

AMC2 enclosure - 1 DIN rail

AEC-AMC2-UL1



BOSCH

en Installation Manual

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1 System Overview

1.1 Components of the Housing

The metal housing includes the following components:

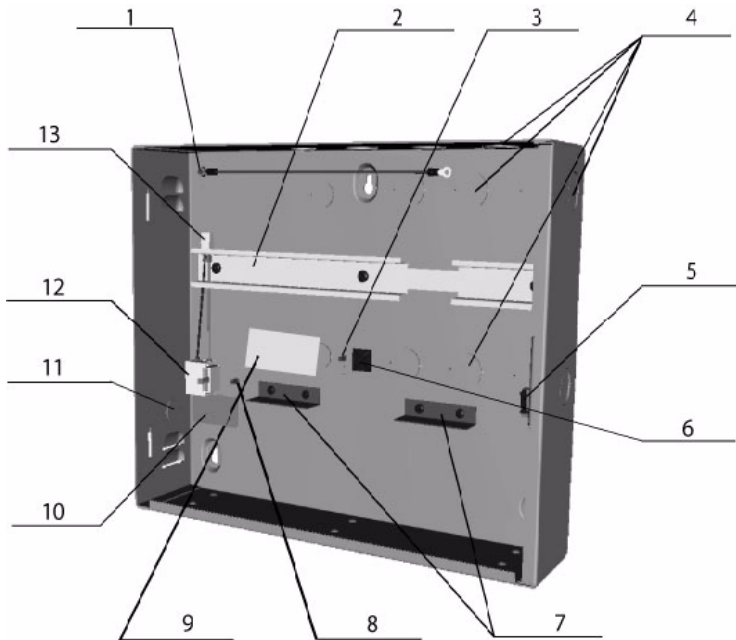


Figure 1.1: Components of the Housing

Item No.	Description
1	Cover grounding point
2	Mounting rail for PS and AMC
3	AMC grounding point
4	Cable knock-outs for reader and signal cables
5	Cover tamper switch
6	Temperature sensor bracket
7	Clips for rechargeable batteries
8	Main grounding point
9	Name plate
10	Label
11	Power cable knock-out
12	Three pin connector
13	Power supply connector

1.2 Accessories Kit

The accessories kit includes the following cables. Install these cables as described in the chapter **Connection of the Devices**.

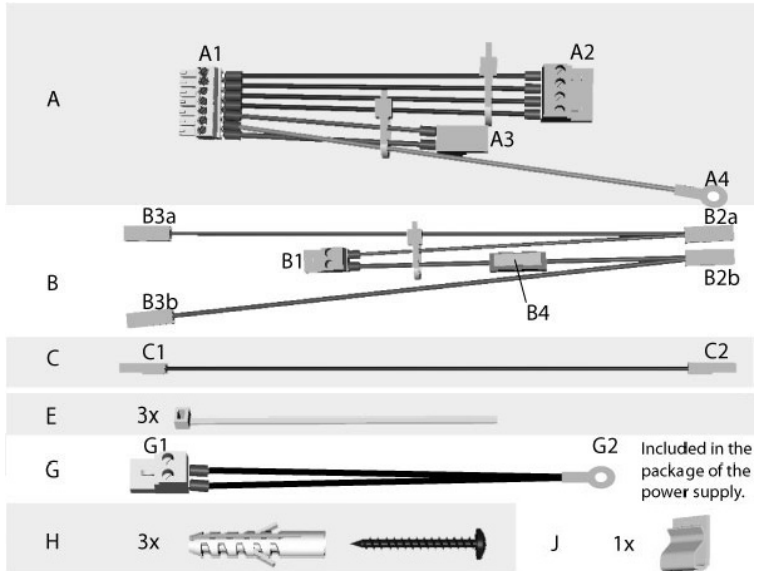


Figure 1.2: Content of Accessories Kit

Content of the Accessories Kit:

Index	Description
A	Pre-assembled cable to connect the AMC to the power supply
B	Pre-assembled cable to connect the rechargeable batteries to the UPS (uninterruptable power supply) which is included in the power supply
C	Battery cable for using 24V mode
E	Cable ties to secure the pre-assembled cable
G	Pre-assembled cable with temperature sensor
H	Three screw anchors S8 and wood screws M6 x 50
J	Bracket for cable fixing

2 Mounting the Housing

Open the housing cover lock with the provided key and open the cover. Mount the metal housing at the desired position with the screw anchors provided with the enclosure. Use the screws at the points to mount the housing against the wall.

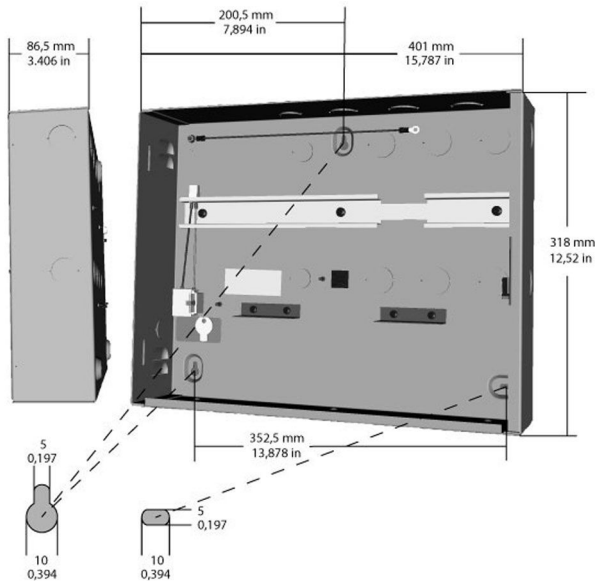


Figure 2.1: Dimensions of the Housing

3 Connection of the Devices

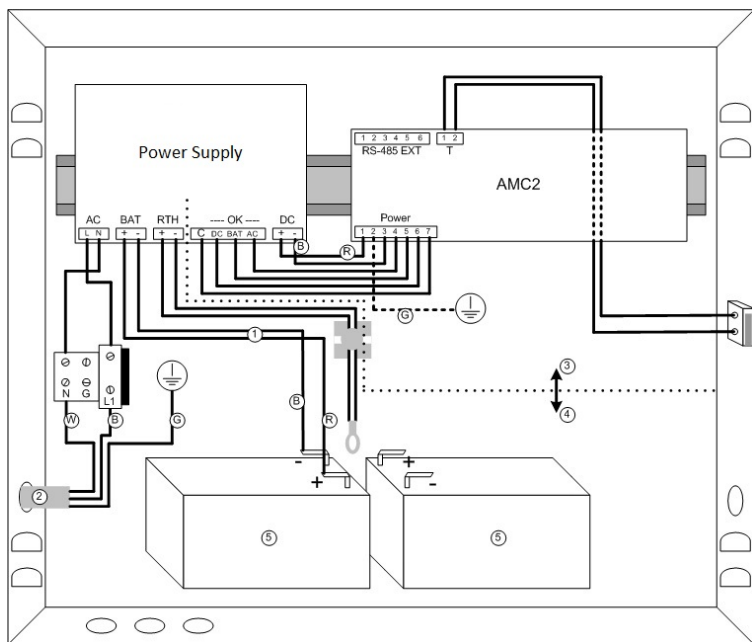


Figure 3.1: Connections in the Enclosure

Connect the readers and other peripheral devices as described in the AMC Installation manuals and in the manuals of the peripheral devices. Route the device cables through the knock-outs in the top and right side wall of the housing, or through the rear of the housing.



Notice!

Make sure that the mains adapter has the correct output voltage (12V or 24V).

When installing the enclosure, make sure to provide an appropriate disconnect device for the mains supply voltage. Removing a fuse or simply pulling the plug is not an appropriate means to disconnect the device!

**Warning!**

Risk of electric shock!

Disconnect the mains supply voltage before doing any work at the devices inside the enclosure.

**Notice!**

All cables connected to the AMC modules and the power supply are classified as Class 2 Conductors, with the exception of the battery cable and the AC input cable. These two are non-power limited circuits.

**Notice!**

For UL installations a minimum of ¼" (6.4 mm) spacing is to be maintained between all class 2 or 3 conductors and all electric, light, power, Class 1 conductors, non-Class 2 or 3 signaling conductors, or medium-power network-powered broadband communications-circuit conductors (see areas **3** and **4** in Fig. 3.1).

Mounting Components

1. Mount the AMC on the rail on the right (item **2** – Fig. 1.1) and left aside the power supply.
2. If rechargeable batteries are used, put them on the bottom of the housing and secure them using clip **7** (Fig. 1.1).

The components described below refer to **Cable A** (Figure 1.2):

Cable A - AMC Power Cable

1. Connect the 7-pin plug **A1** to the AMC's power supply connector (labeled: **POWER**).
2. Attach connectors **A3** to the PS-interface **DC** and **A2** to the interface labeled **OK**.
3. Connect the grounding cable **A4** at the grounding point **3** (Fig. 1.1).

The components described below refer to Figure 1.1:

Cable 12 - AC Power Cable

Connect the 2-pin plug **13** on the interface **AC** of the power supply.

Cable 5 – Tamper Cable

Connect the loose ends of the cover tamper switch to the 2-pin screw connector on the top of the AMC marked with **T**. Position the cable in the space between the housing and the mounting rail.



Danger!

Risk of electric shock

Make sure that all wires to be connected have Zero potential!

Main AC supply X:

1. Connect the grounding cable to the housing at position 8 in figure 1.1.
 2. Connect the blue (neutral) wire to terminal **N**.
 3. Connect the brown (phase) wire to terminal **L1**.
-

Notice!



Shorten the external supply wires so that the ground (yellow/green) wire is at least 20 mm (0.8 in.) longer than the live (blue and brown) wires. This ensures that the ground wire cannot be accidentally disconnected before live wires.

Cable 1 – Cover grounding Cable

1. Connect cable **1** to the grounding point on the cover.
2. Close the cover.

4 Connections for Supporting UPS

**Notice!**

Before switching to battery operation disconnect the AC Power Cable (Fig. 1.1 – item 13) from the power supply.

**Notice!**

Use only 12V 7Ah batteries.

Change lead batteries at least every 5 years

**Notice!**

In UL installations, if the fuse is blown, order cable No. F.01U. 328.004 with your regional spare part desk to replace the entire battery cable.

Cable G - Battery temperature sensor cable

1. Attach connector **G1** on the PS-interface labeled **RTH**.
2. Route the cable across the temperature sensor bracket **6** so that the temperature sensor **G2** hangs approximately 5 cm (2 in.) above the rechargeable batteries.

4.1 12 V Mode Operation

To set the power supply to 12V mode set the switch as displayed in the image below.



Figure 4.1: Power Supply Switch in 12V Mode

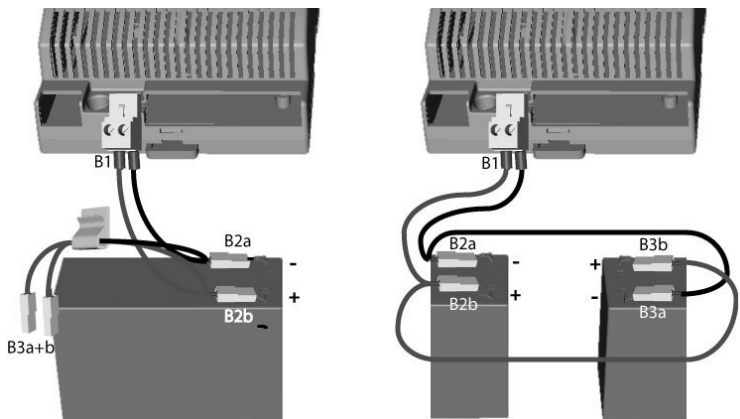


Figure 4.2: 12V Mode - with one battery (left) and two batteries (right)

The 12 V mode can be configured using one or two rechargeable batteries. For a one-battery installation, refer to the Figure 4.2 (left), and perform the following procedure:

1. Connect **B1** to the power supply position labeled **BAT**.
2. Connect **B2a** (black) to the rechargeable battery's – terminal, and **B2b** (red) to the rechargeable battery's + terminal.
3. Stick the bracket (Fig. 1.2 – item **J**) on the back of the housing next to the batteries.
4. Connectors **B3a** and **B3b** remain unused - fix them using the bracket **J**.

For the two-battery installation, refer to the Figure 4.2 (right) and perform the following procedure:

1. Connect **B1** to the power supply position labeled **BAT**.
2. Connect **B2a** (black) to the rechargeable battery's – terminal, and **B2b** (red) to the rechargeable battery's + terminal.
3. Connect **B3a** (black) to the second rechargeable battery's – terminal, and **B3b** (red) to the second rechargeable battery's + terminal.

4.2 24 V Mode Operation

To set the power supply to 24V mode set the switch as displayed in the image below.



Figure 4.3: Power Supply Switch in 24V Mode

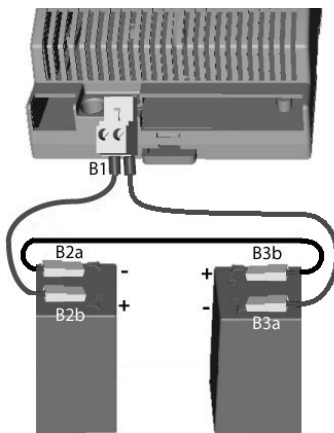


Figure 4.4: 24V Mode

Cables B and C - Battery Cables

1. Connect the plug connector **B1** on the PS-interface labeled with **BAT**.
2. Attach connector **B2b** (red) to the + pin of the first rechargeable battery.
3. With cable **C** connect the – pin of the first rechargeable battery to the + pin of the second rechargeable battery.
4. Attach connector **B2a** (black) to the – pin of the second rechargeable battery.
5. Stick the bracket (Fig. 1.2 – item **J**) on the back of the housing next to the batteries.
6. Connectors **B3a** and **B3b** remain unused – fix them using the bracket **J**.

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