

# IR-62

## EXPLOSION PROOF SUBSTATION

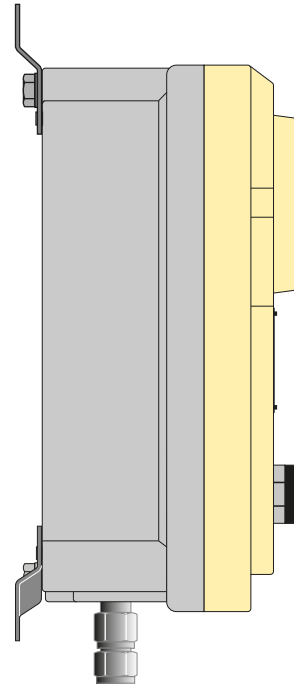
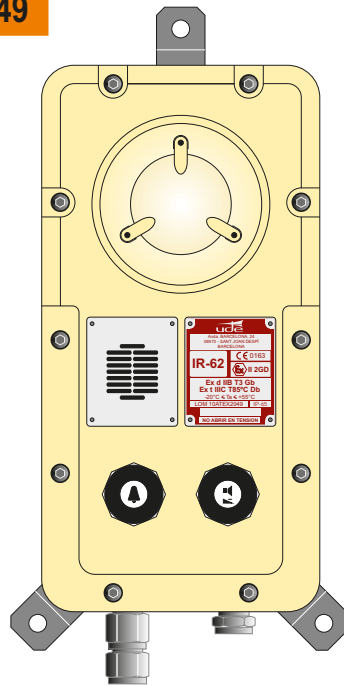


II 2GD  
Ex d IIB T3 Gb  
Ex t IIIC T85 °C Db  
-20 °C ≤ Ta ≤ +55°C

Certificate: LOM 10ATEX2049



## INSTRUCTIONS MANUAL



### WARNING

1. Safety rules according to the legal requirements and standards in each country should be taken into consideration during the installation of the substation.
2. As a common rule, power supply connections should be limited to hooking the intercom system, when all its explosion proof substations are properly connected and all its enclosures closed.
3. When the interphone system is not powered during an installation or maintenance process, necessary precautions should be taken to avoid confusions and an accidental starting up of the unit.
4. The explosion proof IR-62 is classified as:



II 2GD  
Ex d IIB T3 Gb  
Ex t IIIC T85 °C Db  
-20 °C ≤ Ta ≤ +55°C

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Surface temperature mark "T85°C" is applicable for areas with combustible dusts but without gaz.

Make sure it is appropriated to be used with the group of gases as well as in the zone where it will be installed.



EQUIPOS Y SISTEMAS MEGAFONÍA / INTERCOM • PUBLIC ADDRESS SYSTEMS

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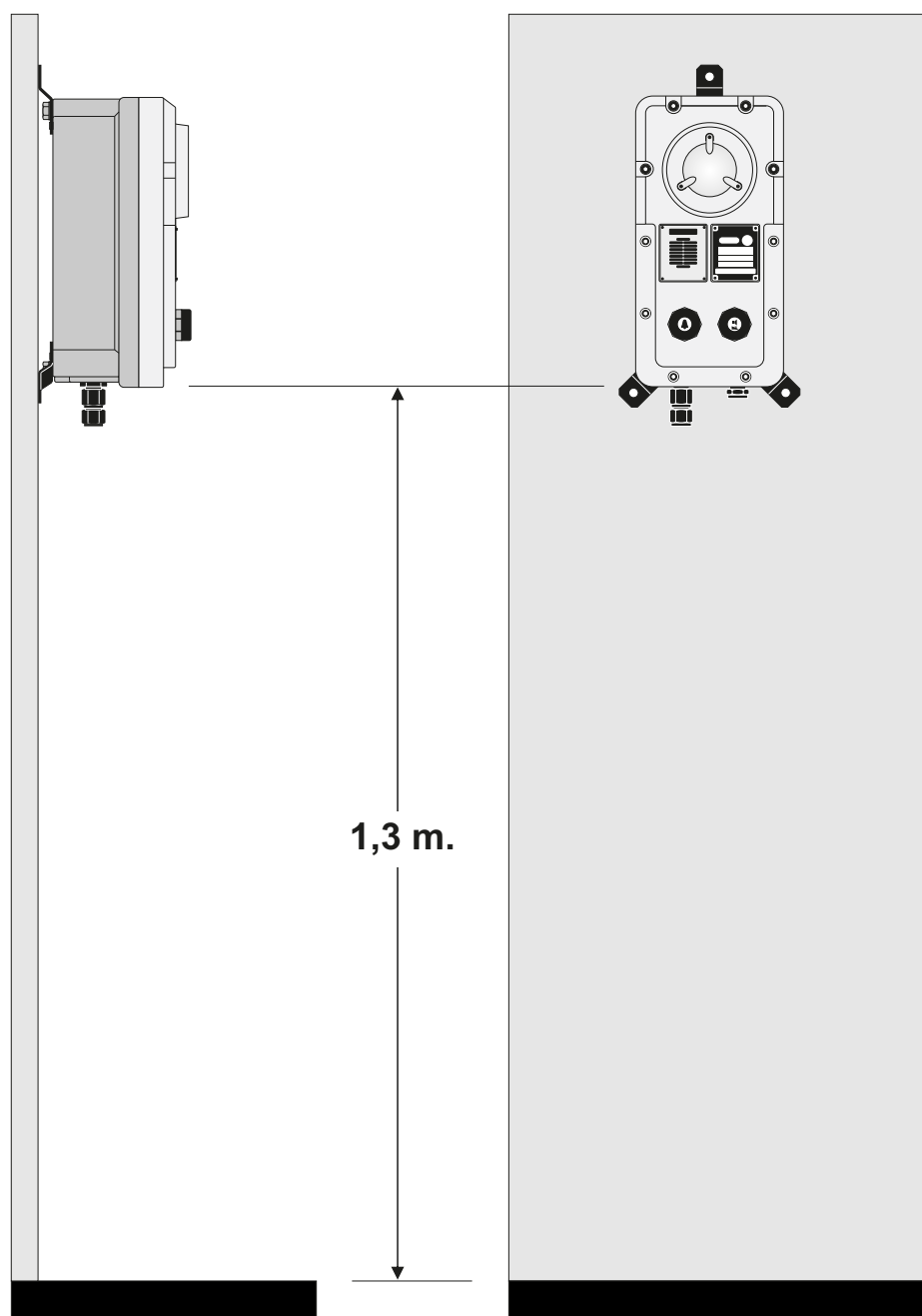


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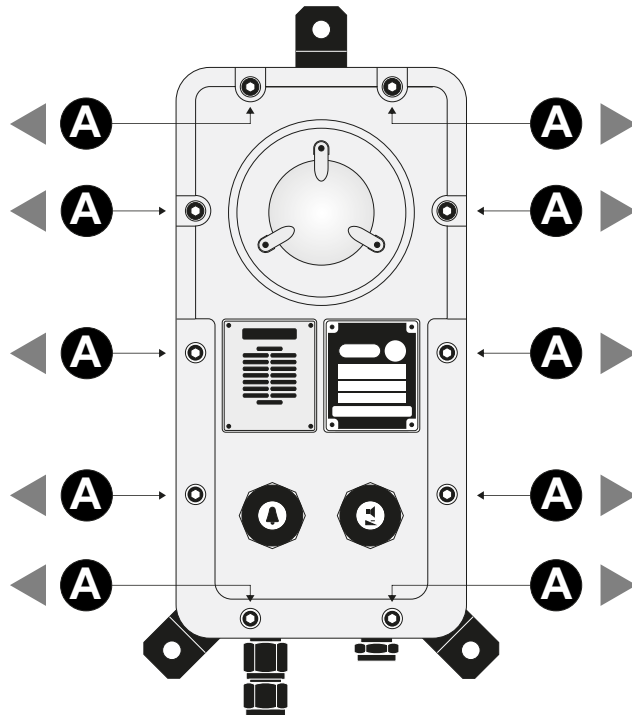
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**CONTENTS****1. Installation****2. Operation****3. Maintenance****1.- INSTALLATION**

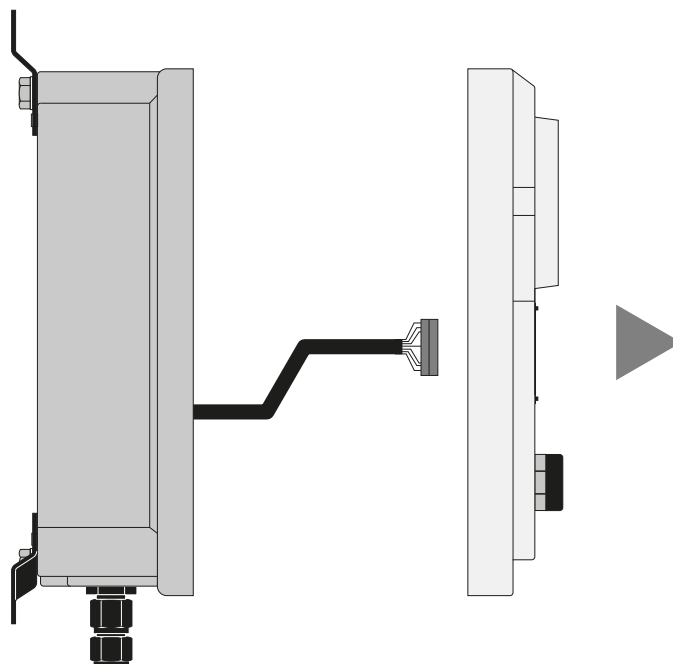
1.1- Fix the intercom substation IR-62 using the brackets to an approximate height of 1,3 m counting from its bottom to the floor level.



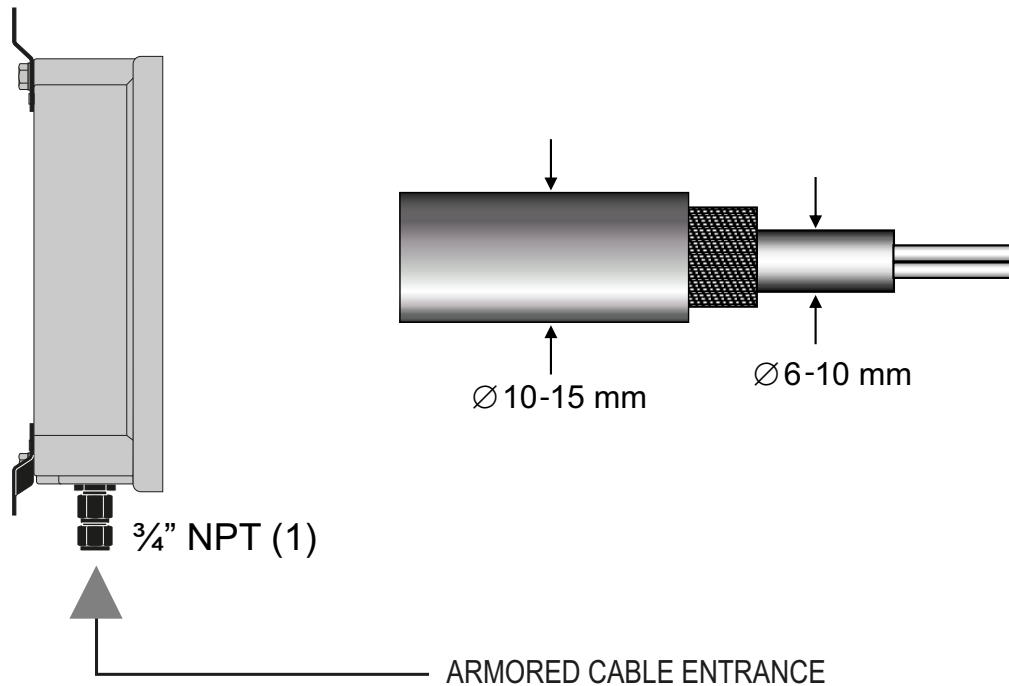
**1.2-** Remove the closing screw from the cover **A**



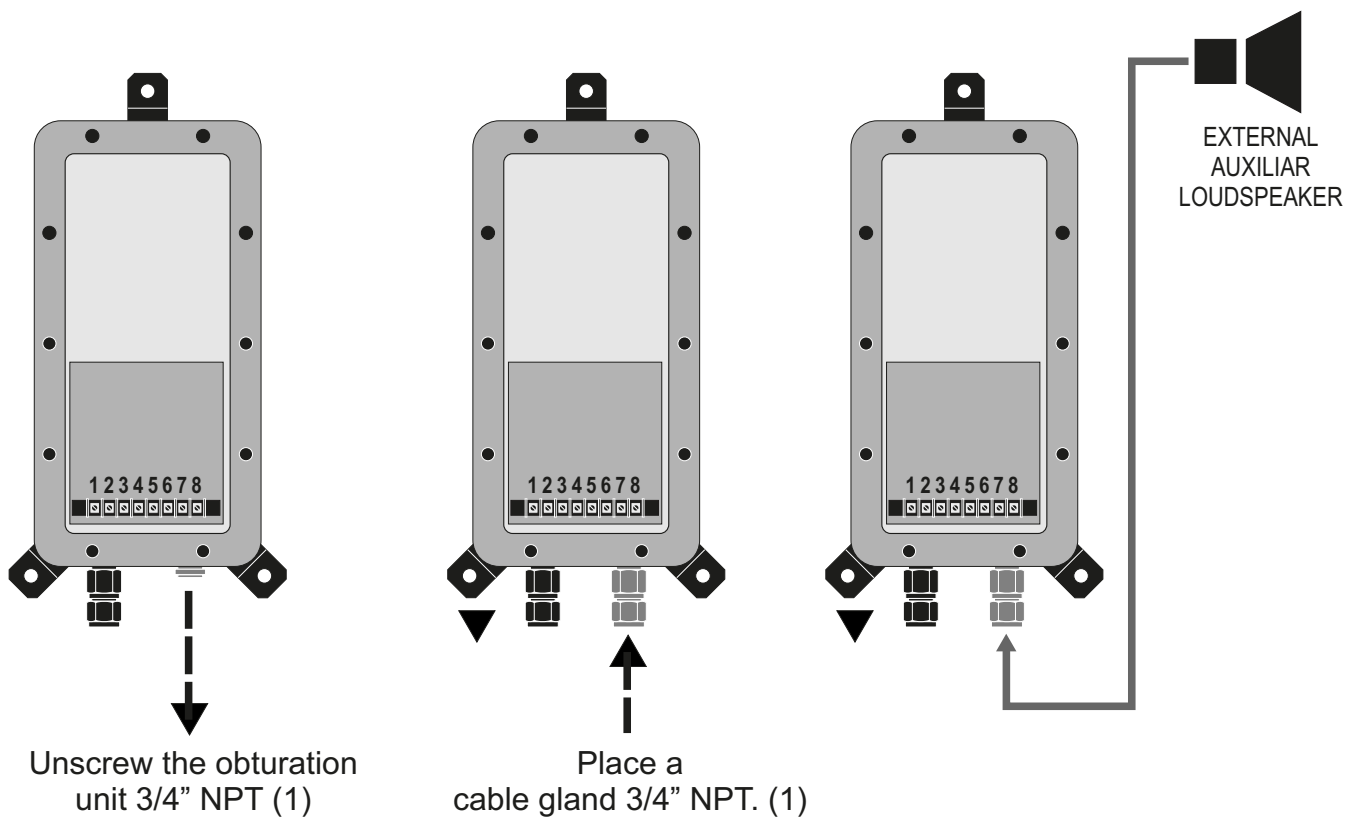
**1.3-** Remove the front cover unplugging the cable multi connector.



1.4- Connect the unit by means of armored cable.



1.5- It is possible to install an auxiliary loudspeaker, associated to the substation, replacing the obturation unit (3/4" NPT) by an explosion proof cable gland 3/4" NPT

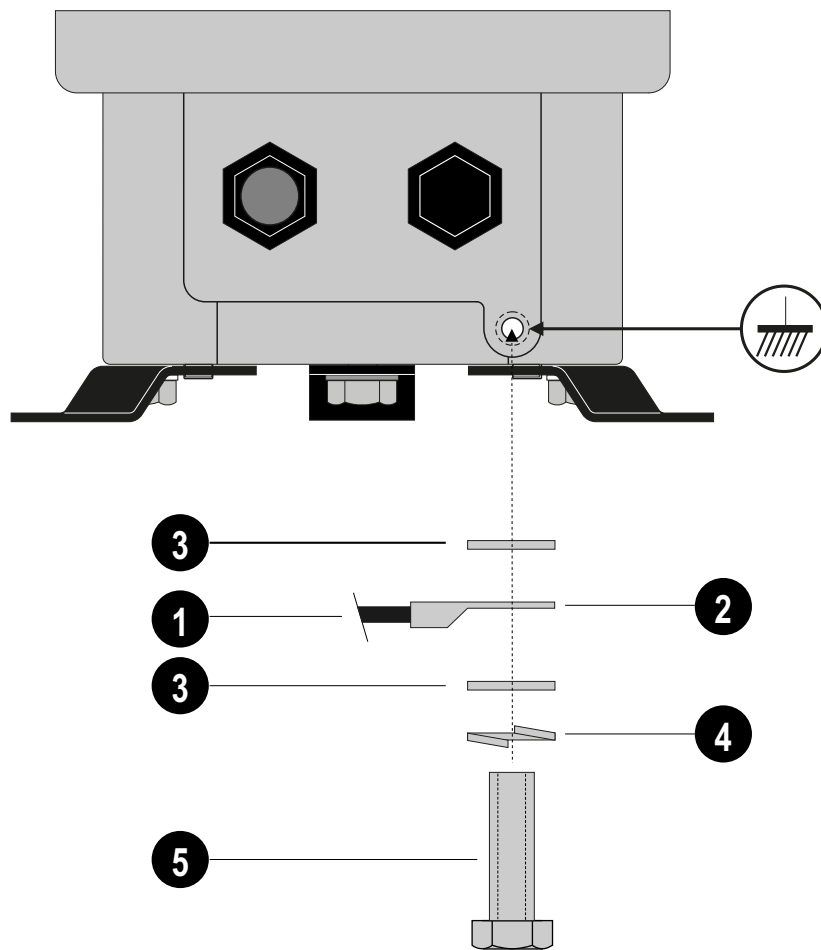


(1). The cable glands as well as the obturation unit having a 3/4" NPT thread must be screwed in the enclosure, introducing at least six threads and pressing conveniently to avoid an accidental slacken.

**1.6-** Connect the cabinet to earth using a wire with a section greater or equal to 10 mm<sup>2</sup>.

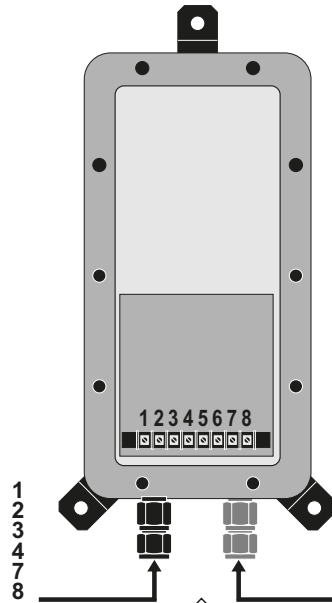
The project specifications with respect to the earth connecting network should be taken into account.

### (EXTERIOR CABINET) EARTH CONNECTING EXAMPLE



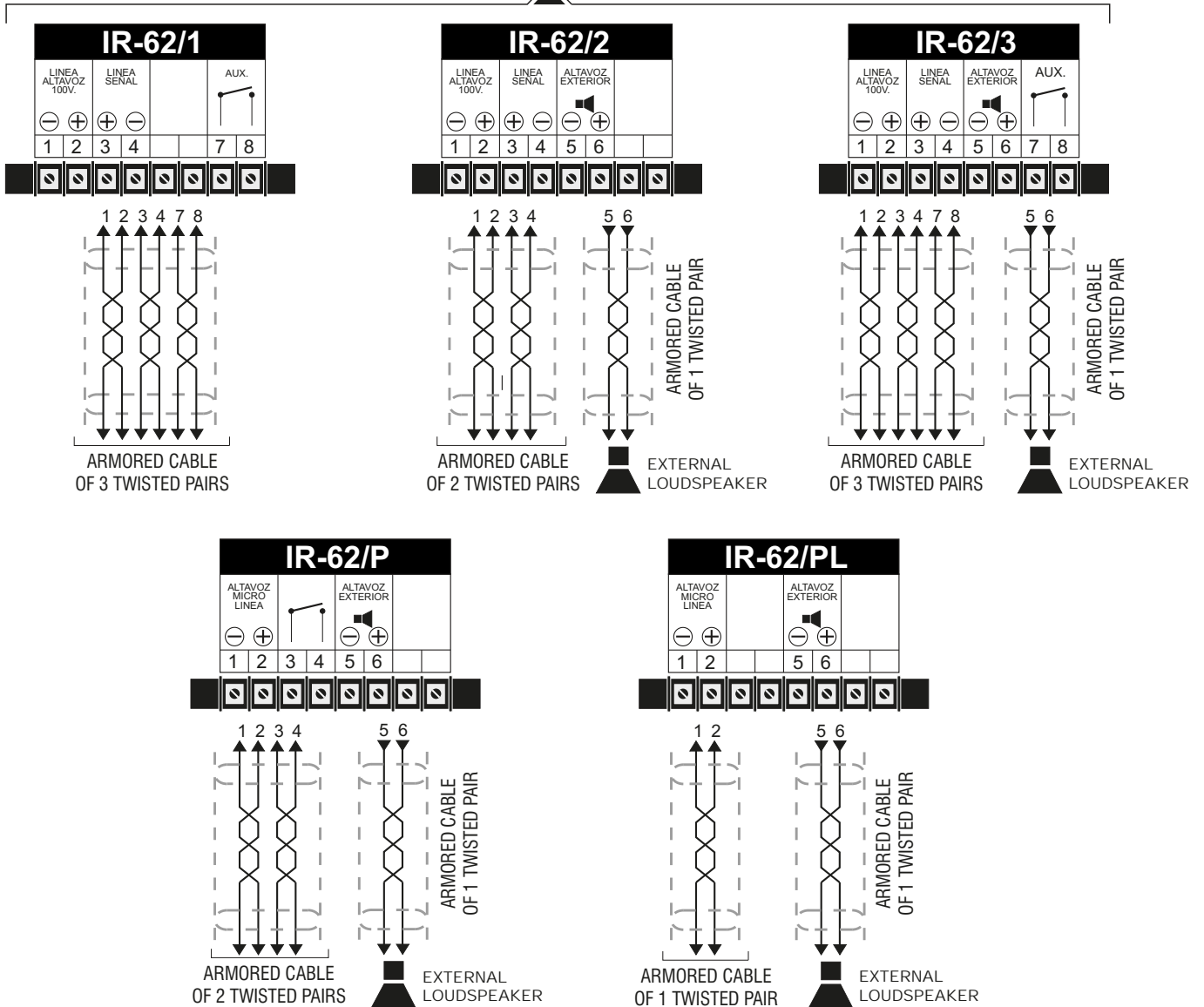
- 1** EQUIPOTENTIAL UNION CONDUCTOR OF EXTERNAL MASS (Section 10 mm<sup>2</sup>)
- 2** ROUND SPADE TERMINAL
- 3** FLAT WASHER (DIN 125) M6 - STAINLESS
- 4** GROWER WASHER (DIN 7980) M6 - STAINLESS
- 5** M6x12 (DIN 933) - STAINLESS SCREW

1.7- As next, connect the substation IR-62 according to the corresponding scheme:



Minimal recommended wire section: 1,5 mm<sup>2</sup>

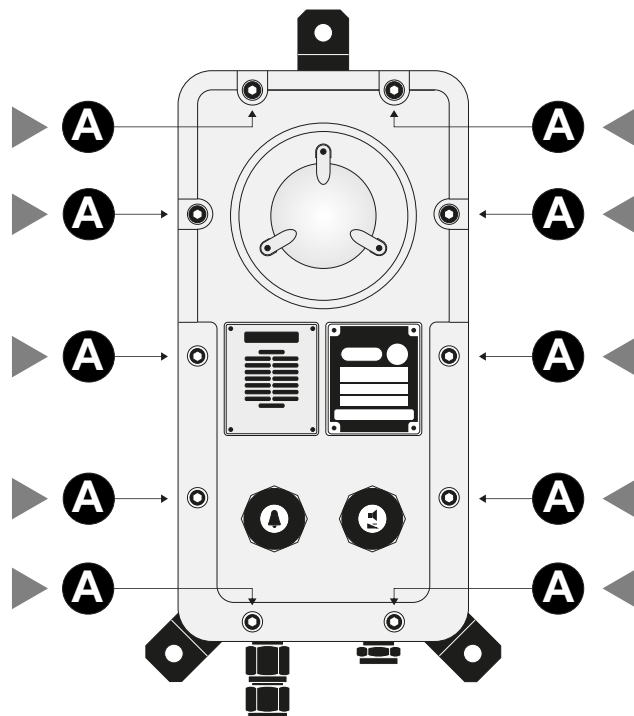
5 OPTIONAL CABLE GLAND  
6 FOR EXTERNAL LOUDSPEAKER



**1.8-** Reconnect the cover's cable multi connector.

**1.9-** Grease the joint (\*) and close the enclosure using the ten fixing screws (**A**).

Be especially careful that the flat joint suits correctly in all its perimeter.(\*\*)



(\*) to grease the joint use grease made of a colloidal bisulphide of molybdenum suspension.

(\*\*) each enclosure consists of a cover-bottom set which is interiorly identified by a stamped number in the cover and in the bottom, to avoid accidental interchanges during the assembling-disassembling process.

## 2. - OPERATION

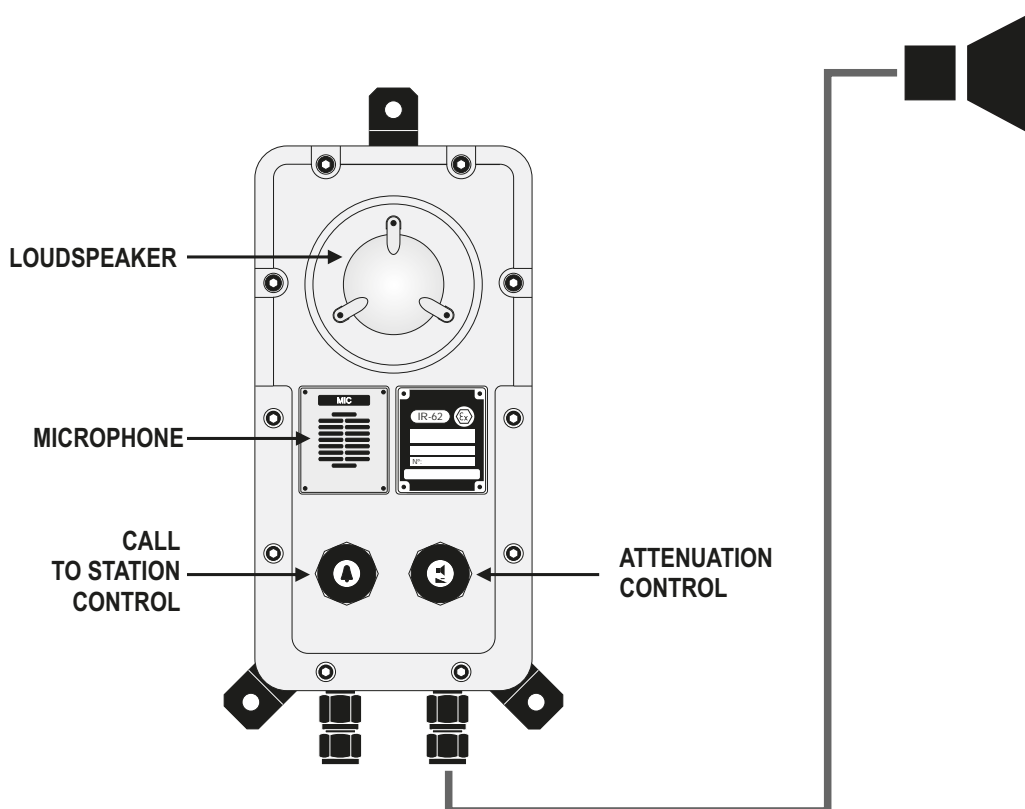
- **Call from substation to station:** press control call. A warning buzzer rings in the station and a pilot lamp illuminates indicating the substation that has made the call.

- **Conversation:** the station selects the circuit and controls the way of the communication (talk-listen) with the intercom substation IR-62, so that for the substation user, the communication is hand-free.

- **Attenuation:** if the environment's noise is low, a satisfactory communication with the station can be established, talking from at most 3 meters of the substation.

However, if the environment's noise is high, it will be necessary to be at a distance of 30 or 40 cm from the substation. In this case, the attenuator of the substation should keep activated to avoid an excessive listen level of the substation user. To do this, the control attenuation should keep pressed. When the push button switch attenuation is activated, it attenuates the loudspeaker of the substation and moreover, it stops the sound of the auxiliar loudspeaker, if it exists.

- **Call from station to substation:** this call is made verbally through the substation and auxiliar loudspeakers, if these exist.



### 3.- MAINTENANCE

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Once the installation and commissioning of the intercom system are completed, it will be necessary to make periodical revisions of the substations IR-62 in order to keep their safety and efficiency.

The enclosure of the intercom substation IR-62 is made in aluminium fusing, stainless steel screws, etc. It has an IP-65 protection degree and it is appropriate for industrial environments.

A first revision after three months of the system commissioning is recommended. Afterwards, the periodicity will be established according to the property maintenance protocols. At least, a revision per year.

These revisions must be made by specialists, following the suitable safety norms according to legal requirements.

#### Procedure:

1. Verify if the machine is operating correctly. Test the functions: call, talk, listen, auxiliar loudspeaker cut (if it exists), attenuation.
2. Disconnect the power supply (with the common precautions, signalization, etc. )
3. Disassemble of the protection cover of the microphone and the loudspeaker
4. Clean the filters using a paintbrush which should be clean and dry.
5. Put back the protection covers
6. Disassemble the front cover of the substation, specially keeping the flat joint, the way it is described for the assembling.
7. Examine the enclosure as well as the flat joint and the filters.  
In order to guarantee an appropriate protection there must be no corrosion neither damages.
8. Examine the internal connections, cables, terminals, etc. as well as the electronic elements, transformers, etc.
9. The next step is to grease the flat joint.
10. Assemble again the cover, as explained for the assembling.

(\* ) to grease the joint use grease made of a colloidal bisulphide of molybdenum suspension

## **Repairs:**

If necessary, the elements such as transformers, loudspeaker's engine, microphonic cartridge, etc. can be substituted, only and exclusively by original spares.

The protection enclosure is composed by a set of elements: cover, bottom, filters, etc. Once it is assembled during the manufacturing process, the enclosure is tested in order to guarantee security according to the Directive 94/9/CE.

The enclosure (including all its components) can only be repaired and tested by the manufacturer, as indicated in the previous paragraph.

## EU DECLARATION OF CONFORMITY

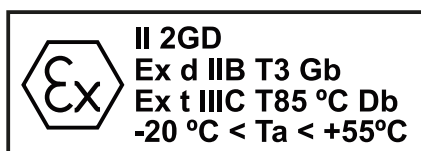
### UNIÓN DESARROLLOS ELECTRÓNICOS S.A.

Address:  
C/ Montilla, 2  
08970 SANT JOAN DESPI (BARCELONA)  
SPAIN

Declares that the product:

**INTERCOM Model IR-62**

With marking:



Certificate No.: LOM 10ATEX2049

Serial Number:

Conforms to ATEX Directive 2014/34/EU

Applicable standards:

**EN IEC 60079-0:2018, EN 60079-1:2014 and IEC 60079-31:2022/COR1:2023**

In order to comply with section 1.2.7 of Annex II of Directive 2014/34/EU, and to eliminate electrical hazards, the following standard has been used:

**IEC 62368-1:2023**

Notification of the Quality System by the L.O.M. Entity.  
Notified Body number 0163.

Notification number: **LOM 10ATEX9094**

Sant Joan Despí, 12 March 2024



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