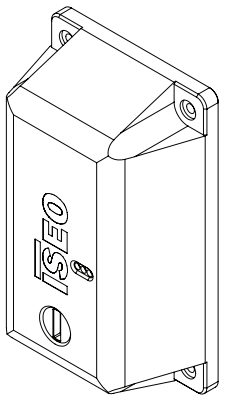
Heavy Duty Reader

ISEO Zero1 ELECTRONIC SOLUTIONS

INSTALLATION GUIDE



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ELECTRONIC SUPPORT SERVICE

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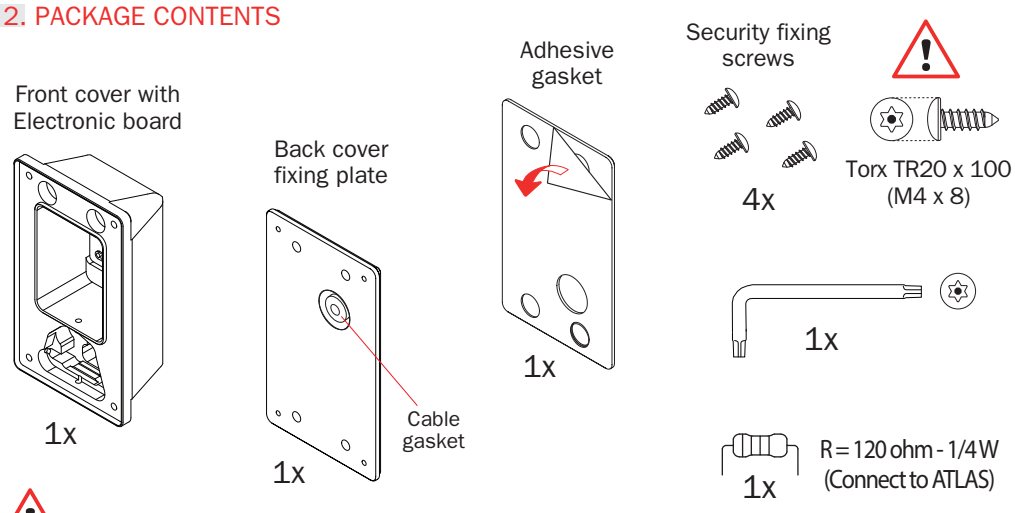
1. TECHNICAL SPECIFICATIONS

- PRODUCT:
  Wall mounting antivandal heavy duty reader/writer for F9000 keys.
- FEATURES:
  - Solid metal antivandal housing: impact protection grade IK10.
  - All weather outdoor usage: IP66, IP67 and IP69 protection grade.
  - High corrosion resistance: tested for 480 hours in NSS (Neutral Salt Spray chamber).
  - Security fixing screws.
  - Ability to replace the mechatronic cylinder core.
  - No sharp edges (all rounded edges).
  - RS485 interface.
  - Power supply: by Atlas
  - Power consumption: 2W
  - Multicolor signaling LEDs (green, blue, red).
  - LxDxH = 150 x 90 x 53 mm
- CERTIFICATIONS:
  EN60068-2-1, EN60068-2-2, EN60068-2-3, IEC 60529, IEC 62262.
- ENVINRONMENTAL CHARACTERISTICS:
  - Operating temperature: -40°C ÷ +80°C
  - Storage temperature: -40°C ÷ +80°C
  - Humidity: max 93% without condensation

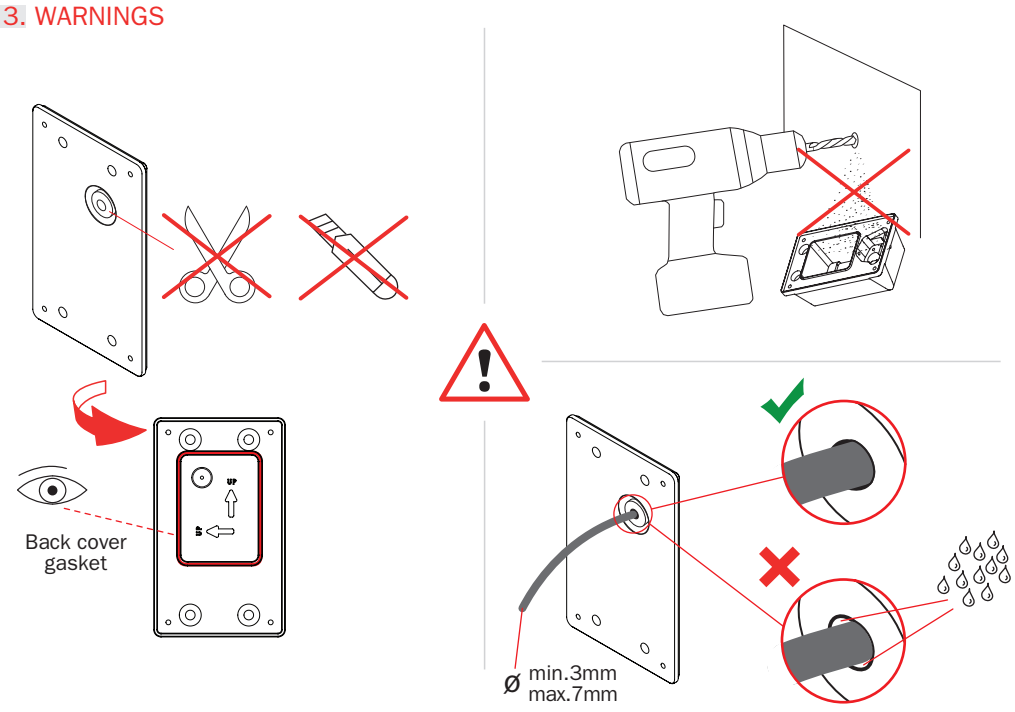
2. PACKAGE CONTENTS



Wall fixings not provided in the kit. The installator must choose the most suitable fixings according to the wall type and material. ISEO recommends to install the Heavy Duty Reader in a concerete wall by M10 steel anchors with M6 bolts.

- Minimum recommended traction load for anchors: 150Kg.
- Maximum bolts diameters 6mm.
- Maximum bolts head dimension: Ø 14mm diameter x 6mm thickness.

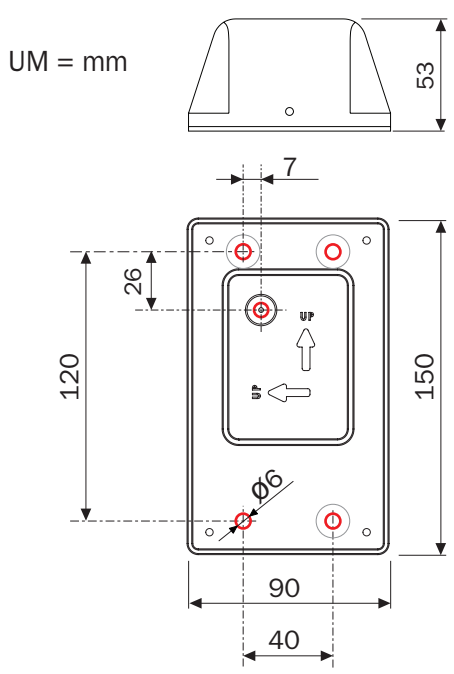
3. WARNINGS

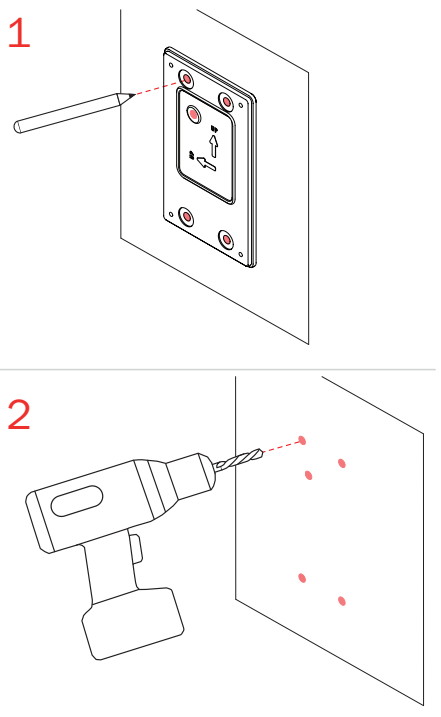


3.1 WARNINGS

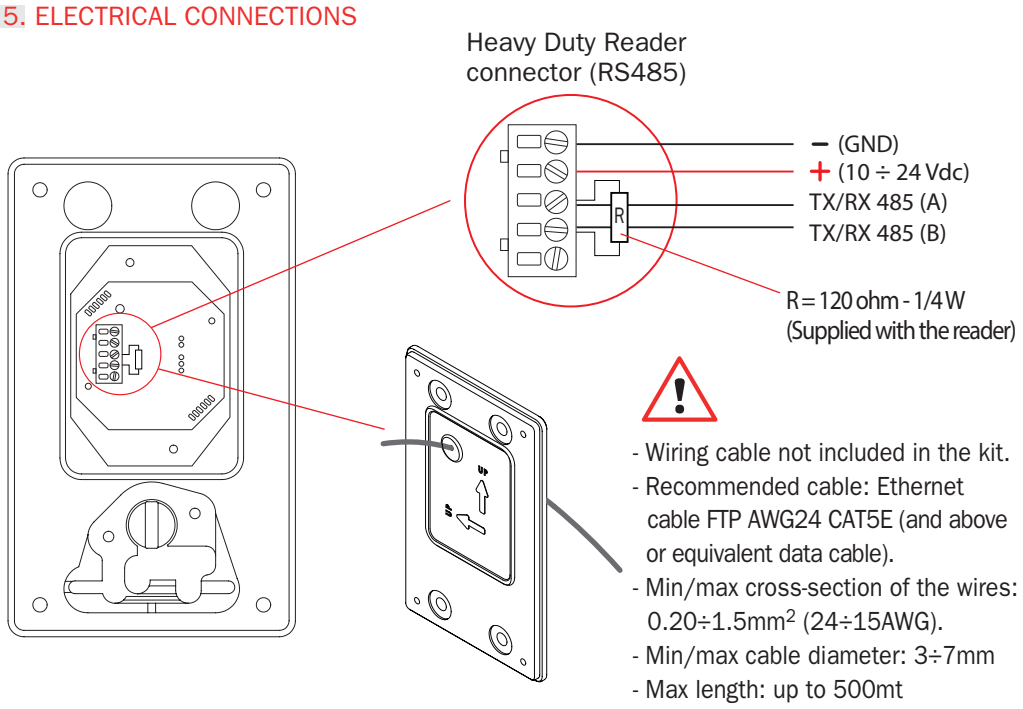
- Read this manual prior to use the device in order to ensure a safe and proper use.
- Preserve this manual as future reference.
- The installation of the device requires the intervention of qualified staff, adequately trained by ISEO.
- The instructions should be carefully followed during the use of the product. These instructions should be passed on by the installer to the user.
- No modifications of any kind are permitted, except for those described in these instructions.
- The product must be destined only for the use for which it is expressly designed and therefore as an heavy duty reader and writer unit for civil and industrial locations. Any other use is considered improper and dangerous.
- Keep the **Front cover** inside its box during the installation of the **Back cover fixing plate**, to prevent drilling residues from entering inside the **Electronic board**.
- Use the **Adhesive gasket** only in case of not-straight or no flat wall. If the **Adhesive gasket** is required, take care to uniformly apply it to seal the reader to the wall, in order to avoid any water penetration.
- Check if the **Back cover gasket** is correctly fitted in the slot. If not re-position it correctly in order to avoid any water penetration.
- Do not enlarge, damage or modify the **Cable gasket**, failure to do that it could compromise the water sealing. Use a max cable diameter of 7mm to ensure the cable passage through the cable gasket hole.
- Check the **Wiring cable** perfectly fits inside the **Cable gasket** hole without leaving any space that could allow water penetration. Use a min cable diameter of 3mm to ensure the cable gasket impermeability.

4. DIMENSIONS



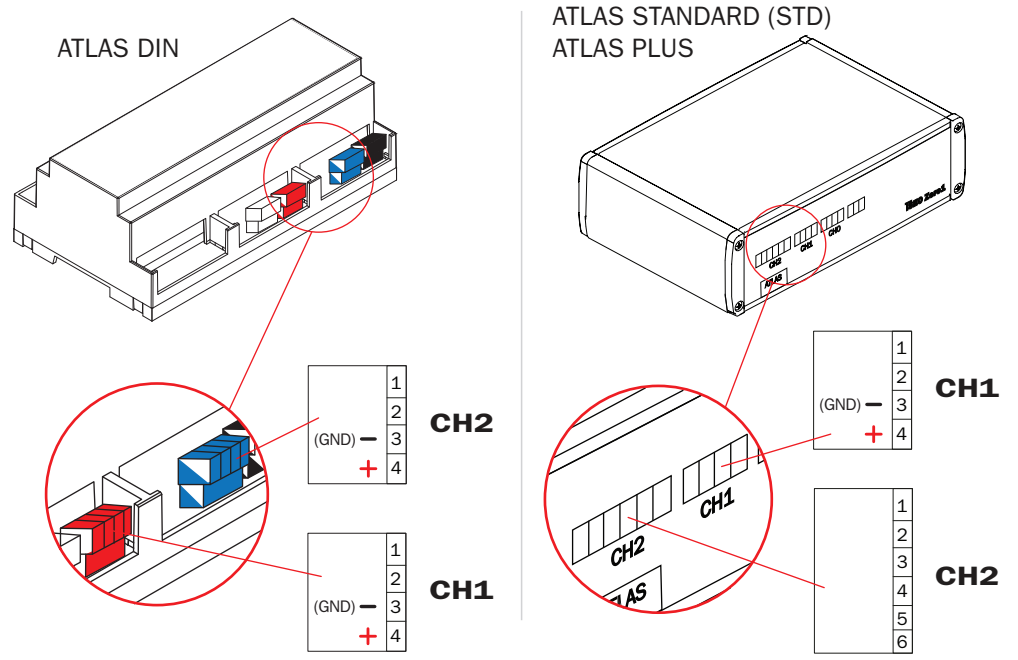


5. ELECTRICAL CONNECTIONS



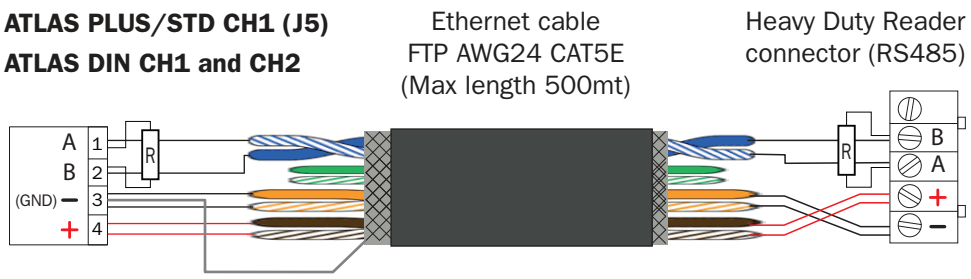
- Wiring cable not included in the kit.
- Recommended cable: Ethernet cable FTP AWG24 CAT5E (and above or equivalent data cable).
- Min/max cross-section of the wires: 0.20÷1.5mm^2 (24÷15AWG).
- Min/max cable diameter: 3÷7mm
- Max length: up to 500mt

6. ELECTRICAL CONNECTIONS: ATLAS TYPE AND CONNECTORS



7. ELECTRICAL CONNECTIONS EXAMPLE: TO ATLAS BY ETHERNET CABLE

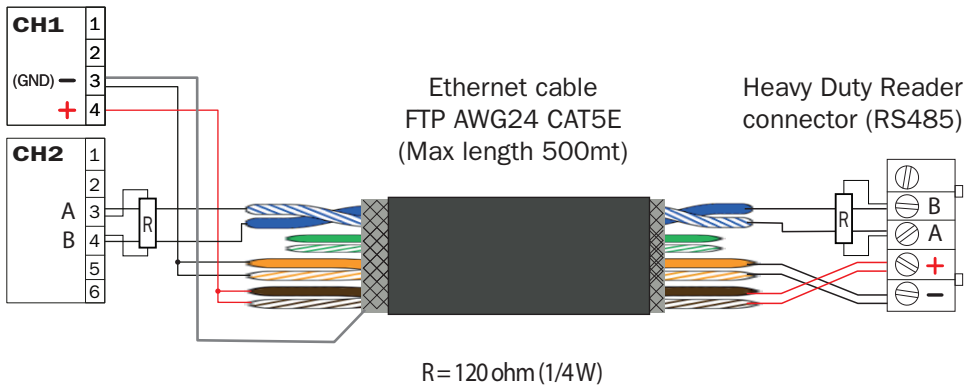
- **ATLAS PLUS/STD CH1 (J5)**
- **ATLAS DIN CH1 and CH2**



- Ethernet cable FTP AWG24 CAT5E (and above).
- Required Atlas power supply: 24Vdc.
- Maximum Ethernet cable length between Atlas and Heavy Duty Reader: 500mt.
- Resistance value: 120 ohm (1/4W) on both Atlas and F9000 Reader sides.
- Recommended capacitance conductor/conductor < 100pF/m.
- Recommended conductors electrical resistance max 90 ohm/Km.
- Connect the ethernet cable shield to the Atlas GND connector only if Atlas NOT connected to ground.
- For more information about Atlas and its connectors, refer ot the *Atlas Installation Guide* avalable at: *app.iseo.com*.

7.1 ELECTRICAL CONNECTIONS EXAMPLE: TO ATLAS BY ETHERNET CABLE

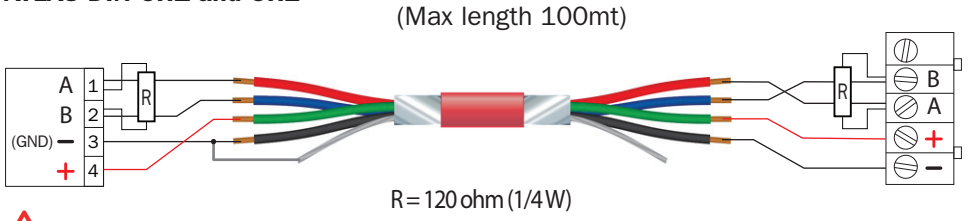
- **ATLAS PLUS/STD CH2 (J11)**
  and CH1 (J5)



See warnings in box 7

7.2 ELECTRICAL CONNECTIONS EXAMPLE: TO ATLAS BY ALARM CABLE

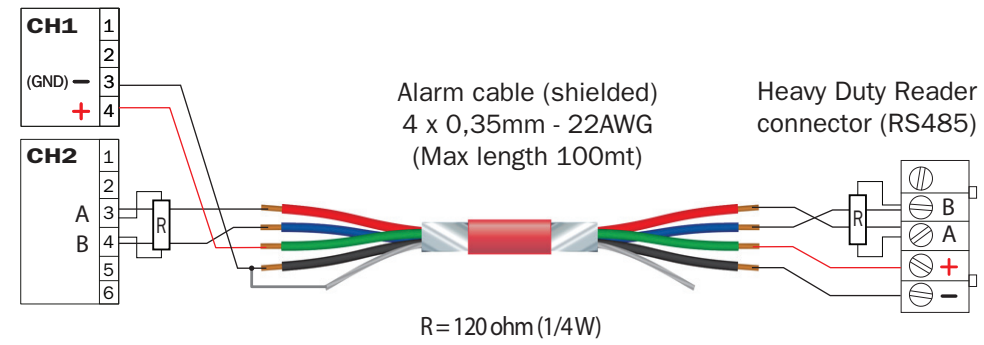
- **ATLAS PLUS/STD CH1 (J5)**
- **ATLAS DIN CH1 and CH2**



- Shielded alarm cable good quality 4 x 0,35mm (22AWG).
- Required Atlas power supply: 24Vdc.
- Maximum cable length between Atlas and Heavy Duty Reader: 100mt.
- Resistance value: 120 ohm (1/4W) on both Atlas and F9000 Reader sides.
- Recommended capacitance conductor/conductor < 100pF/m.
- Recommended conductors electrical resistance max 90 ohm/Km.
- Connect the ethernet cable shield to the Atlas GND connector only if Atlas NOT connected to ground.
- For more information about Atlas and its connectors, refer ot the *Atlas Installation Guide* avalable at: *app.iseo.com*.

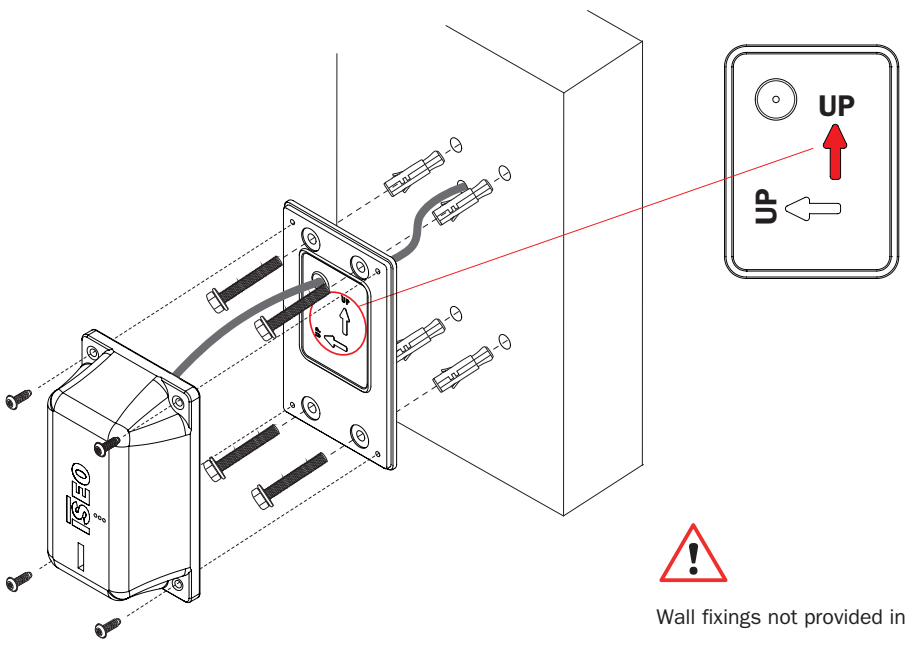
7.3 ELECTRICAL CONNECTIONS EXAMPLE: TO ATLAS BY ALARM CABLE

- **ATLAS PLUS/STD CH2 (J11)**
  and CH1 (J5)



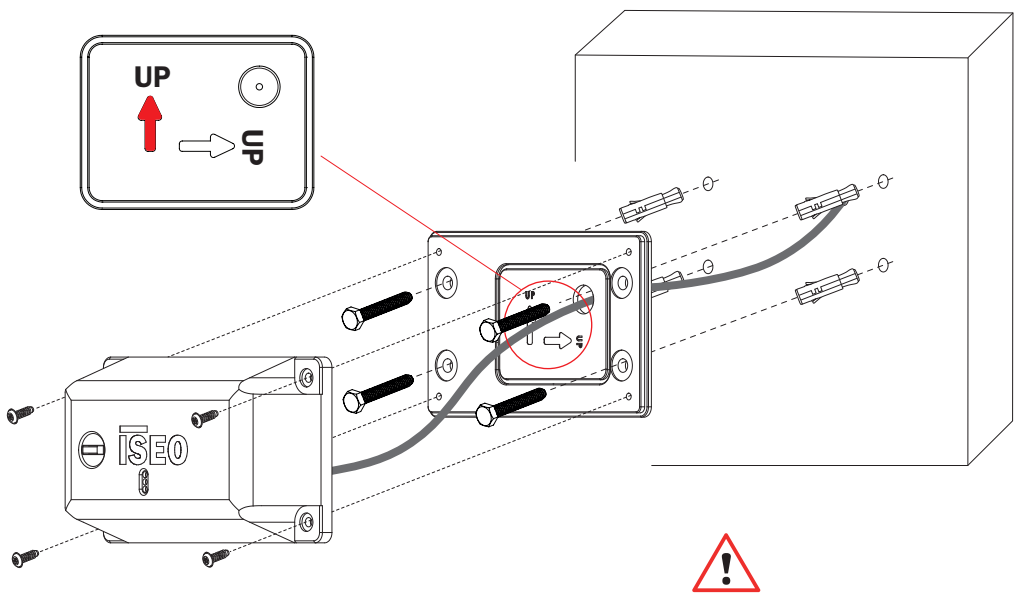
See warnings in box 7.2

8. INSTALLATION EXAMPLE: VERTICAL ON A WALL



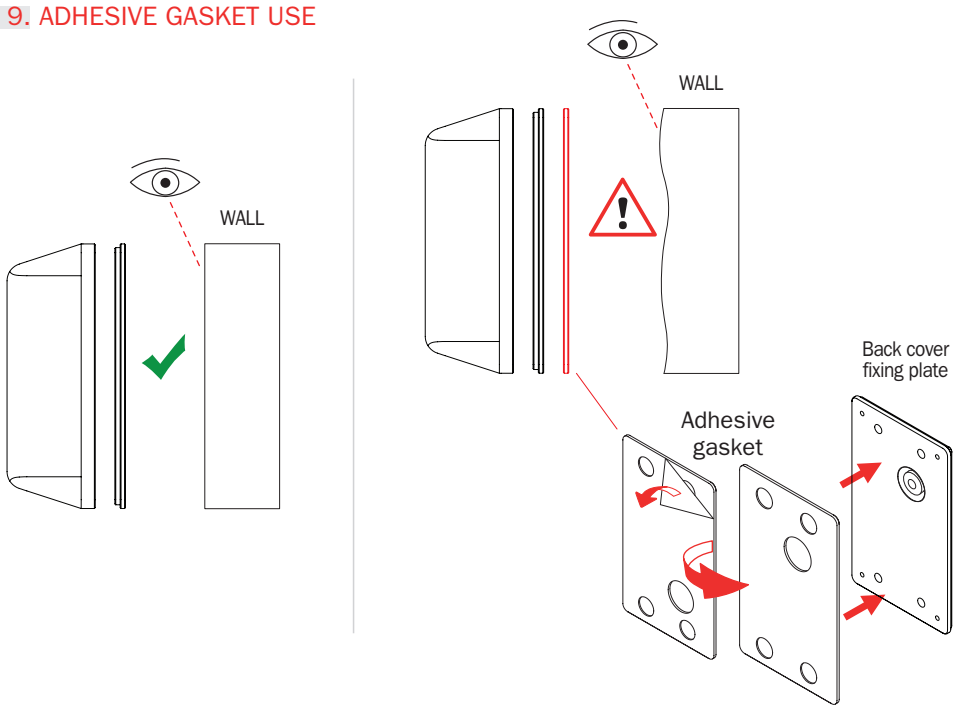
Wall fixings not provided in the kit.

8.1 INSTALLATION EXAMPLE: HORIZONTAL ON A WALL

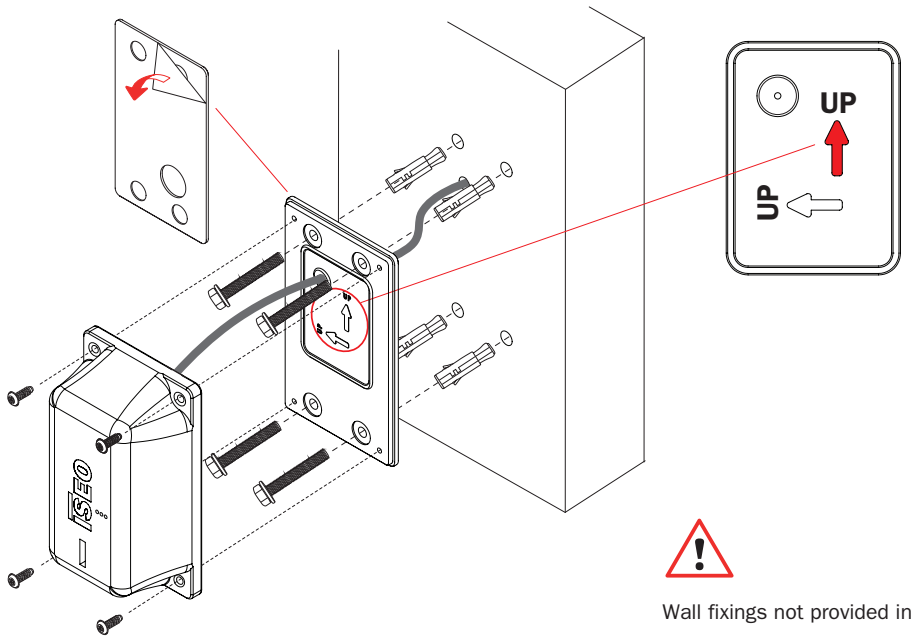


Wall fixings not provided in the kit.

9. ADHESIVE GASKET USE



9.1 INSTALLATION EXAMPLE: VERTICAL WITH ADHESIVE GASKET (NOT FLAT WALL)



Wall fixings not provided in the kit.