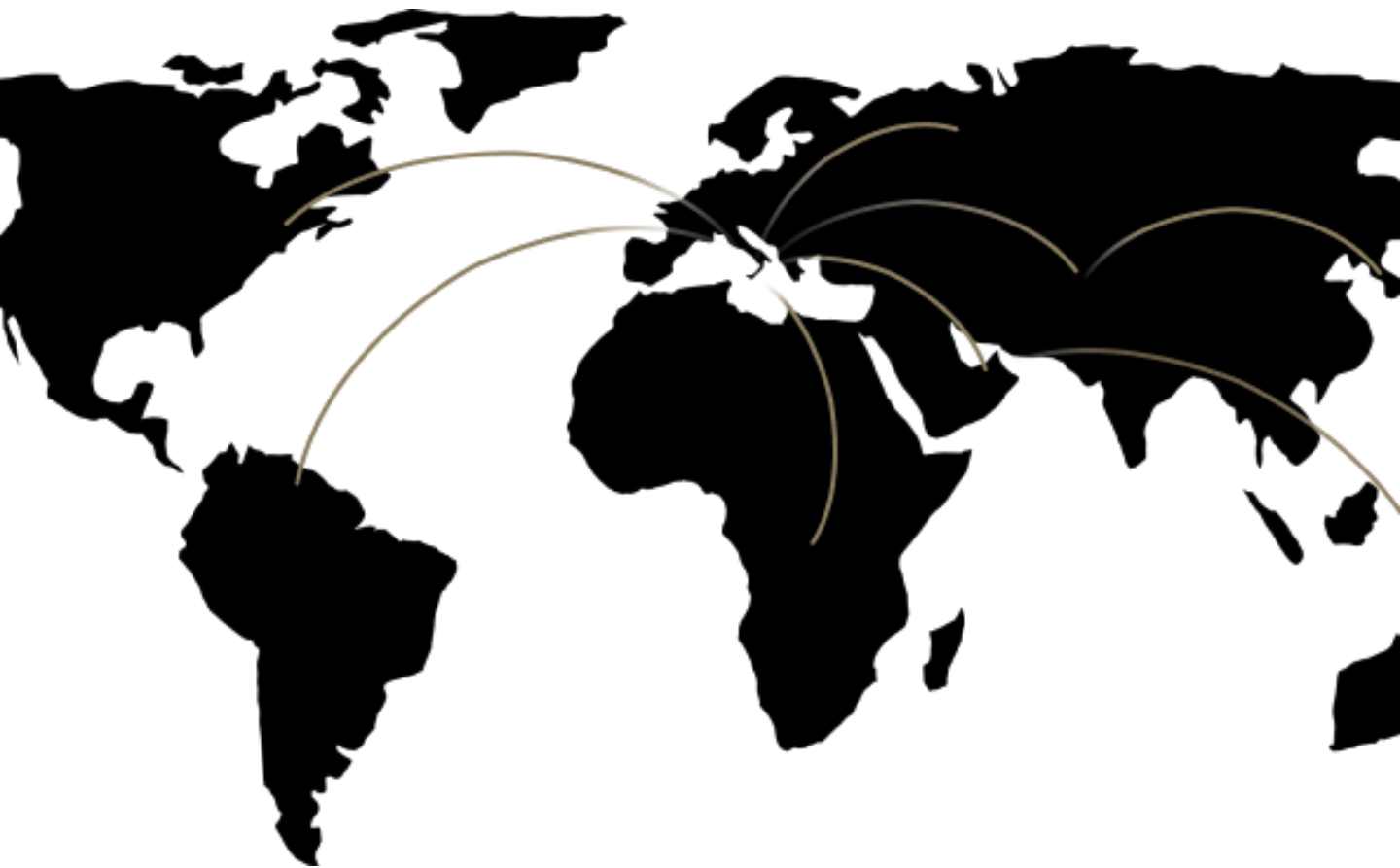
Patent protected Show Case Security System

V1.2 March 2023

Index

▶ **Section contains interactive video.**

Should anything be unclear or didn't receive interactives videos, please do not hesitate to contact MEMO:

📞 +356 21 492 262
✉ support@memo.co.at

Please read this manual carefully before use and do not throw it away!

AIR2OBJECT SECURITY with RFID Label

Various Objects can be presented open – without enclosure and glass around – although secured by unique RFID labels.
This label **(Object Label)** can be placed inside or attached self-adhesive to the object.

Once the object is positioned on the presentation panel, the **Object Label** is constantly read and surveilled to make sure the object with attached label is still in position.

Removing the object from the position will immediately cause a Warning Sound and LED signal. If the product is not put back in position, an Alarm Sound and LED alert is triggered which can only be switched off by the supervisor person by presenting the **Supervisor key**.

To remove the object, the user must present an authorized key at the system Reader **(Access Key fobs)** – then the object can be removed within 5 seconds and can be stay away as long as necessary without triggering any warnings or alarms.

To position the object back to the presentation panel, there is a variable time window to position the object in good place before the alarm is armed again.
A short sound will indicate that the object is secured and alarm is armed again.

Objects can be made from various materials but not metal. To determine if an object can be secured with this RFID technology, a test must be performed prior to public presentation. Examples for objects are Fashion items, collectibles, art and paintings, etc.

This OPEN SECURITY SOLUTION is NOT locking or fixing a presented object, the objects remains completely free to be accessed and experienced by the audience – but the position of presentation is given by the presentation panel - removing without triggering an alarm signal is only possible with authorized key.

Certain design rules must be considered and applied to the show case, please contact MEMO for design support.

AIR2OBJECT

EXTERNAL Sensor Set

Object Label

8

7

8

7

1

6

4

Access Key fob

5

2

3
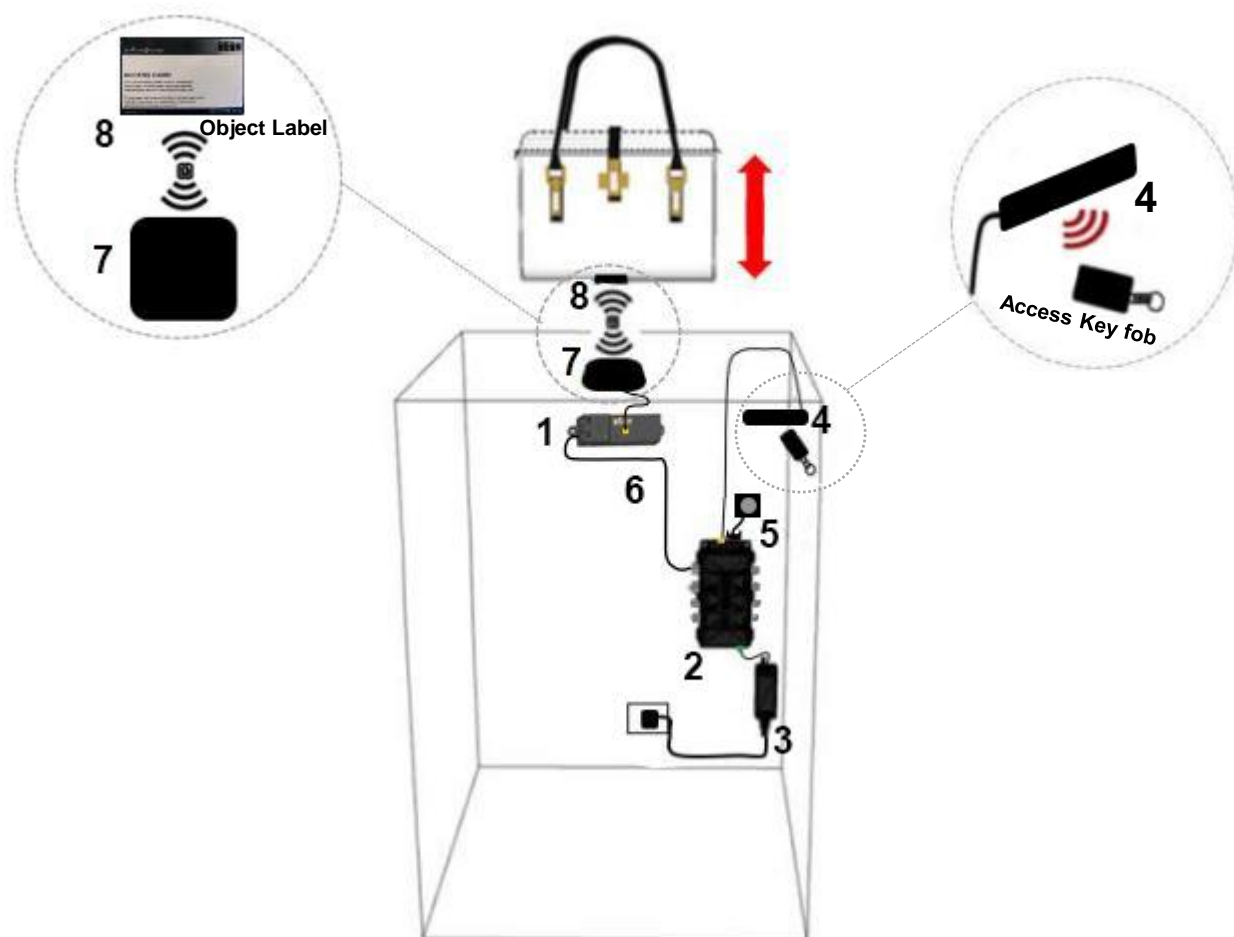
MI-SET1-0001-AIREX, AIR2OBJECT Security External Sensor 3 mts SET
Included:
1. MI-CON-0001E-AIROB, AIR2OBJECT Sensor with External Sensor
6. MI-CAB3-5001-03AIR, Connection Cable Open Object Security 3m
7. MI-ANT1-0002-03AIR, AIR2OBJECT External Sensor 3m

2. MI- CON1-29L8-01D, DEM Controller Level 1 – 1 Rdr – 8Out.
3. MI-L1-PSY5-1040-12, Power Supply 40 W Swiss (TYPE J) Level 1
4. MI-L1-ANT5-0001-03, Reader type V, SLIM, 3m Cable Level 1
5. MI-EXA1-0001-02, External Alarm Buzzer 2 m
8. MI-CKM0-0004-04, Object Label

AIR2OBJECT

EXTERNAL Sensor Set

Connections Overview:

MI-CKM0-0004-04
(Object Label - inside the handbag)

Panel

MI-L1-ANT5-0001-03

MI-EXA1-0001-02

MI-ANT1-0002-03AIR
External Sensor
(behind the panel)

Access Key fob
Function Cards

MI-CON1-29L8-01D

MI-CAB3-5001-03AIR

MI-CON-0001E-AIROB
AIR2OBJECT External Sensor

MI-L1-PSY5-1040-12

AIR2OBJECT

INTERNAL Sensor Set

Object Label

7

1

7

1

6

4

Access Key fob

4

5

2

3
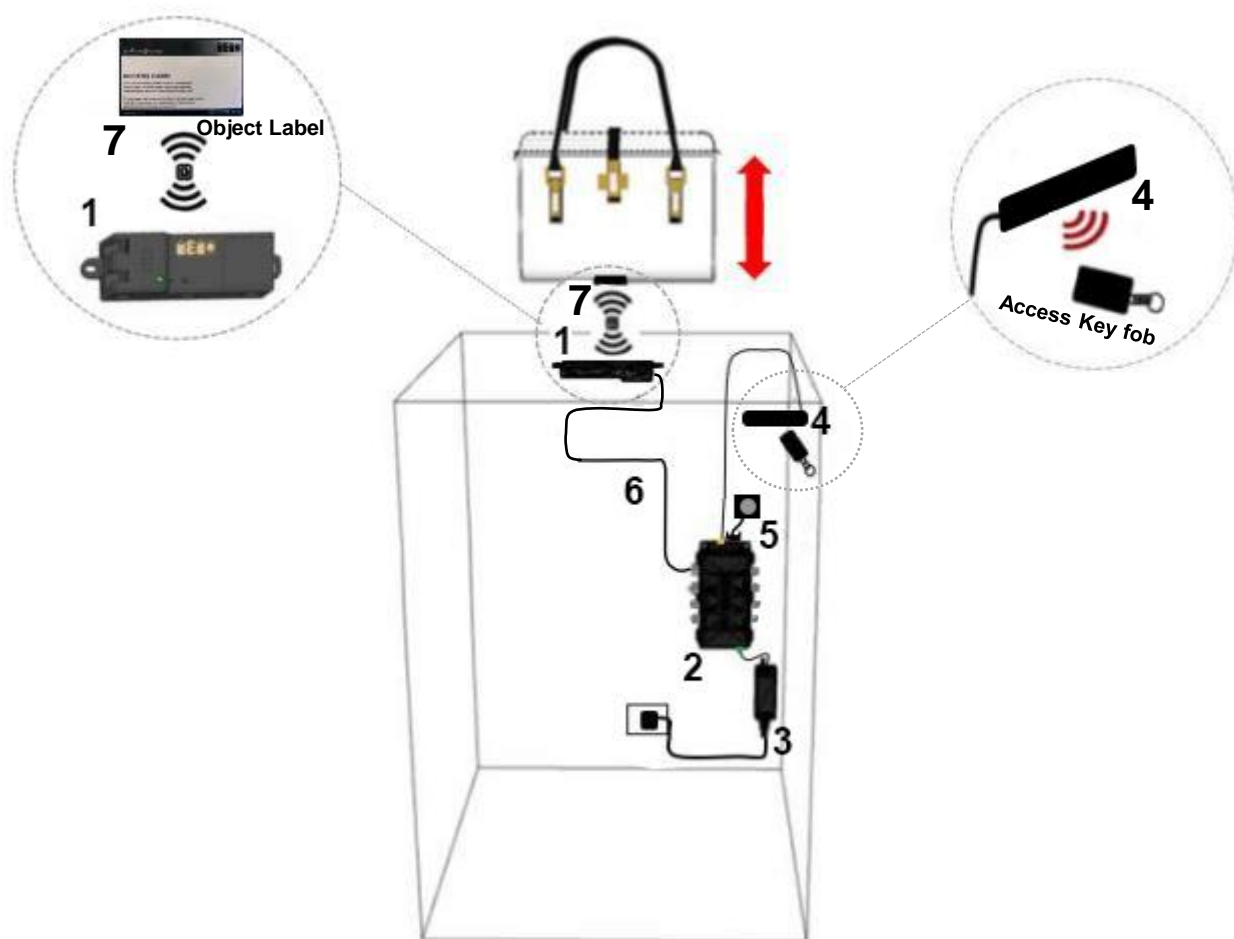
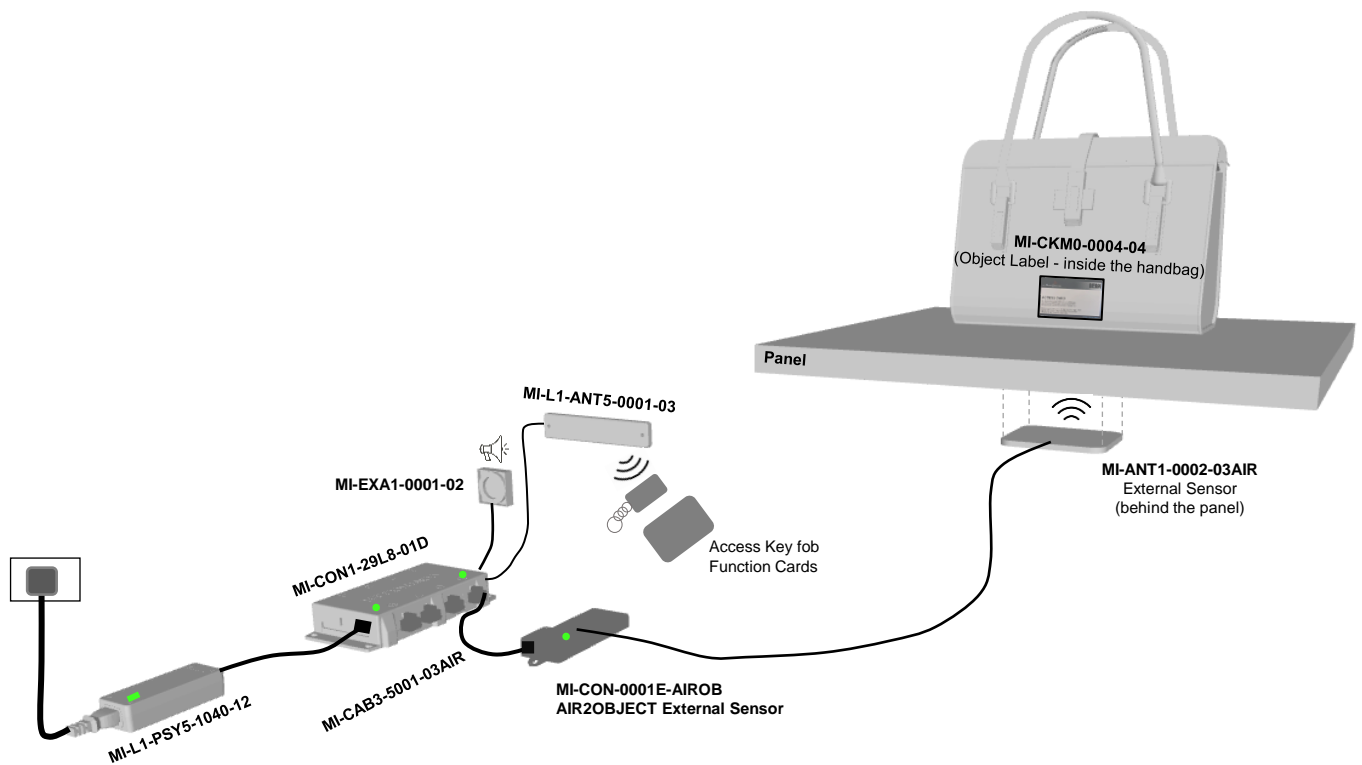**MI-SET1-0001-AIRIN, AIR2OBJECT Security Internal Sensor SET**
Included:
1. MI-CON-0001I-AIROB, AIR2OBJECT Sensor with Internal Sensor
6. MI-CAB3-5001-03AIR, Connection Cable Open Object Security 3m

2. MI- CON1-29L8-01D, DEM Controller Level 1 – 1 Rdr – 8Out.
3. MI-L1-PSY5-1040-12, Power Supply 40 W Swiss (TYPE J) Level 1
4. MI-L1-ANT5-0001-03, Reader type V, SLIM, 3m Cable Level 1
5. MI-EXA1-0001-02, External Alarm Buzzer 2 m
7. MI-CKM0-0004-04, Object Label

AIR2OBJECT

INTERNAL Sensor Set

Connections Overview:

MI-CKM0-0004-04
(Object Label - inside the handbag)

Panel

MI-L1-ANT5-0001-03

MI-EXA1-0001-02

MI-CON1-29L8-01D

AIR2OBJECT Internal Sensor
MI-CON-0001I-AIROB

Access Key fob
Function Cards

MI-L1-PSY5-1040-12

MI-CAB3-5001-03AIR

DAILY OPERATION

AUTHORIZED OBJECT REMOVAL

① Presenting the Access Key Fob at the Reader batch point allows the salesperson to remove the product.

② The LED on the AIR2OBJECT Sensor will blink red and Warning Sound will be activated after the product is out of position for more than 1 second.

③ The LED on the AIR2OBJECT Sensor will change to solid red if the product is still out of position after the timeout has elapsed.

④ Door Open Warning: This OPTION can be activated or disabled, when active a warning sound will start if the salesperson removes the product for longer than the door open warning time (time adjustable in wide range). To reset the door opening timer the salesperson can present the Access Key Fob again at the Reader batch point. .
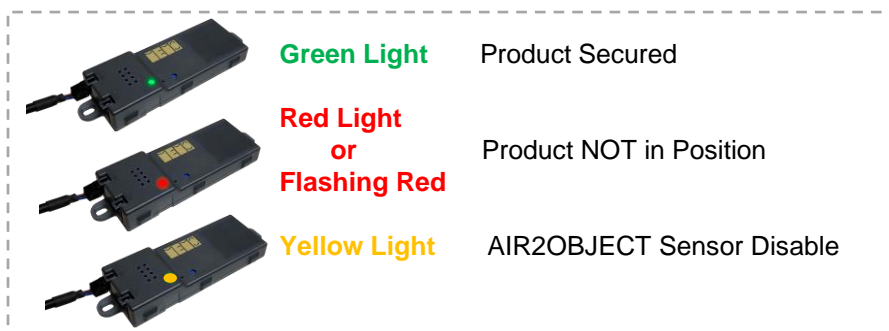
PUTTING THE OBJECT BACK IN PLACE

⑤ After placing the product back in position, the LED of the AIR2OBJECT Sensor will change to solid Green to indicate that the product is secured.

UN-AUTHORIZED OBJECT REMOVAL

⑥ Intrusion Alarm: will be activated if the product is out of range for longer then the set time out.
Stop the Alarm by presenting the Supervisor Card at the Reader batch point.

SPECIFICATION

⑦ Reading Range: depending on the product installation the Object Label can be read up to 10 cm away from surface.
Reading must be evaluated case by case depending on the object.

	Green Light	Product Secured
	Red Light or Flashing Red	Product NOT in Position
	Yellow Light	AIR2OBJECT Sensor Disable

▶ DAILY OPERATION

PART 1

PART 2

CHIP KEY – TYPES & FUNCTIONS

Access Key Fob Presenting the Access Key fob at the DEM Reader V batch point allows the salesperson to remove the product.
-At delivery, these keys are neutral and must be programmed following the described procedure in this document.
-Lost or stolen Chip Keys must be reported to the management immediately to avoid possible misuse!

Object Label is constantly read and surveilled to make sure the object with attached label is still in position.
-This label can be placed inside the object or attached self-adhesive to the object.

Master Card 1 identify the system owner, and they are required for any administrative operation such as setting changes or key programming.

Programming Card is used for convenient programming of Access Key fobs and Object Label via DEM Reader V or AIR2OBJECT External Sensor.

Erasing Card is used to ERASE ALL keys in one go conveniently through the Reader and External Sensor before programmed !
Keys must be programmed again to resume normal operation!
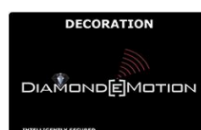
Decoration Card allows for convenient show case decoration without Warning Sounds and Door Open Limitations
We recommend to use of this card only outside normal shop opening times.
Access should be granted only to authorized decoration staff.

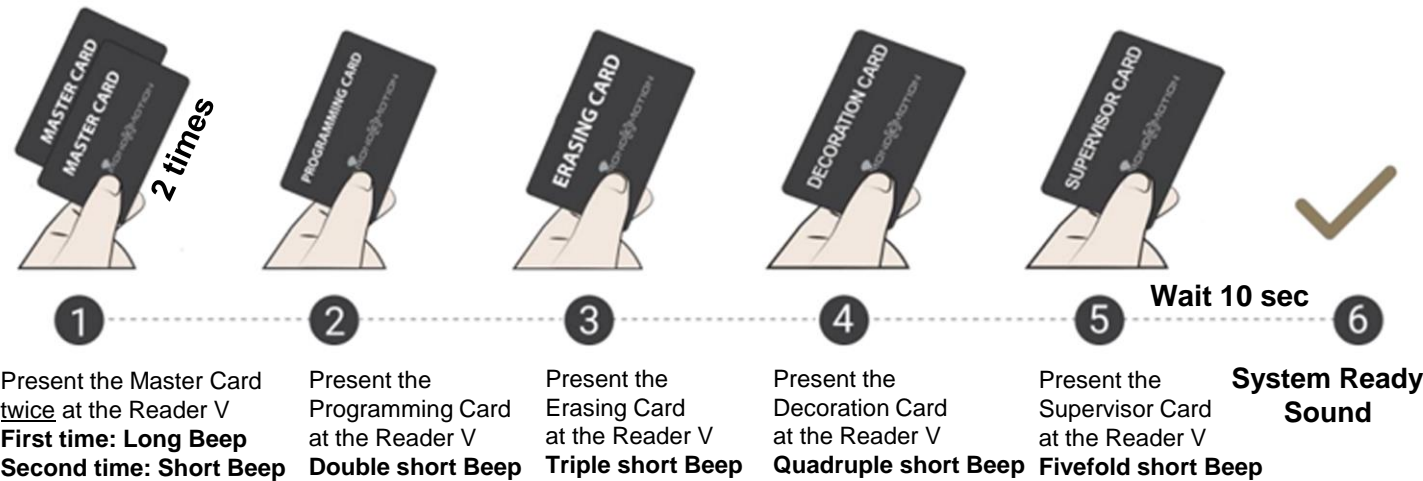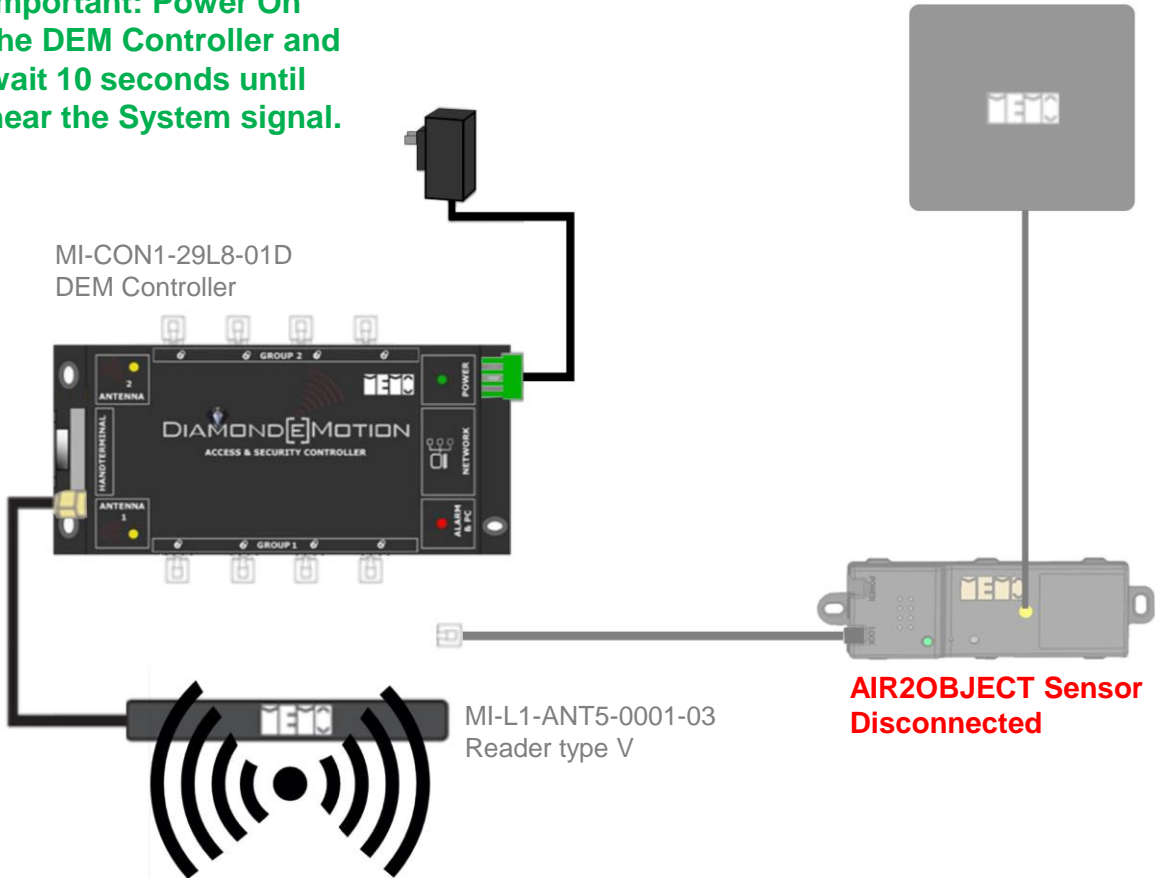**Supervisor Cards** are used by the Shop Supervisor to stop Intrusion Alarms.

Configuration Card allow the configuration of all important Settings on controllers.

ATTENTION: Make sure to keep the Cards in a safe place to avoid un-authorized use. MEMO recommends that no Key Cards and fobs are taken outside the shop by employees.

STEP 1 – DEM Controller
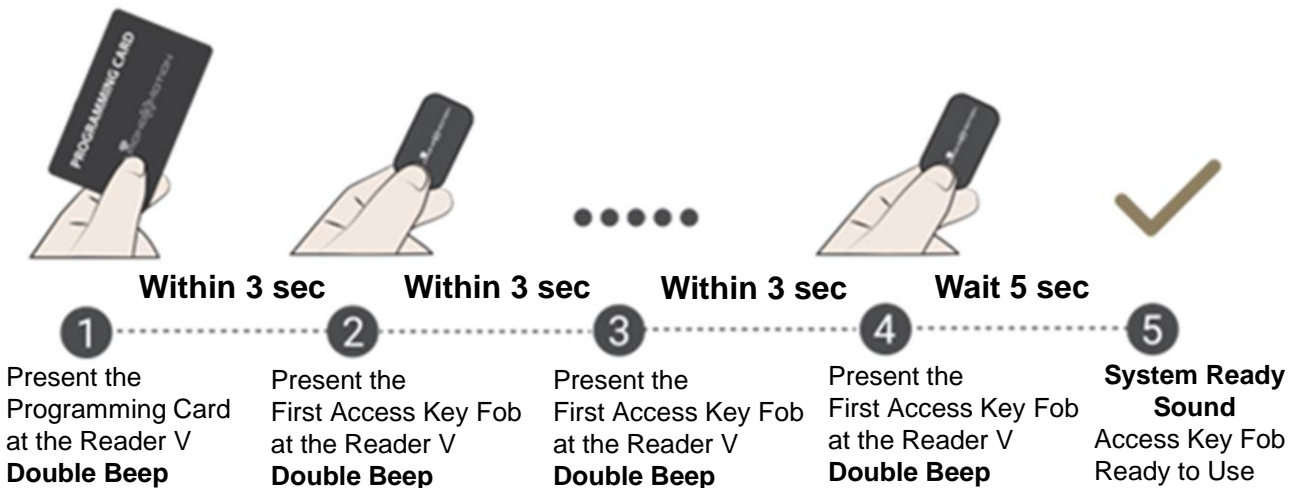## PROGRAMMING SPECIAL FUNCTIONS CARDS

Important: Power On the DEM Controller and wait 10 seconds until hear the System signal.

MI-CON1-29L8-01D
DEM Controller

DIAMOND[E]MOTION
ACCESS & SECURITY CONTROLLER

AIR2OBJECT Sensor Disconnected

MI-L1-ANT5-0001-03
Reader type V

2 times

Wait 10 sec

1	2	3	4	5	6
Present the Master Card <u>twice</u> at the Reader V **First time: Long Beep Second time: Short Beep**	Present the Programming Card at the Reader V **Double short Beep**	Present the Erasing Card at the Reader V **Triple short Beep**	Present the Decoration Card at the Reader V **Quadruple short Beep**	Present the Supervisor Card at the Reader V **Fivefold short Beep**	**System Ready Sound**

STEP 2 – DEM Controller
PROGRAMMING ACCESS KEY FOBS

If **Access Key Fobs** can not be presented at the **DEM Reader V** within 3 seconds, repeat the process from Step 1.
Different sound signals give feedback to help you recognizing the status of your operation.

MI-CON1-29L8-01D
DEM Controller

MI-L1-ANT5-0001-03
Reader type V

AIR2OBJECT Sensor Disconnected

Within 3 sec	**Within 3 sec**	**Within 3 sec**	**Wait 5 sec**	
1	**2**	**3**	**4**	**5**
Present the Programming Card at the Reader V **Double Beep**	Present the First Access Key Fob at the Reader V **Double Beep**	Present the First Access Key Fob at the Reader V **Double Beep**	Present the First Access Key Fob at the Reader V **Double Beep**	**System Ready Sound** Access Key Fob Ready to Use
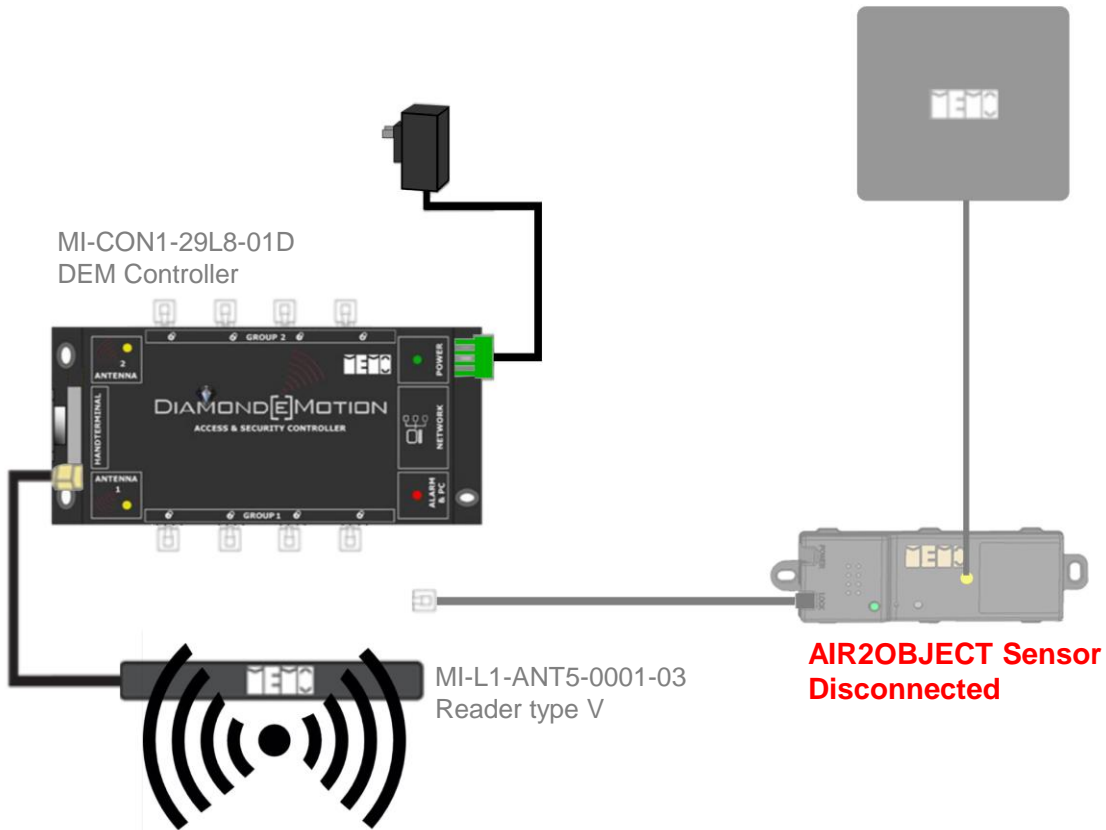
STEP 1 – DEM Controller
PROGRAMMING SPECIAL FUNCTIONS CARDS
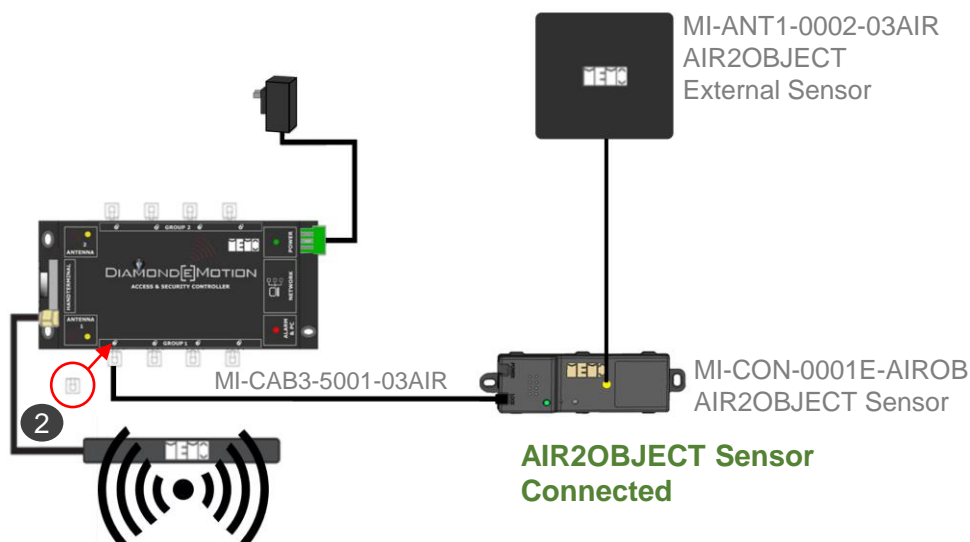
STEP 2 – DEM Controller
PROGRAMMING ACCESS KEY FOBS

STEP 3
CONNECT AIR2OBJECT Sensor to DEM Controller

1) Present the Decoration Card at the Reader V DEM Controller.

MI-CON1-29L8-01D
DEM Controller

MI-L1-ANT5-0001-03
Reader type V

DECORATION CARD

❶
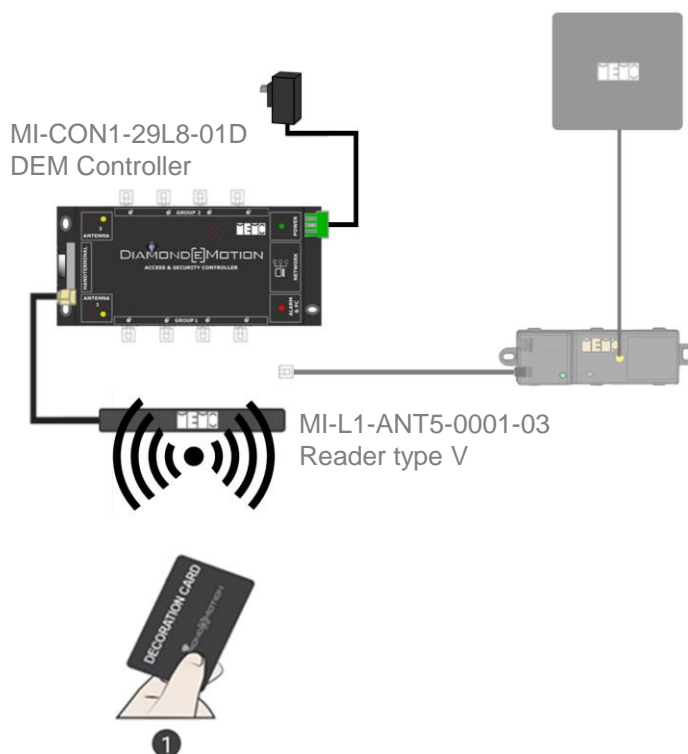
2) Remove the shortcut Connector (white Connector) from first output of DEM Controller and Connect the AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

MI-CAB3-5001-03AIR

MI-CON-0001E-AIROB
AIR2OBJECT Sensor
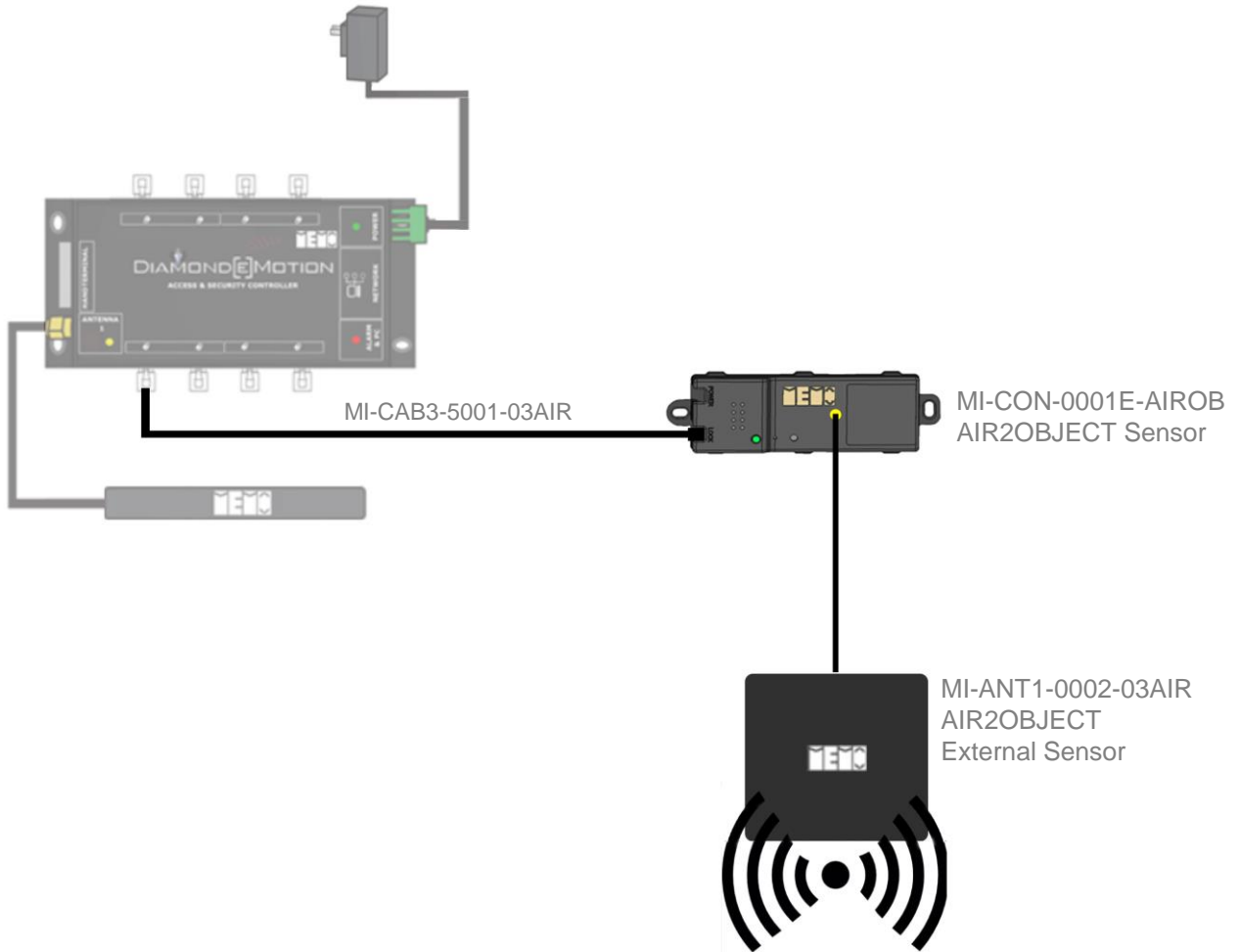
AIR2OBJECT Sensor Connected

❷

STEP 3
CONNECT AIR2OBJECT Sensor to DEM Controller

STEP 4 – AIR2OBJECT Sensor
PROGRAMMING SPECIAL FUNCTIONS CARDS

MI-CAB3-5001-03AIR

MI-CON-0001E-AIROB
AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

2 times

Wait 10 sec

① ② ③ ④

Present the Master Card
<u>twice</u> at AIR2OBJECT
External Sensor
First time: Long Beep
Second time: Short Beep

Present the
Programming Card
at the AIR2OBJECT
External Sensor
Double short Beep

Present the
Erasing Card
at the AIR2OBJECT
External Sensor
Triple short Beep

**System Ready
Sound**

STEP 5 – AIR2OBJECT Sensor
PROGRAMMING OBJECT LABEL

If **Object Label** can not be presented at the **AIR2OBJECT External Sensor** within 3 seconds, repeat the process from Step 1.
Different sound signals give feedback to help you recognizing the status of your operation.

MI-CAB3-5001-03AIR

MI-CON-0001E-AIROB
AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

Within 3 sec	**Within 3 sec**	**Within 3 sec**	**Wait 10 sec**	
1	**2**	**3**	**4**	**5**
Present the Programming Card at the AIR2OBJECT External Sensor **Double Beep**	Present the First Object Label at the AIR2OBJECT External Sensor **Double Beep**	Present the Second Object Label at the AIR2OBJECT External Sensor **Double Beep**	Present the Last Object Label at the AIR2OBJECT External Sensor **Double Beep**	**System Ready Sound** Object Label Ready to Use
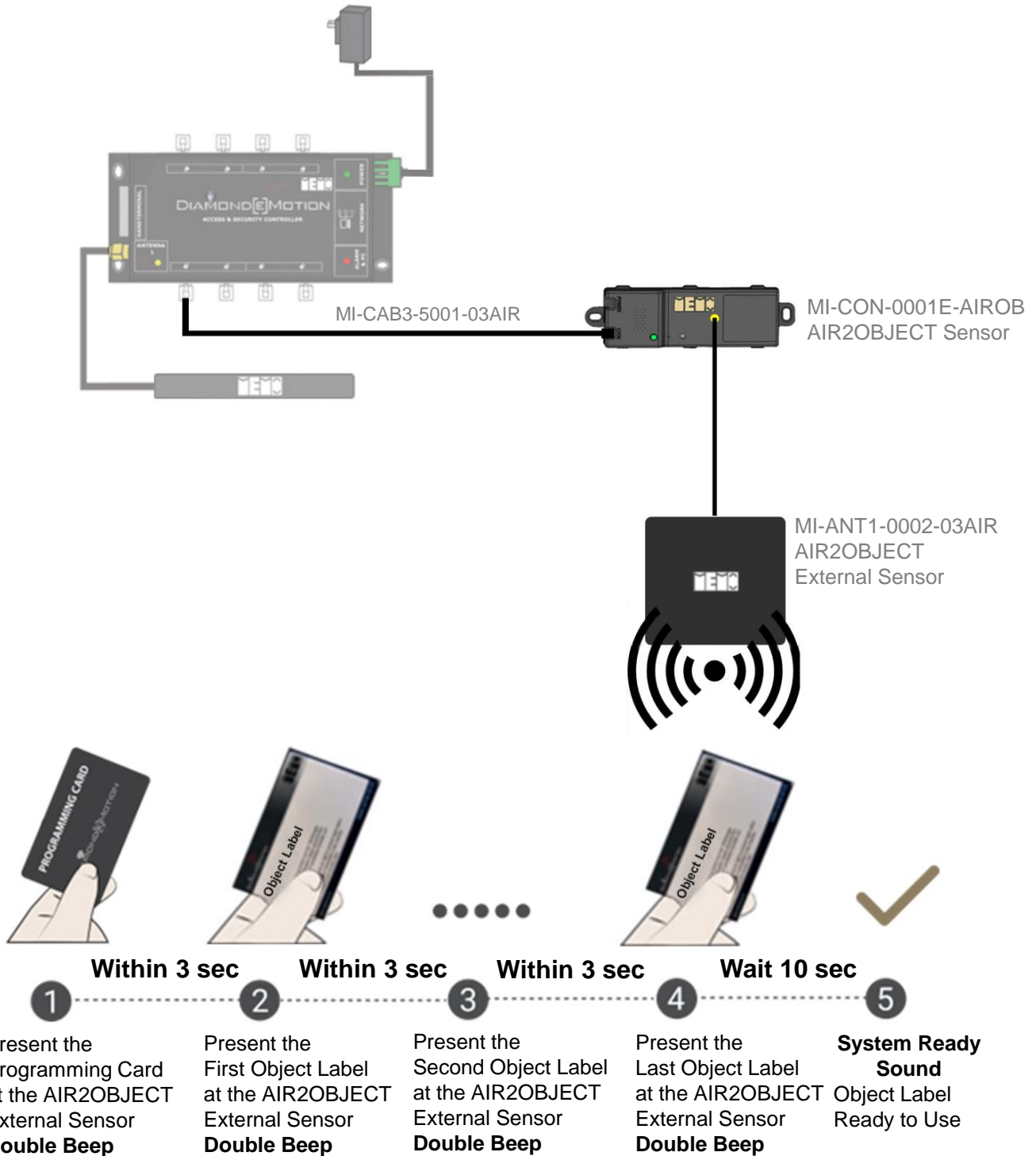
STEP 4 – AIR2OBJECT Sensor
PROGRAMMING SPECIAL FUNCTIONS CARDS

STEP 5 – AIR2OBJECT Sensor
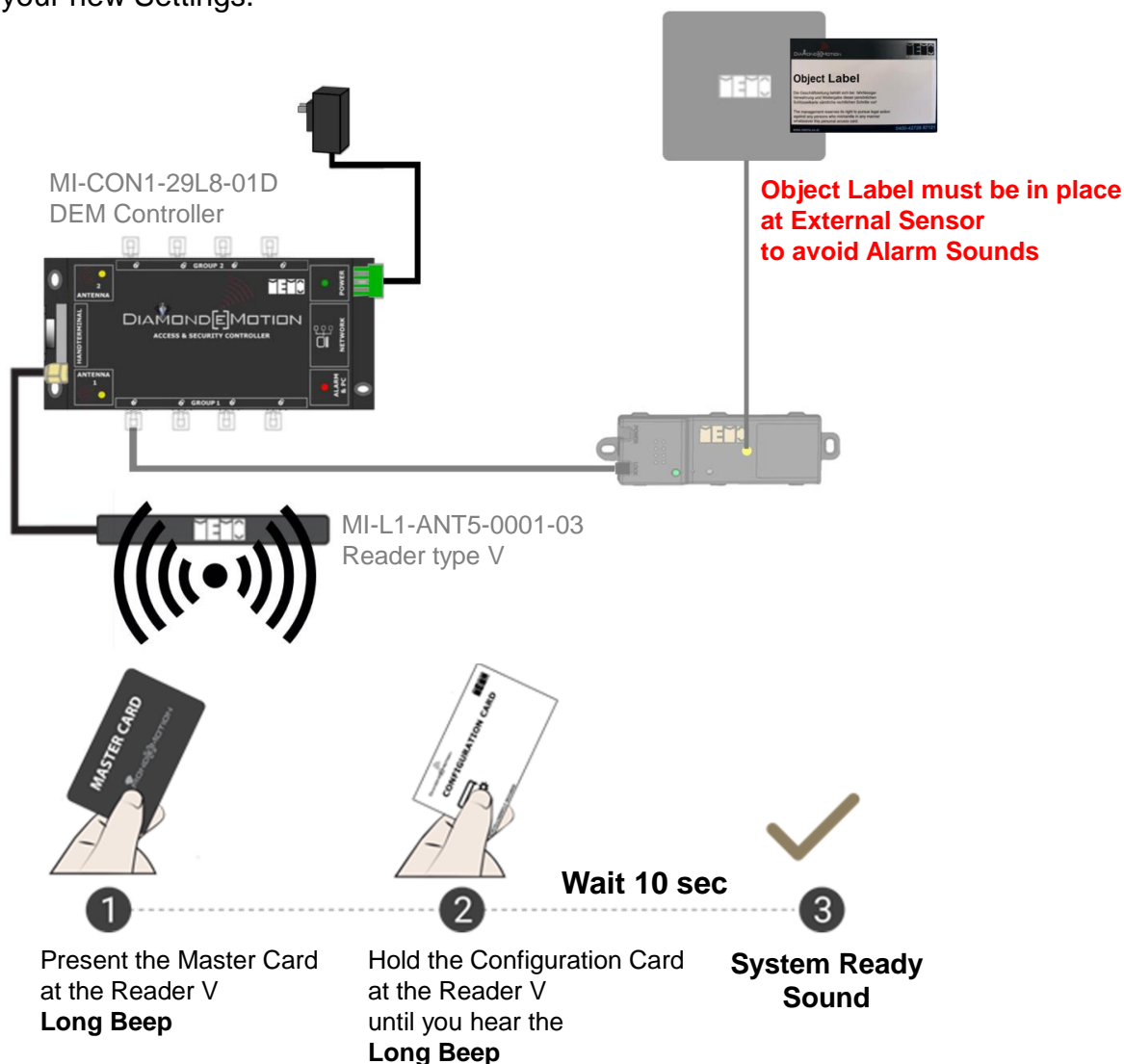**PROGRAMMING OBJECT LABEL**

STEP 6 CONFIGURE SYSTEM by DEM Controller

All settings can be easily changed by contacting MEMO´s technical support.
When you want to change functions of your system then contact MEMO to perform changes either remotely or by sending a **Configuration Card.**

Card Function	Selectable Interval	Default Settings
Security Tone	Enable - Disable	Disabled
Object Removed Warning	30 sec. / 60 sec. / 120 sec. / 10 min.	30 sec.
Intrusion Alarm Delay	1 sec. / 2sec. / 3 sec. / 5 sec.	2 sec.

Table 1: Overview of some default settings in a MEMO System

Once you have received a Configuration Card, follow the graphic on this page, to update your system with your new Settings.
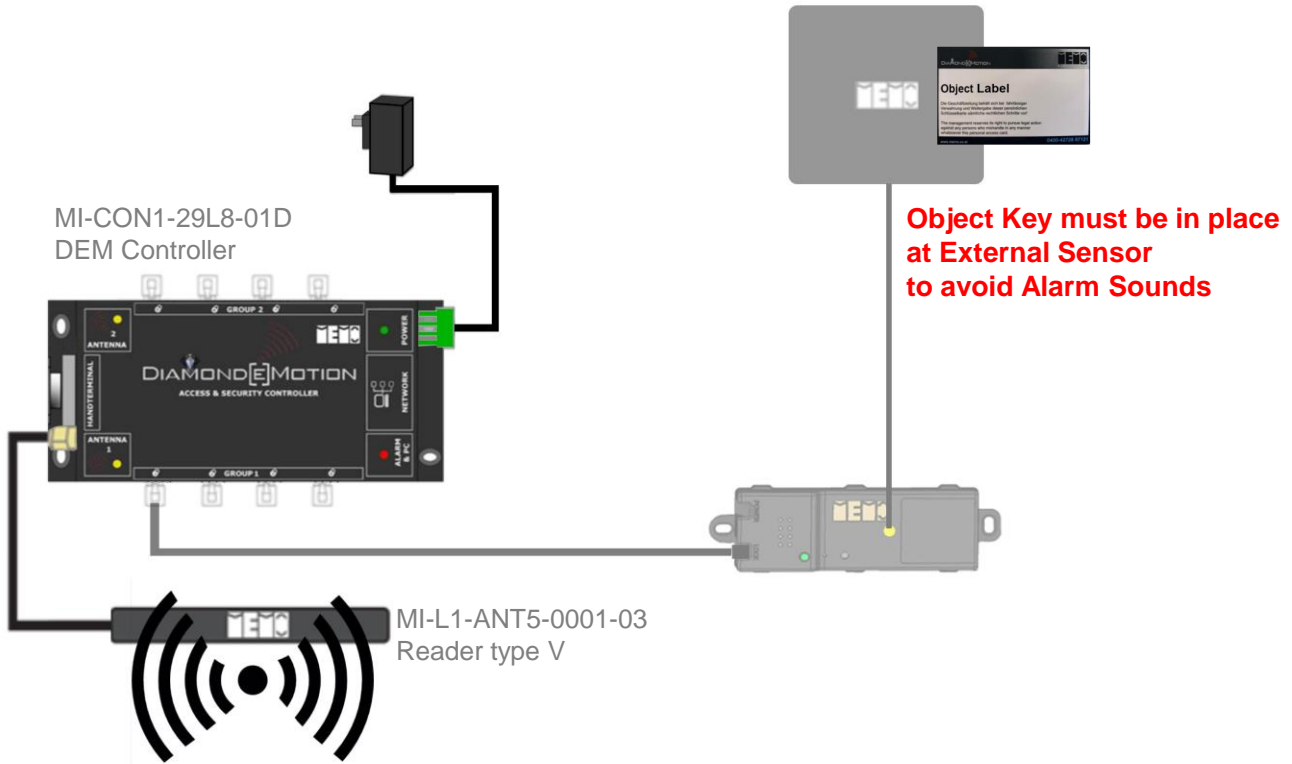

Object Label must be in place at External Sensor to avoid Alarm Sounds

MI-CON1-29L8-01D
DEM Controller

MI-L1-ANT5-0001-03
Reader type V

Wait 10 sec

1 — Present the Master Card at the Reader V **Long Beep**

2 — Hold the Configuration Card at the Reader V until you hear the **Long Beep**

3 — **System Ready Sound**

STEP 6 CONFIGURE SYSTEM by DEM Controller

STEP 7 ERASING ALL KEYS – DEM Controller

Erasing Card is used to erase ALL keys in one go conveniently through the DEM Reader V before programmed !
Keys must be programmed again to resume normal operation.

**Object Key must be in place
at External Sensor
to avoid Alarm Sounds**

MI-CON1-29L8-01D
DEM Controller

MI-L1-ANT5-0001-03
Reader type V

Wait 5 sec

1 Present the Erasing Card
at the Reader V
Long Beep

2 **All Cards and Keys
Are erased
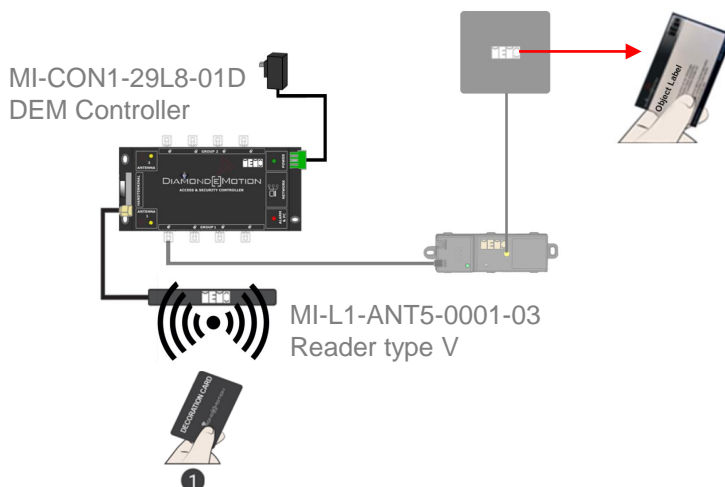Programmed before
On DEM Controller**

3 System Ready
Sound

STEP 8 ERASING ALL KEYS – AIR2OBJECT Sensor

Erasing Card is used to erase ALL keys in one go conveniently through the AIR2OBJECT External Sensor before programmed !
Keys must be programmed again to resume normal operation**.**

1) Present the Decoration Card at the Reader V DEM Controller and remove the Object Label from the External Sensor.

MI-CON1-29L8-01D
DEM Controller

Object Label

MI-L1-ANT5-0001-03
Reader type V

❶

2) Present the Erasing Card at the AIR2OBJECT External Sensor

MI-CAB3-5001-03AIR

MI-CON-0001E-AIROB
AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

Wait 5 sec

❷
Present the Erasing Card
at AIR2OBJECT
External Sensor
Long Beep

❸
**All Cards and Keys
Are erased
Programmed before
On AIR2OBJECT Sensor**

❹
**System Ready
Sound**
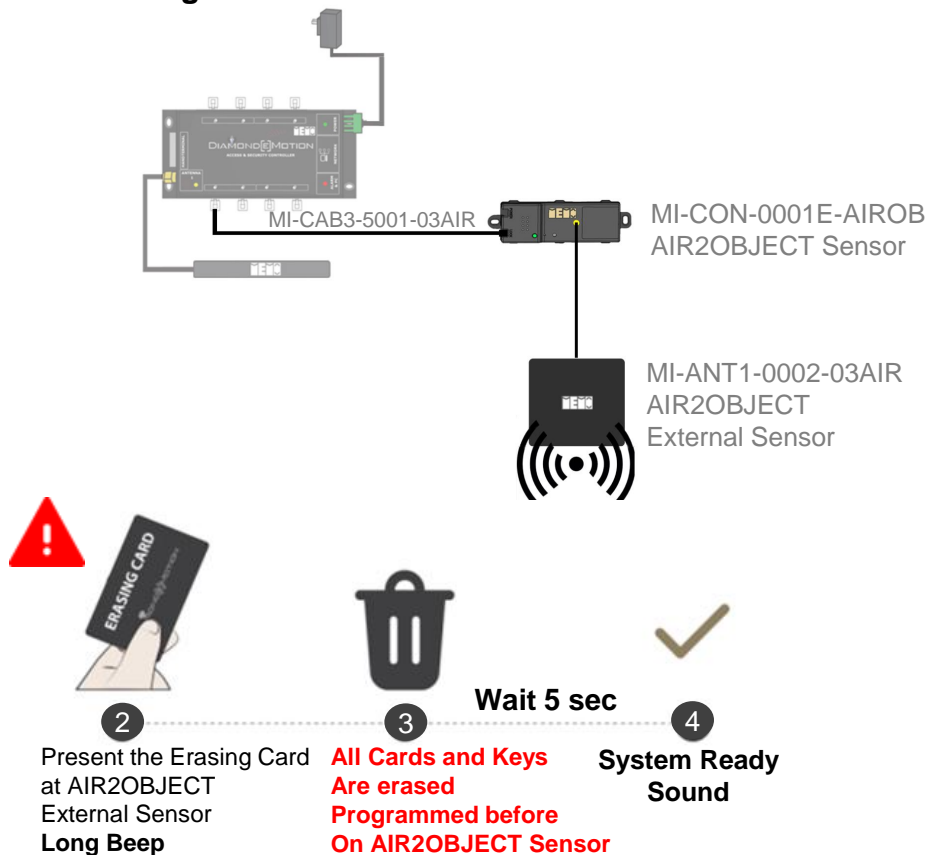
STEP 7 ERASING ALL KEYS – DEM Controller
STEP 8 ERASING ALL KEYS – AIR2OBJECT Sensor

STEP 9 AIR2OBJECT Sensor *Disable - Enable*

Card Function	Selectable Interval	Default Settings
AIR2OBJECT Sensor	Enable - Disable	Enabled

Table 1: Overview of some default settings in a MEMO System

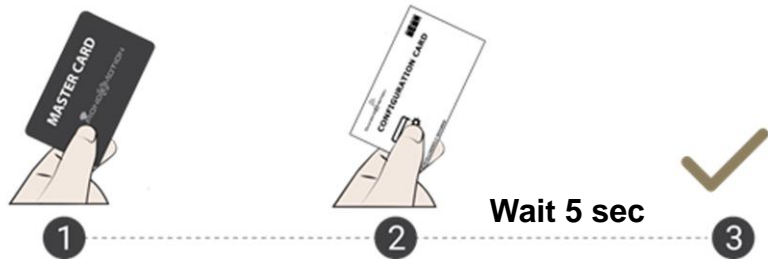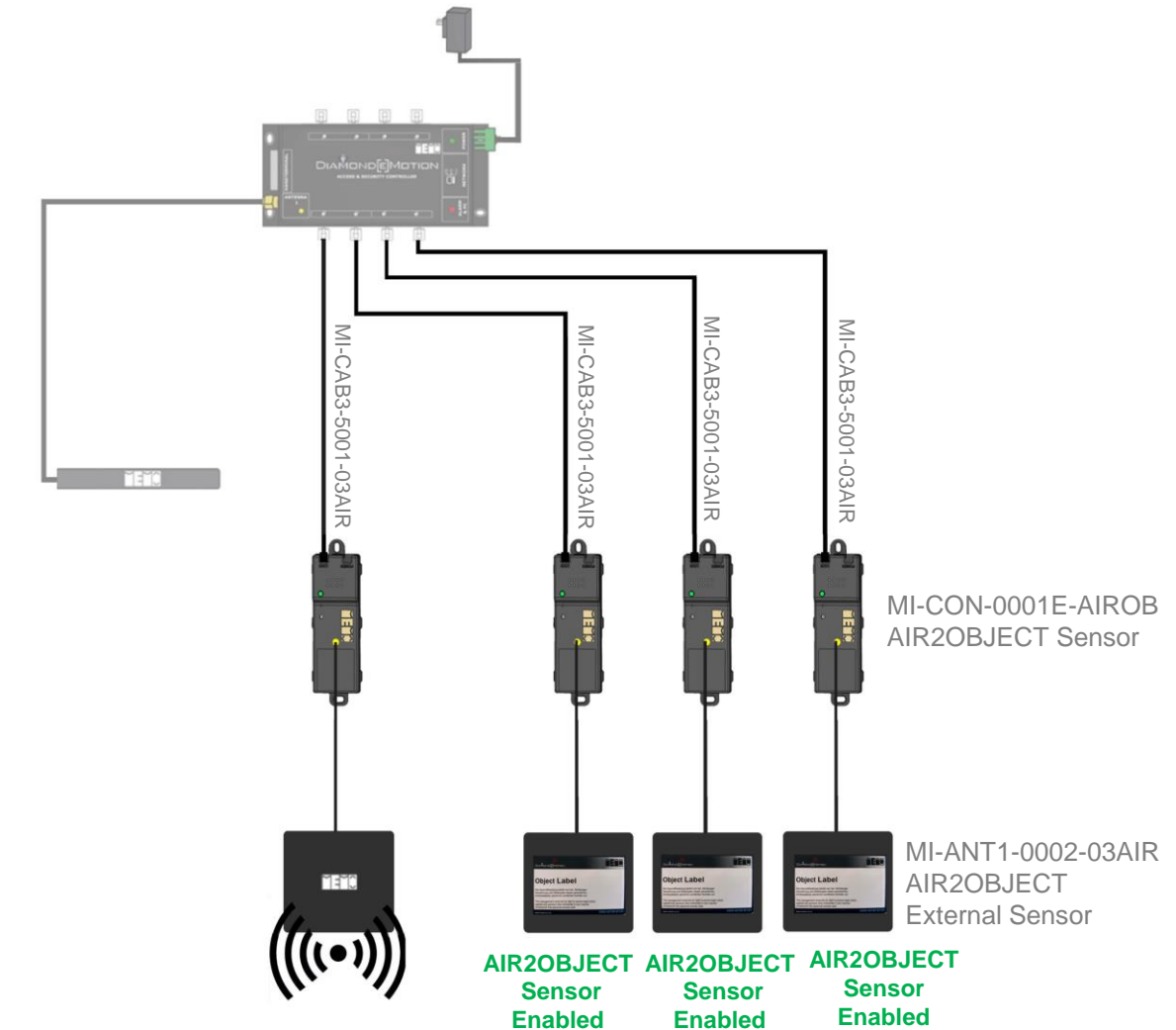To Enable or Disable the AIR2OBJECT Sensor, follow the graphics on this page:

1) Present the Decoration Card at the Reader V DEM Controller and then remove the Object Label from the AIR2OBJECT External Sensor which you want to Disable.

MI-CON1-29L8-01D
DEM Controller

MI-L1-ANT5-0001-03
Reader type V

AIR2OBJECT Sensor Enabled **AIR2OBJECT Sensor Enabled** **AIR2OBJECT Sensor Enabled**
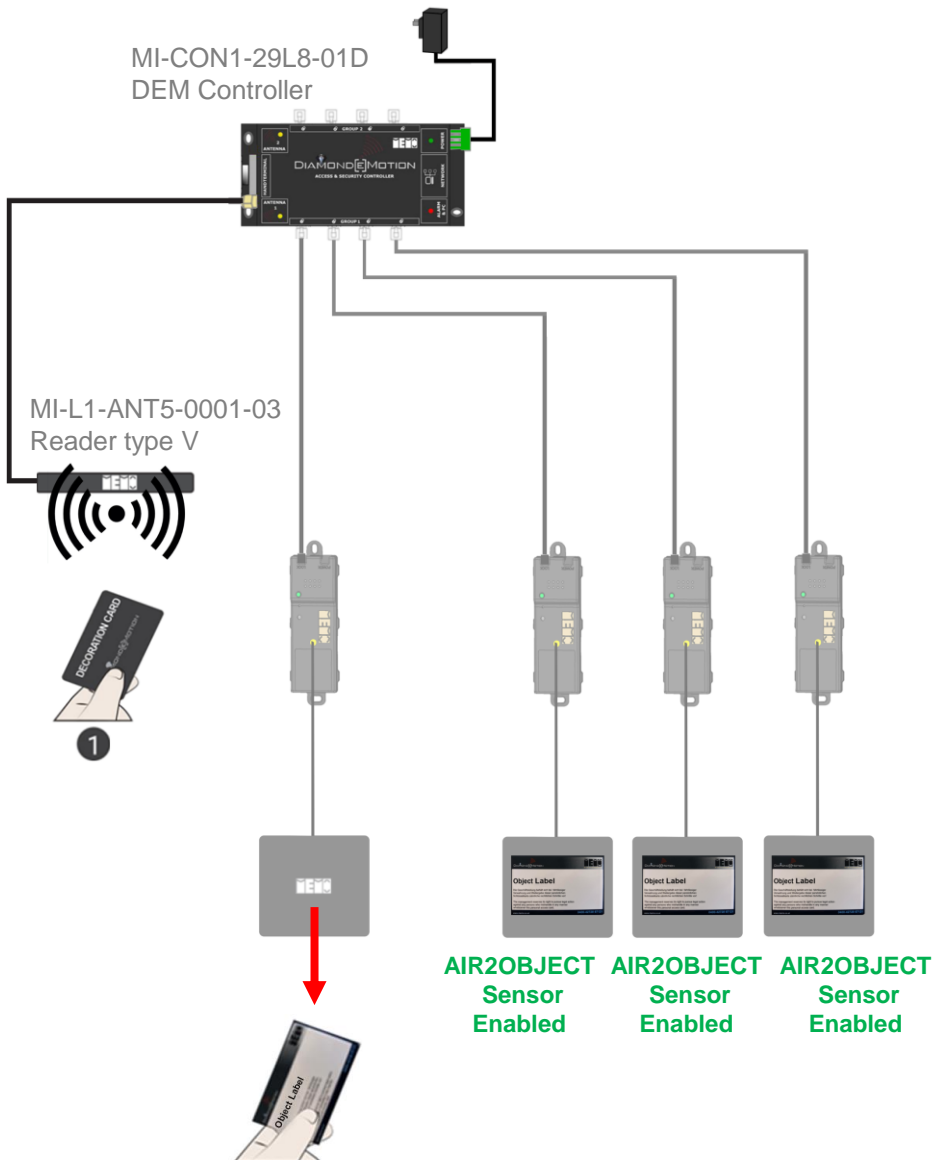
STEP 9 AIR2OBJECT Sensor *Disable*

2) Present the Master Card at the AIR2OBJECT External Sensor, followed by Configuration Card (AIR2OBJECT Sensor Disable) to deactivate the sensor.

MI-CON-0001E-AIROB
AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

AIR2OBJECT Sensor Enabled   **AIR2OBJECT Sensor Enabled**   **AIR2OBJECT Sensor Enabled**

MI-CAB3-5001-03AIR

Wait 5 sec

① Present the Master Card at the AIR2OBJECT External Sensor **Long Beep**

② Hold the Configuration Card at the AIR2OBJECT External Sensor **Long Beep**

③ **System Ready Sound AIR2OBJECT Sensor deactivated**

STEP 9 AIR2OBJECT Sensor *Disable*

3) Test : Present the Object Label at the Disabled AIR2OBJECT Sensor …
A rejection will sound every 3 seconds and yellow light will appear to indicate that the AIR2OBJECT Sensor is deactivated.

MI-CAB3-5001-03AIR

MI-CON-0001E-AIROB
AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

AIR2OBJECT Sensor Disabled

AIR2OBJECT Sensor Enabled

AIR2OBJECT Sensor Enabled

AIR2OBJECT Sensor Enabled

Yellow Light   AIR2OBJECT Sensor Disable
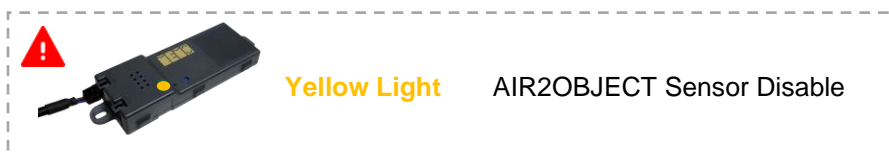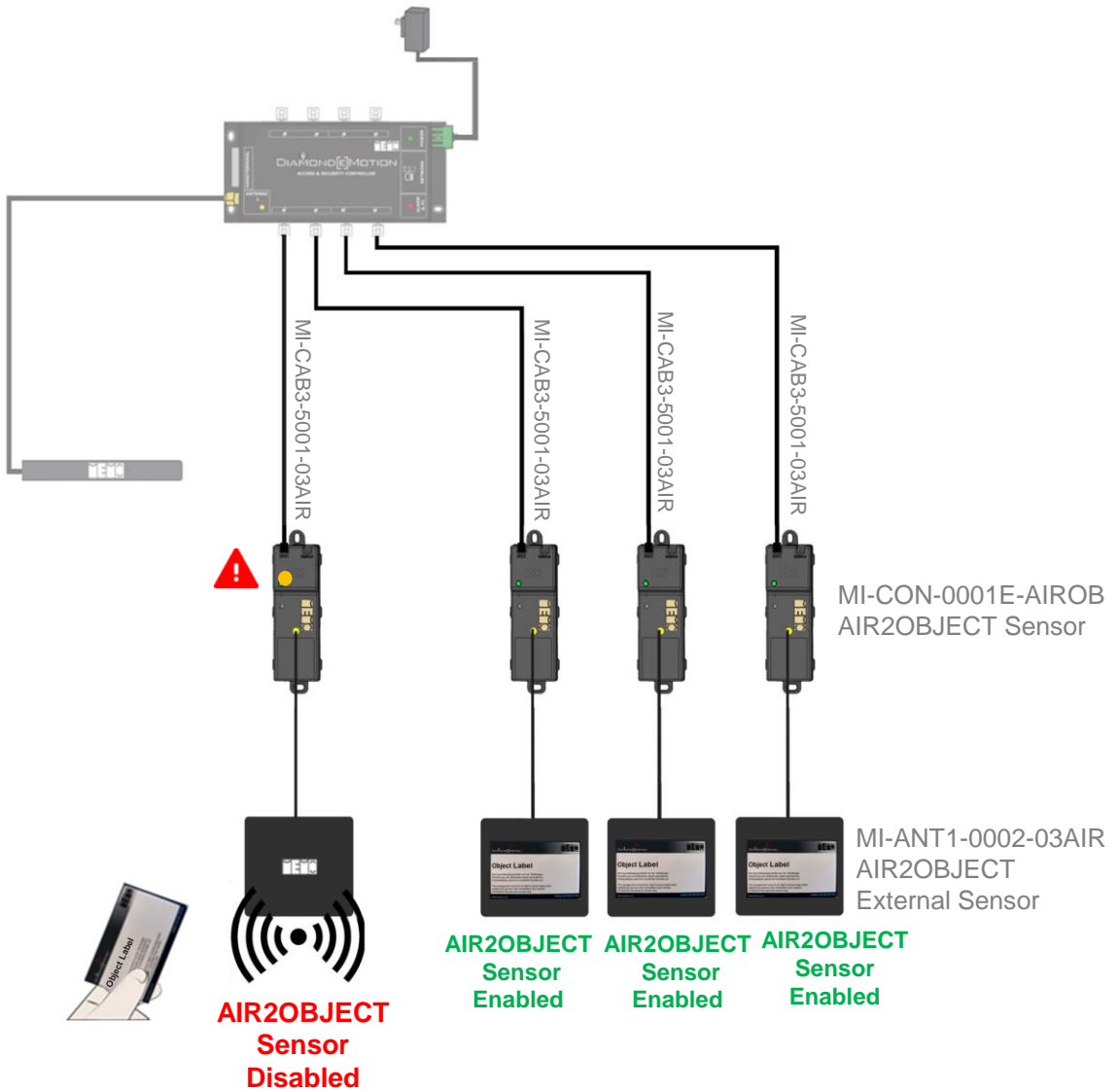
STEP 9 AIR2OBJECT Sensor *Enable*

> **To reactivated the AIR2OBJECT Sensor, repeat the same steps using the Configuration Card (AIR2OBJECT Sensor Enable) to return to its default setting.**

MI-CON-0001E-AIROB
AIR2OBJECT Sensor

MI-ANT1-0002-03AIR
AIR2OBJECT
External Sensor

AIR2OBJECT Sensor Enabled   **AIR2OBJECT Sensor Enabled**   **AIR2OBJECT Sensor Enabled**

Wait 5 sec

① Present the Master Card at the AIR2OBJECT External Sensor **Long Beep**

② Present the Configuration Card at the AIR2OBJECT External Sensor **Long Beep**

③ Place the Object Label at the AIR2OBJECT External Sensor. ⚠ Not presenting the Object Label after the Configuration Card will result in an Intrusion Alarm

④ **System ReadySound AIR2OBJECT Sensor reactivated**

STEP 9 AIR2OBJECT Sensor *Disable - Enable*