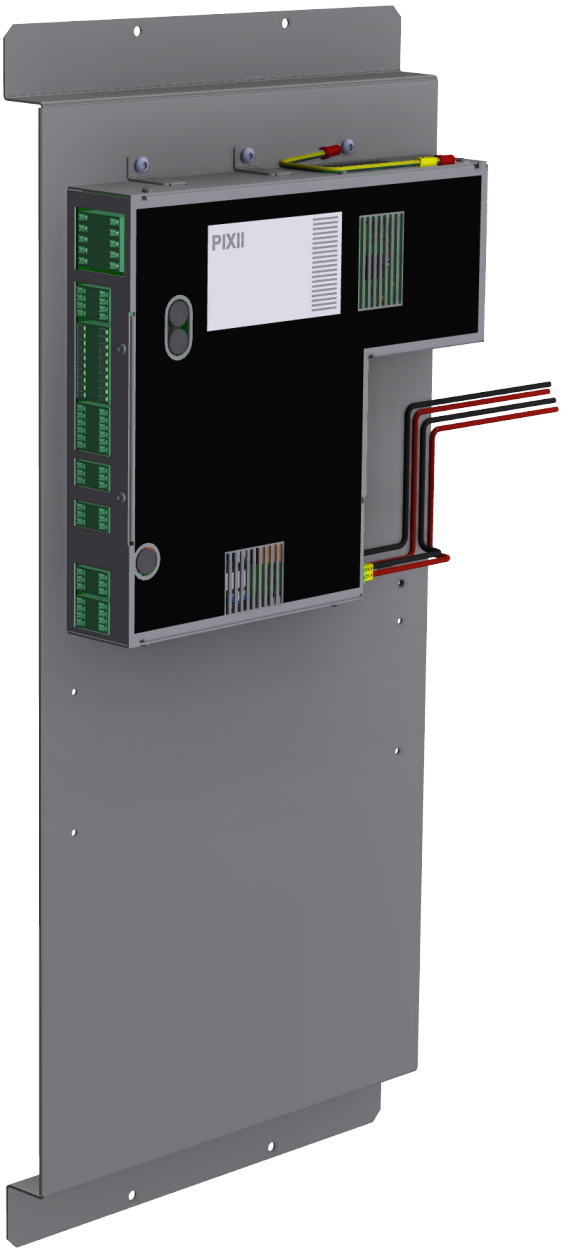
Shaping the power of the future

Installation Guide

Master Gateway Controller

PowerShaper 2.0 Indoor



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Public

Document number: 16030, rev. 1.0
Author: Peter Bino
Issue date: 28.06.2024

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Revision	Date	Comment
1.0	28.06.2024	Initial

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1 Introduction

This document describes the step by step installation of Master Gateway controller kit (PN 12611) into the Powershaper 2.0 Indoor energy storage system. Read it carefully and follow all recommendations to be sure system is running in correct environment under good conditions and installation reached all safety requirements.

1.1 Recommended tools and torque

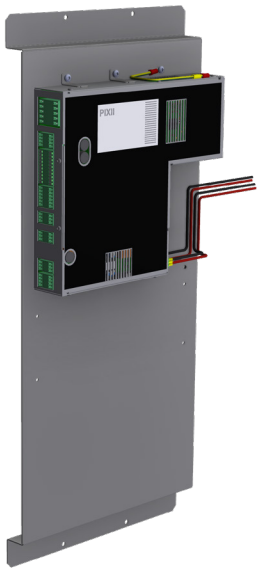
	Tool
W	Wrench
T-W	Torque wrench
TX	Torque Torx screwdriver

Table 1. Tools

	Type & Size	Torque
T1	M4 Torx screw	2,9Nm
T2	M6 Torx screw	9,8Nm

Table 2. Recommended torques

2 Components overview

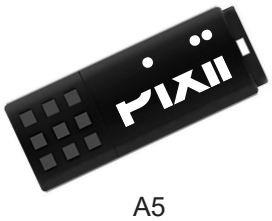


A1
(1pc)

A2
(5pcs)

A3
(5pcs)

A4
(4pcs)



A5
(1pcs)

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3 Description

Master Gateway controller is dedicated to secure data collection and communication with slave and switch cabinets.

The Gateway in the master cabinet/unit must have the “Multicabinet role” defined as “Master”.

This is a Gateway that does not have active converters and batteries connected to it. This is suitable for larger multicabinet systems from 6 – 20 cabinets.

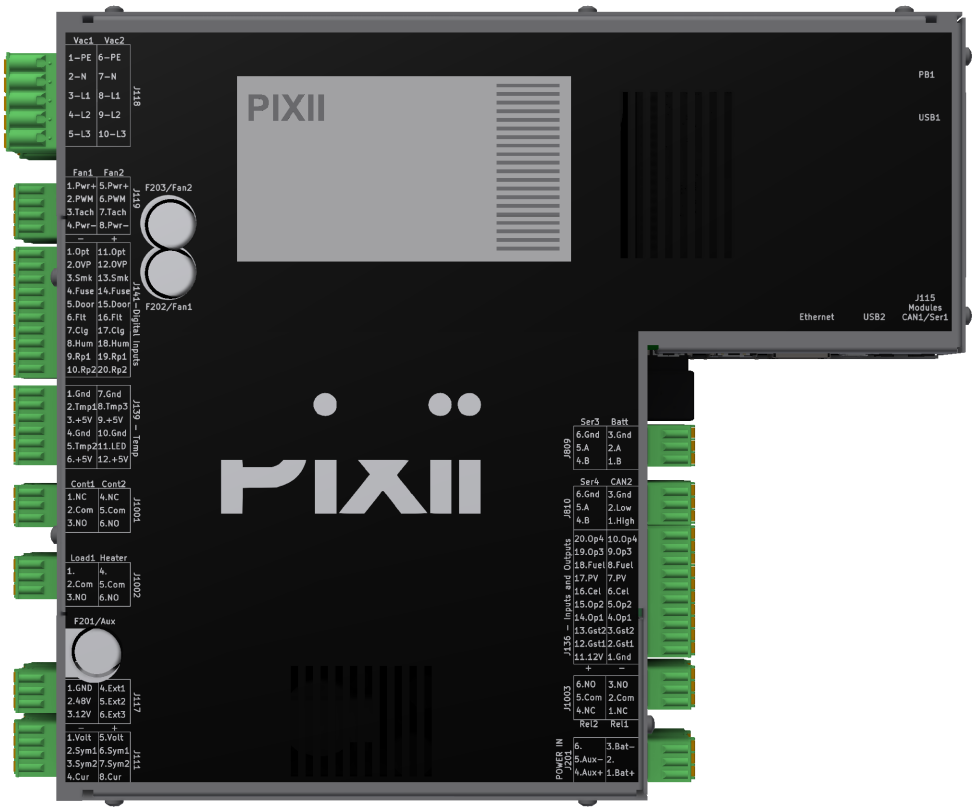

Figure 3.1 Front view

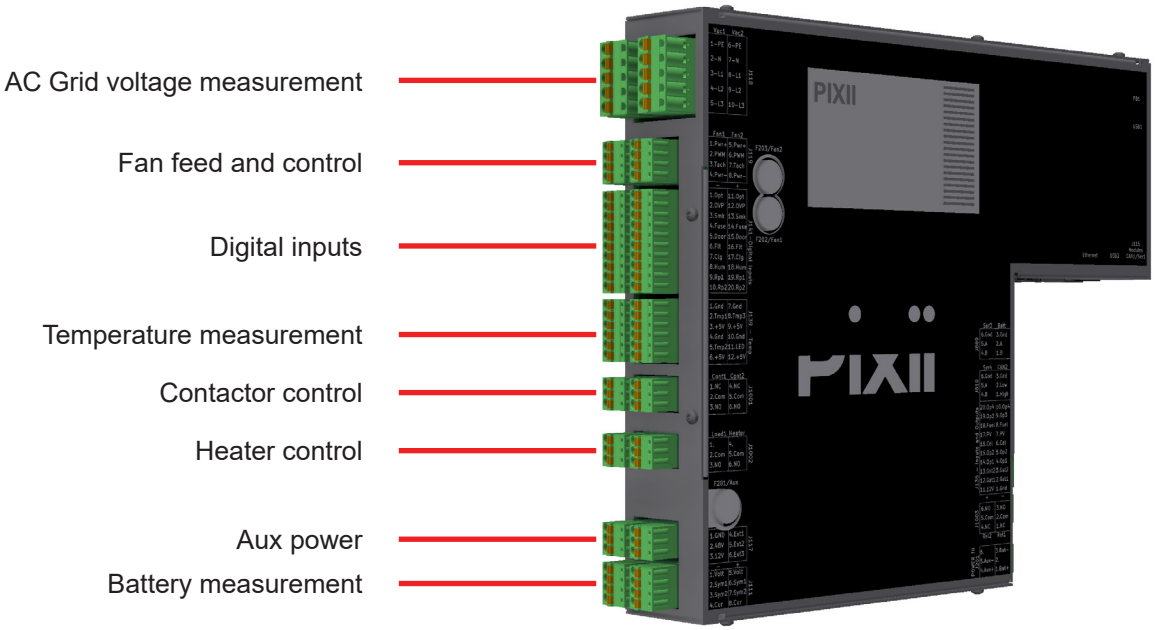

Figure 3.2 Left side view

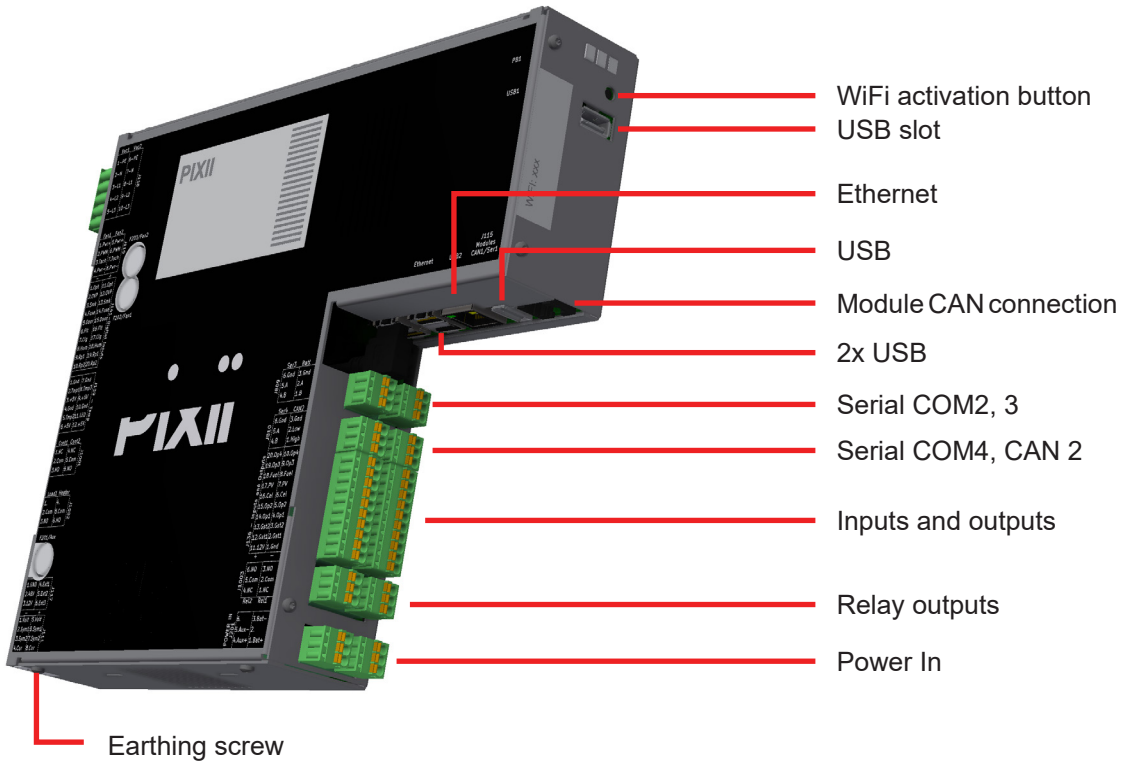

Figure 3.3 Right side view

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4 Preparation

NOTE:
Keep removed fixings and parts from this chapter in a safe place, you will need them later!

4.1 Top covers

Remove 2x top covers by releasing 4x M6x12 Torx screws for each bracket for better access.

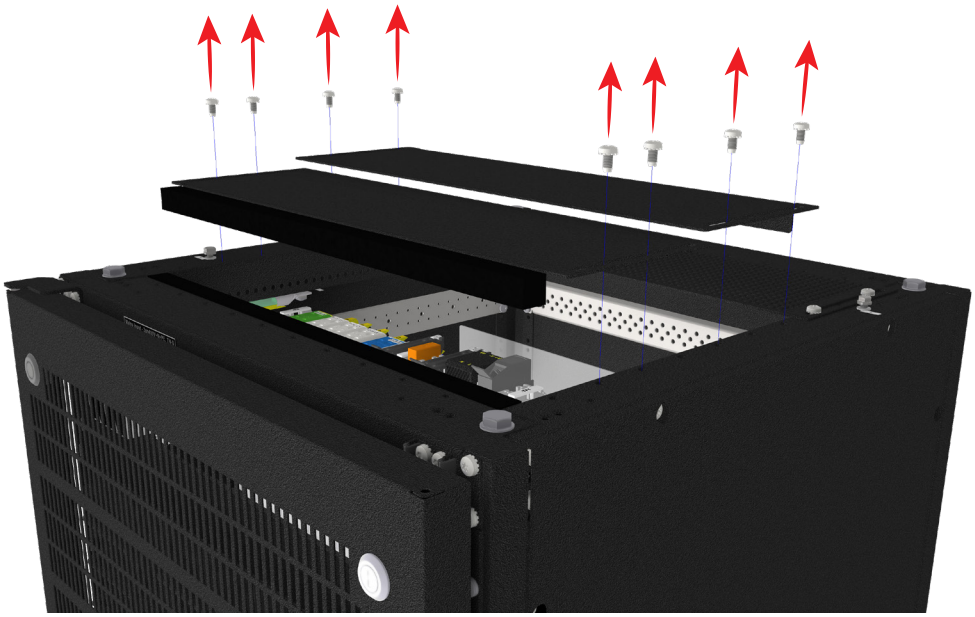

Figure 4.1 Removing top covers

4.2 Side wall

Remove left side wall by releasing 8x M6x8 Torx and 4x M6x12 serrated Torx screws.

Figure 4.2 Removing the side wall

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4.3 Fan covers

Release 4x M4 nuts and 4x M4 spring washers from the fan covers. Two (bottom nuts and washers) from the fan cover above the top fan and two (top nuts and washers) from the cover above the bottom fan.

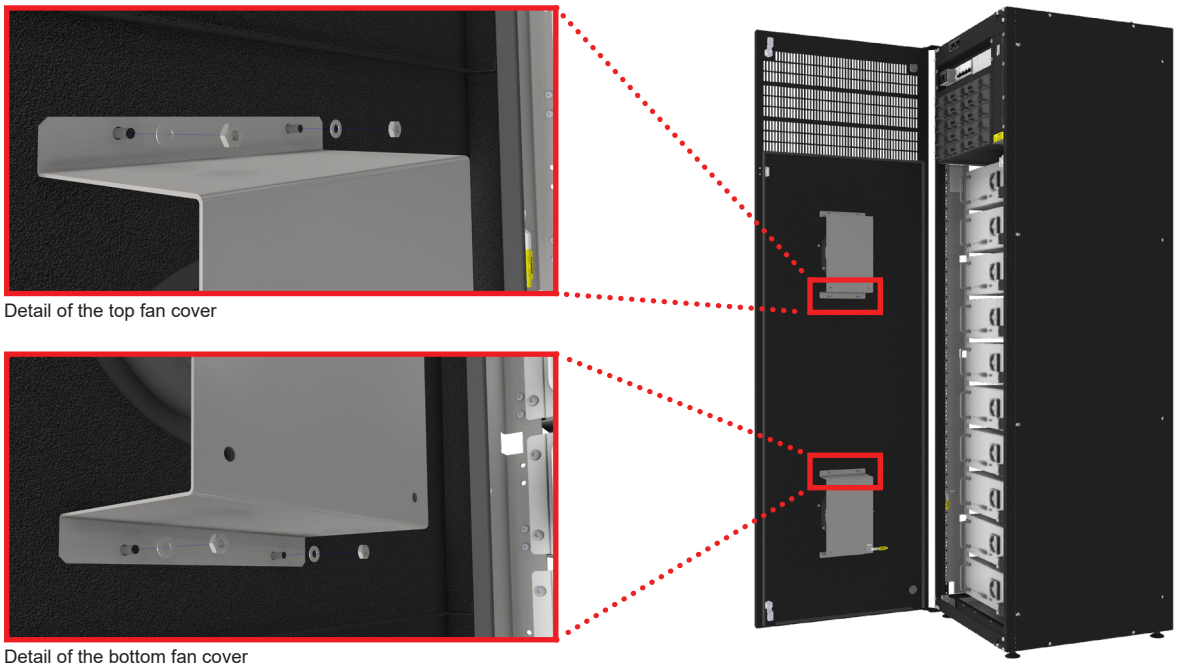

Figure 4.3 Fan covers adjustments

NOTE:
Keep the fixings on the safe place as you need them later!

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5 Mechanical installation

Insert pre-assembled mounting bracket with the Master Gateway controller (A1) to the studs and fix with the 4x M4 nuts and 4x M4 washers from the chapter *"4.3 Fan covers" on page 8*.

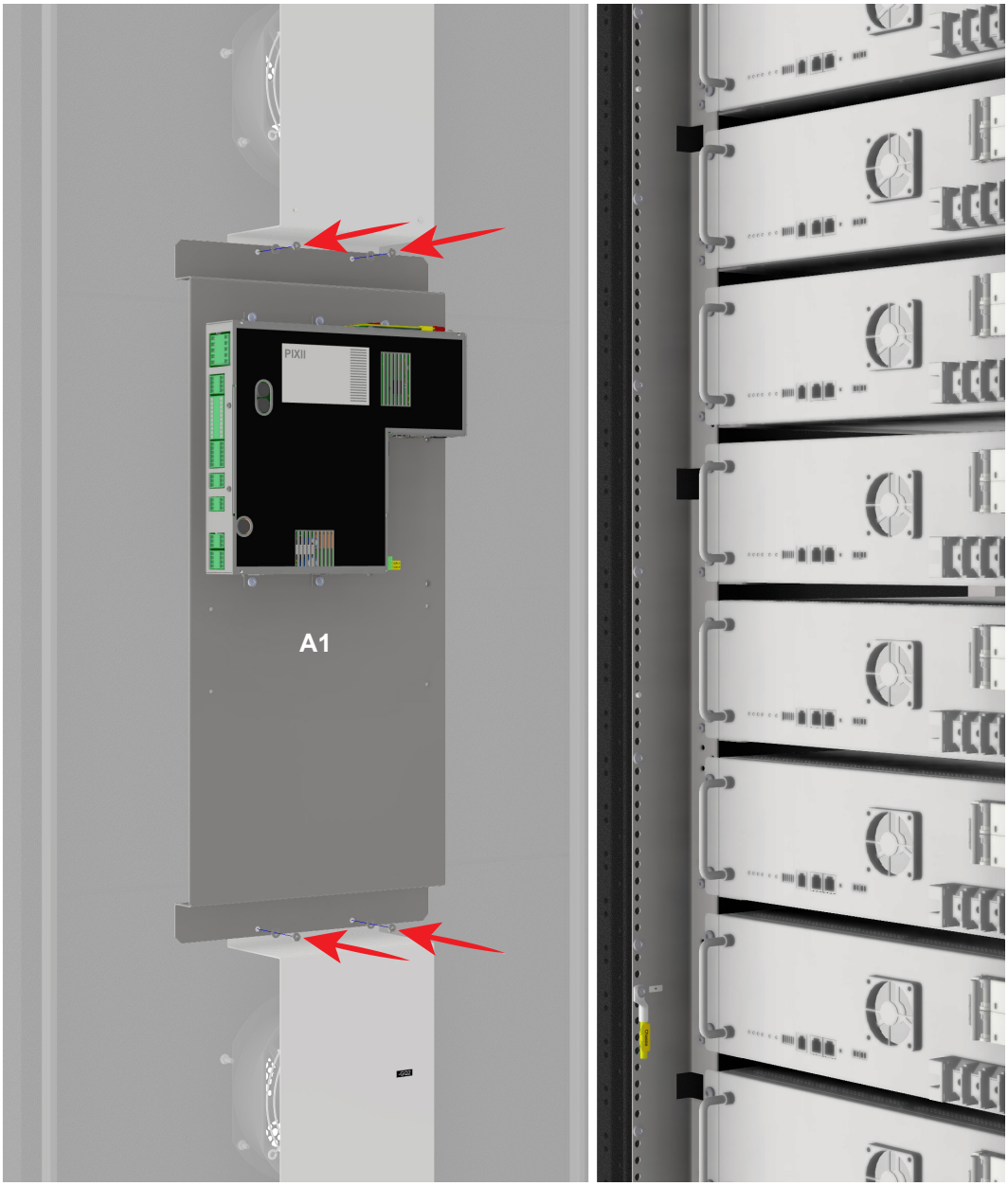

Figure 5.1 Installation of mounting bracket with Master Gateway controller

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6 Electrical Installation

6.1 Protective earth

Protective earth cable is already connected from Gateway to the mounting bracket (A1) from factory. Check if the connection is accurate and the screws on the both ends are not loose.

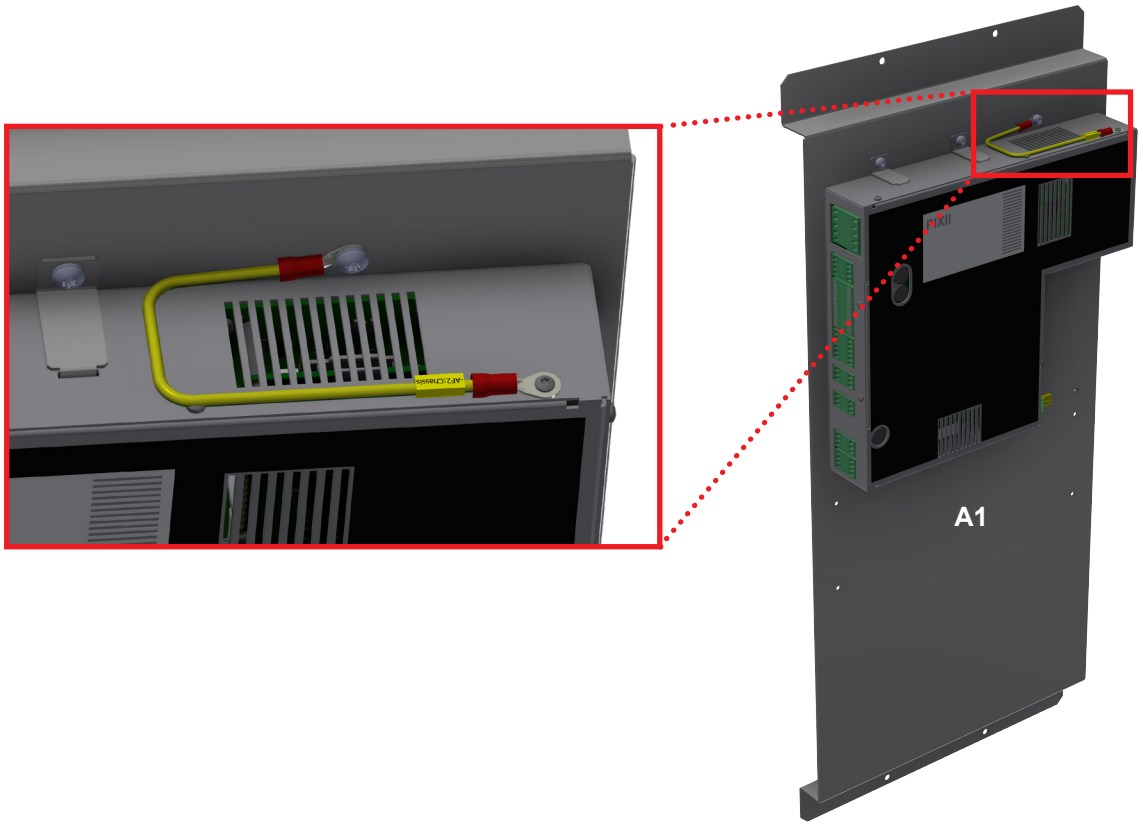

Figure 6.1 Protective earth cable

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6.2 Power cables

All power cables are covered in cable wrap and already connected to the Gateway from factory. They need to be interconnected with the cabinet.

1. Route cables to the opening in the middle of the cabinet and then to the top.

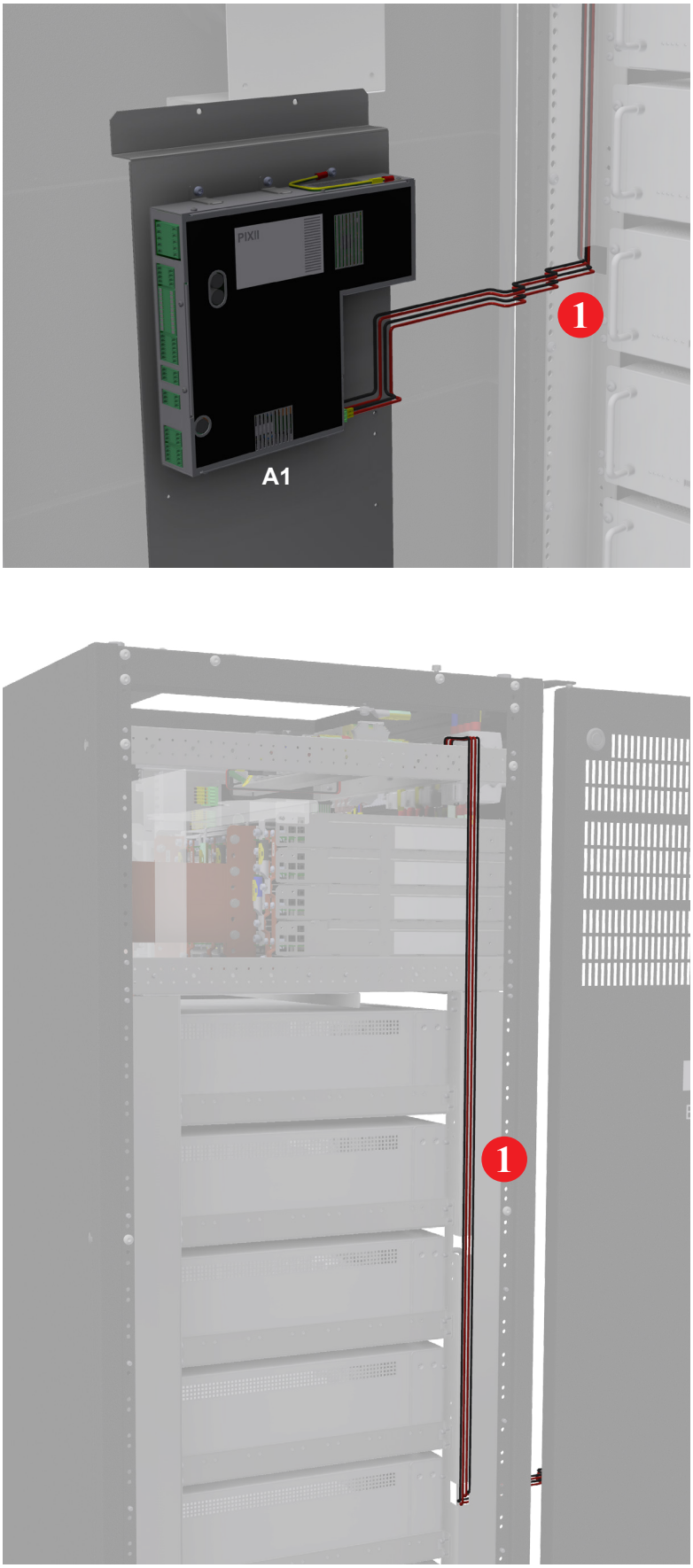

Figure 6.2 Routing of power cables

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2. Connect attached cable (-AF2:J201:1 - FC20:2, 2.5mm^2, red) to the existing cable from terminal -FC20:2 using splice connector (A4).

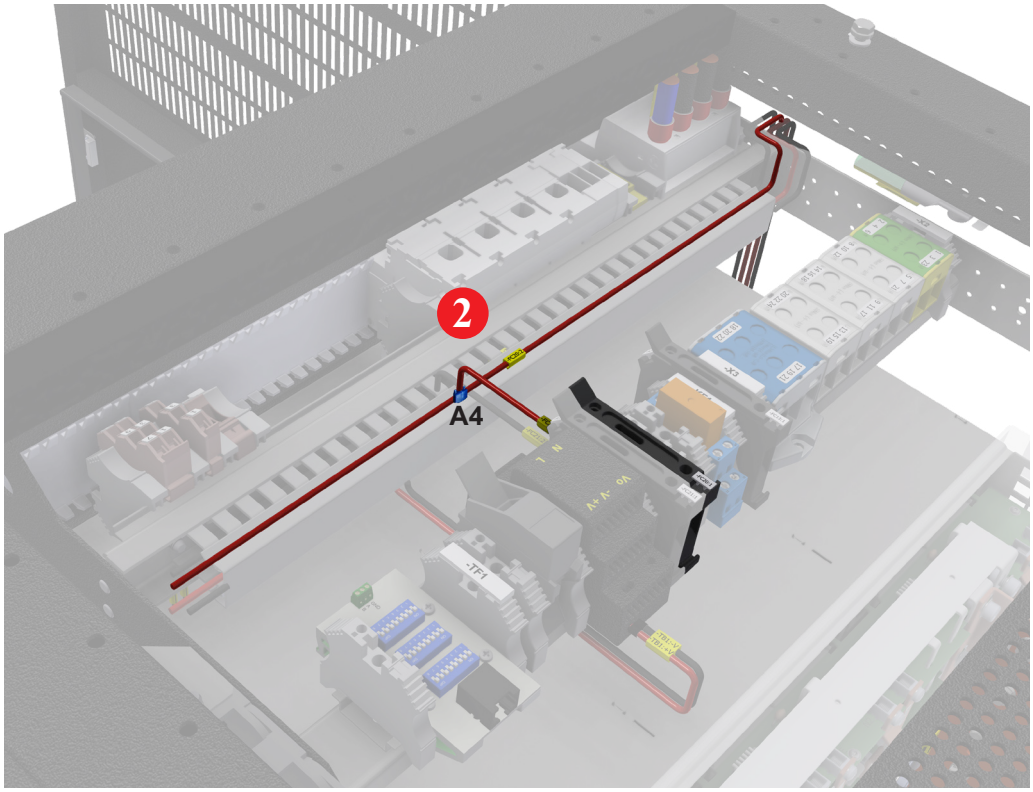

Figure 6.3 Cable -AF2:J201:1 - FC20:2

3. Connect attached cable (-AF2:J201:3 - FC21:2, 2.5mm^2, black) to the existing cable from terminal -FC21:2 using splice connector (A4).

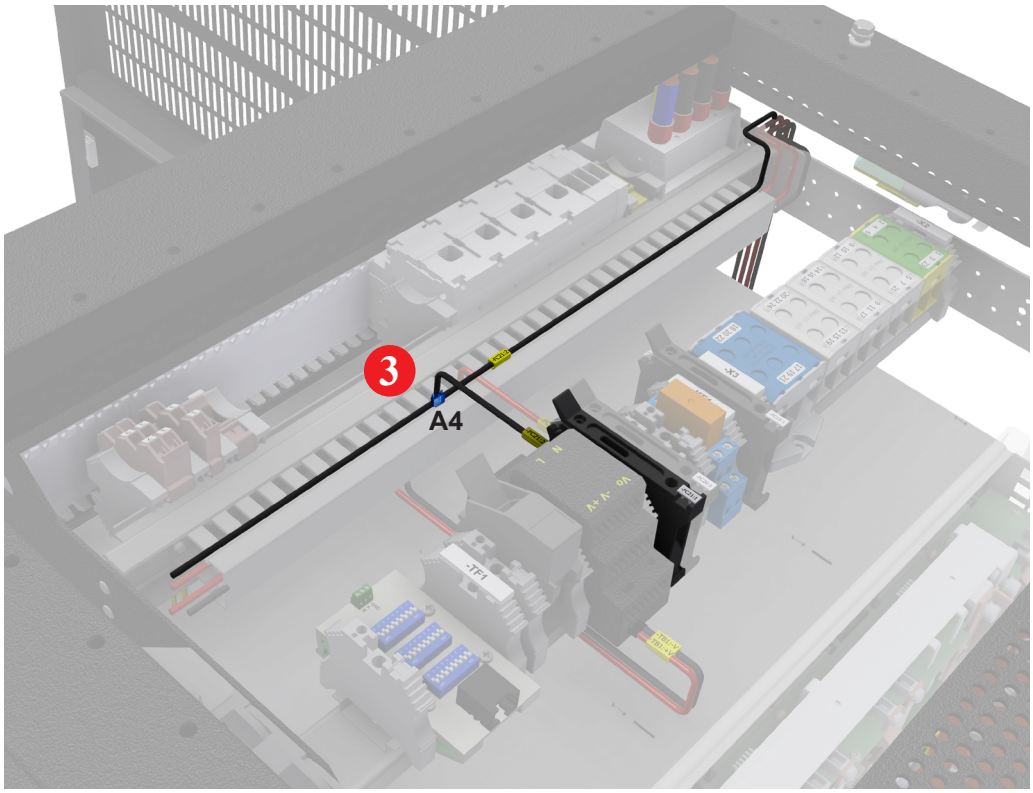

Figure 6.4 Cable -AF2:J201:3 - FC21:2

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4. Connect attached cable (-AF2:J201:4 - TB1:+V, 2.5mm^2, red) to the existing cable from terminal -TB1:+V using splice connector (A4).

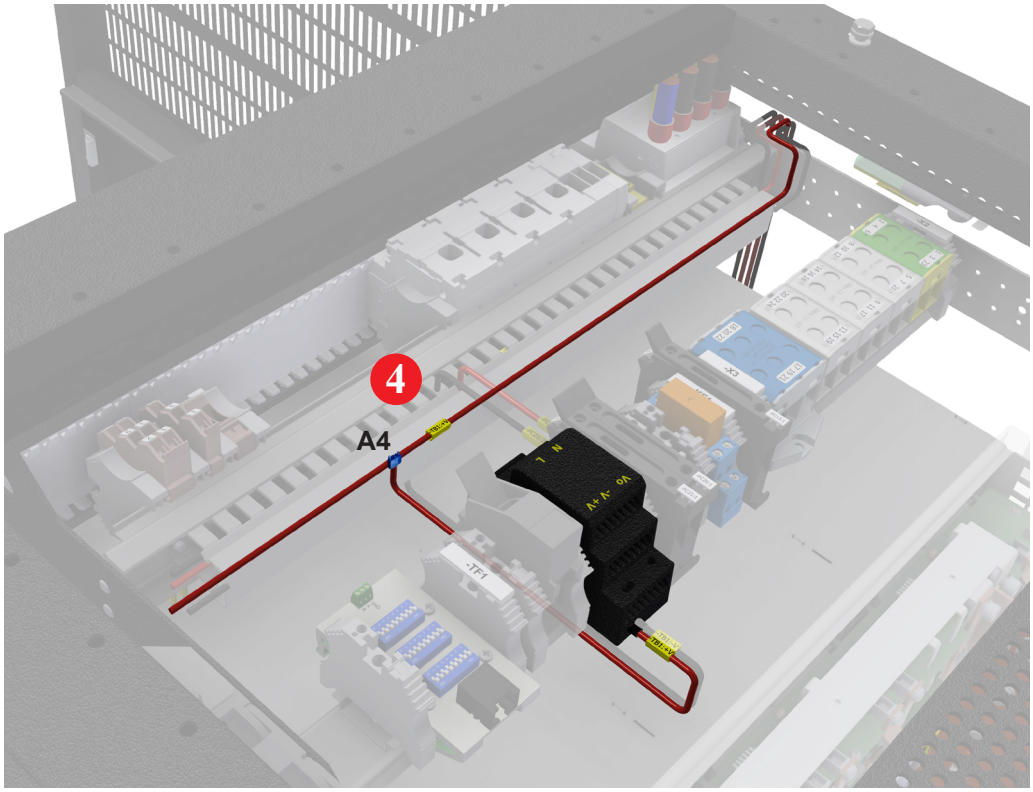

Figure 6.5 Cable -AF2:J201:4 - TB1:+V

5. Connect attached cable (-AF2:J201:5 - TB1:-V, 2.5mm^2, black) to the existing cable from terminal -TB1:-V using splice connector (A4).

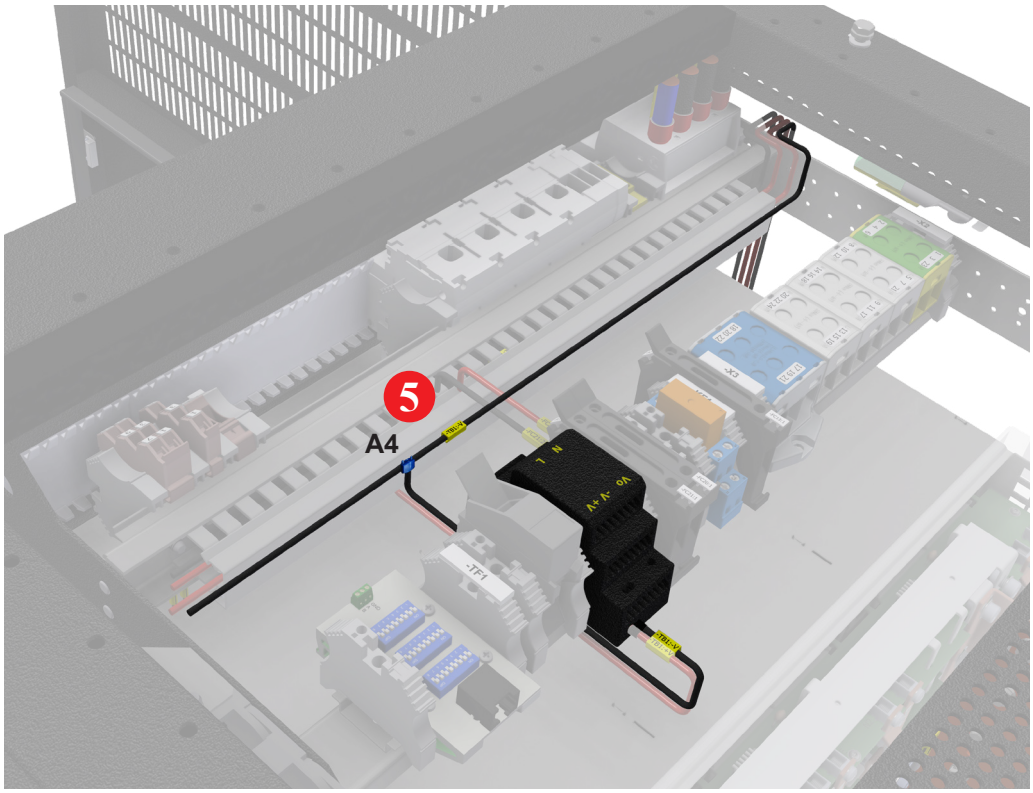

Figure 6.6 Cable -AF2:J201:5 - TB1:-V

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6.3 Ethernet

6.3.1 From additional Gateway

1. Insert ethernet cable (not supplied) to the additional Gateway. Route the cable along the power cables to the top of the cabinet.
2. Plug the second end of the cable into the switch (not supplied).
3. Use 5x sticky cable holder (A2) to fix all cables in the position.

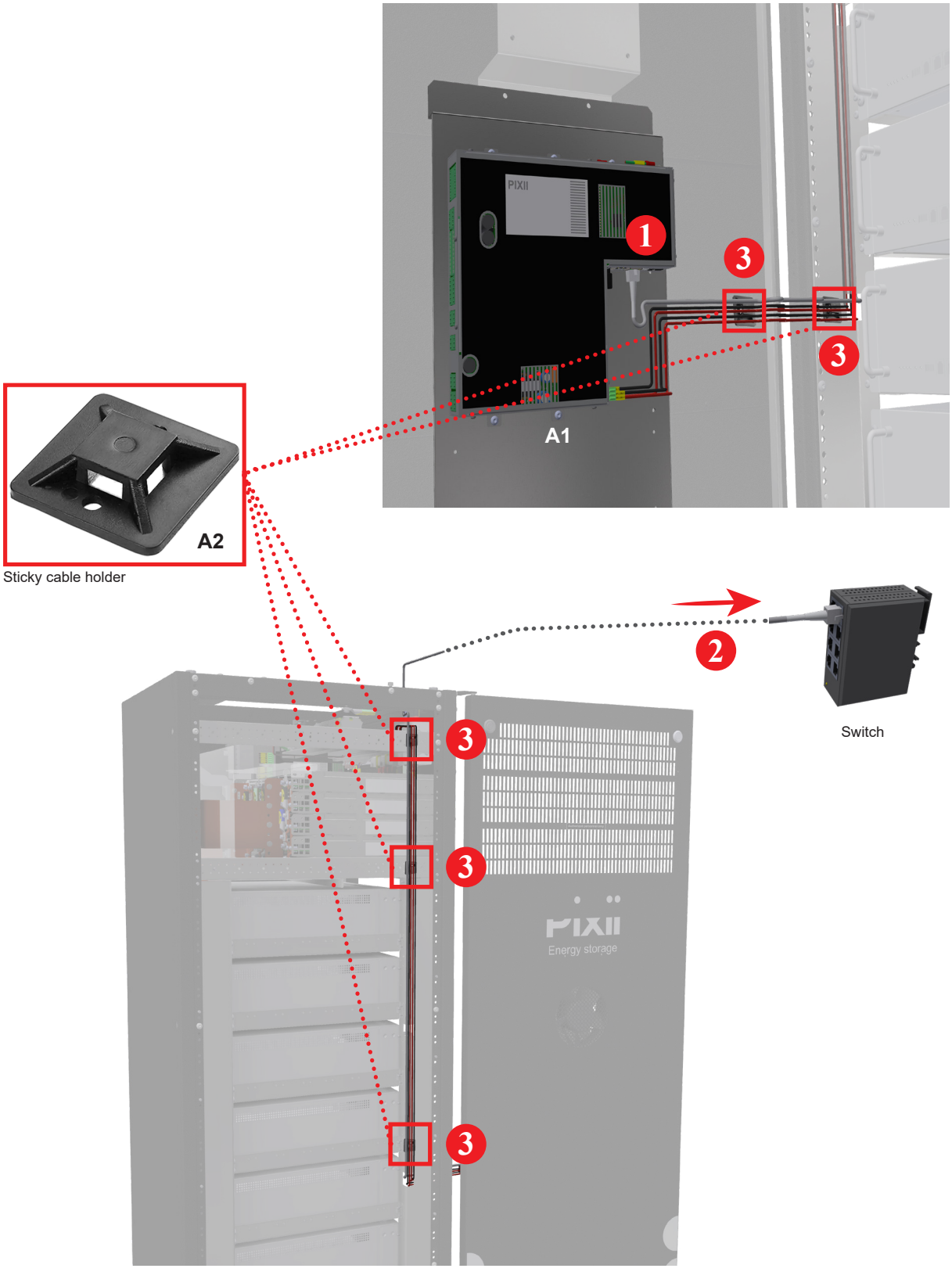

Figure 6.7 Ethernet cable from additional Gateway

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6.3.2 From existing Gateway

Ethernet port of the existing Gateway is extended to the port -X20.

1. Plug ethernet cable (not supplied) into the port -X20:2.
2. Plug the second end of the cable into the switch (not supplied).

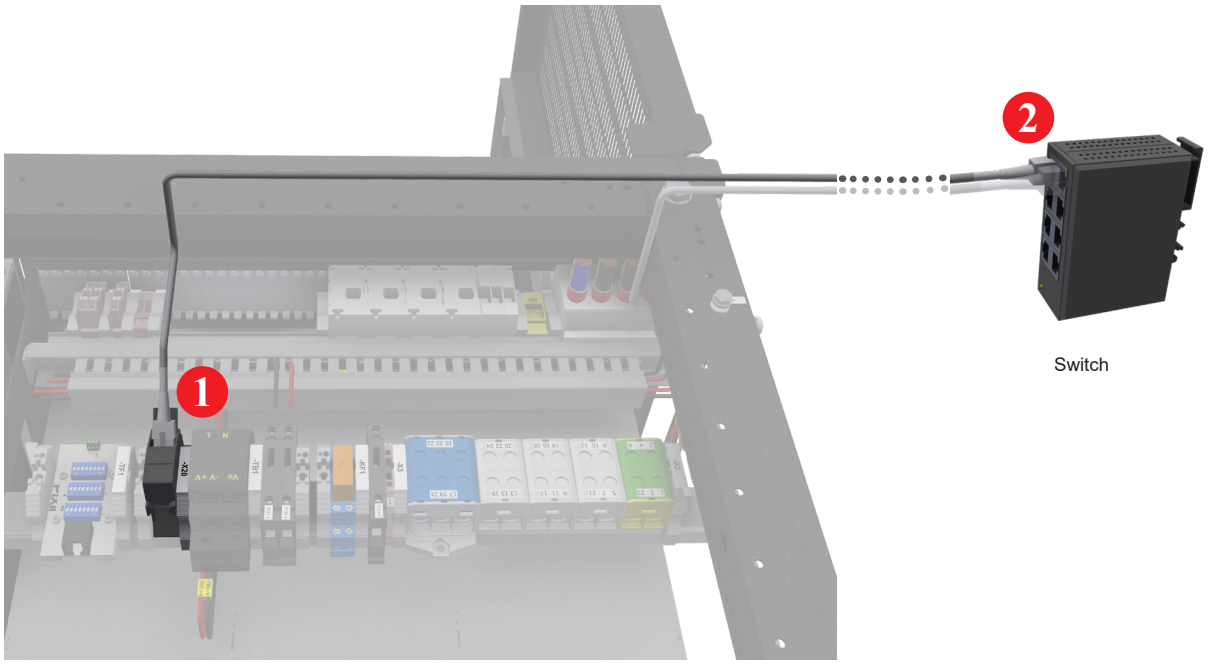

Figure 6.8 Ethernet cable from existing Gateway

6.4 USB flash disc

Insert attached USB flash disc (A5) to the USB port in the Gateway controller.

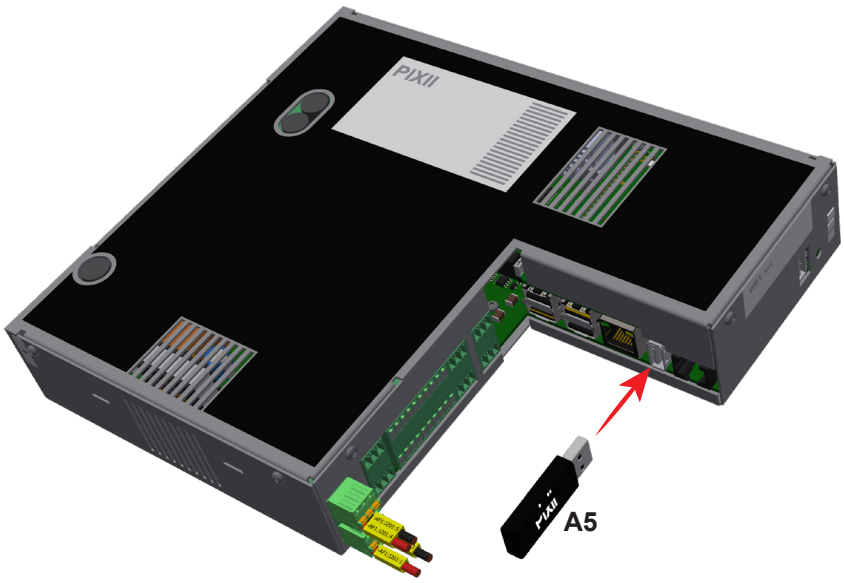

Figure 6.9 Inserting the USB flash disc

7 Finalization

After successful installation of the kit, mount back top covers and side wall. For more information, see the chapter *"4 Preparation" on page 7.*

For proper function of 2nd Gateway, see configuration guides or contact Pixii for detailed information.

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