User Manual
ASSA ABLOY IoT Gateway
Generation 1.5

ASSA ABLOY
Entrance Systems

Experience a safer
and more open world

CONTENTS - Original instructions

Requirements for ASSA ABLOY IoT Gateway

Make sure that the minium requirements are met. ASSA ABLOY IoT Gateway will not function properly outside of minimum requirements.

- **ASSA ABLOY Revolving doors operators** with CDC500 control system and IoT Gateway.
  See installation drawing 1022236 for minimum software version in IoT Gateway.
- **ASSA ABLOY Swing door operators** with IoT Gateway **and** GPIO addon.
  See installation drawing 1021699 for minimum software version in IoT Gateway.
- **ASSA ABLOY Sliding door operators** with software 4.0 (or higher) and IoT Gateway. Minimum software release in sliding door operator modules as following

Release	Versions					
SW 4.0	MCB	MC	ER	IOU	OMS B	
	11.4.17.2	12.4.17.2	1.1.17.2	7.5.17.2	6.2.17.2	
SW 5.0	MCB	MC	ER	IOU	OMS B	OMS S
	12.4.17.3	13.4.17.2	1.1.17.3	8.5.17.2	7.2.17.2	1.3.17.2, 1.4.17.2, 1.4.17.3

Technical specification ASSA ABLOY IoT Gateway Generation 1.5

|	
Manufacturer:	ASSA ABLOY Entrance Systems AB
Address:	Lodjursgatan 10, SE-261 44 Landskrona, Sweden
Type:	ASSA ABLOY IoT Gateway Generation 1.5
Dimensions:	190 mm x 100 mm x 40 mm (with addition of one external antenna)
Enclosure box:	Fire retardant ABS plastic
Compatible cables:	Category 5 (Cat 5) or Category 6 (Cat 6) twisted pair Ethernet cable
RJ45 connector:	Maximum 15 W
RJ22 connector:	Maximum 1 W consumer
Main power source:	24V AC or 24V DC
Ambient temperature:	0 °C to +50 °C
Degree of protection:	IP40

Wireless Communication Interface and Frequency Bands

For the wireless interface a 4G/ 3G/ 2G cellular modem is used. This modem has a USB 2.0 interface and the IoT Gateway uses two different variants of the modem for European and American installations.

The following table shows the frequency bands used by the two variants of IoT Gateway Generation 1.5 (CE for Europe and US for America).

Frequency Bands\Gateway Variant	IoT Gateway Generation 1.5 CE	IoT Gateway Generation 1.5 US
GSM (3GPP Release 6) LB: Power Class 4 (+33dBm) HB: Power Class 1 (+30dBm)	B3, B8	B2, B5
UMTS (3GPP Release 8) Power Class 3 (+24dBm)	B1, B8	B1, B4, B5
LTE (3GPP Release 9) Power Class 3 (+23dBm)	B1, B3, B7, B8, B20	B2, B4, B5, B7

IoT Gateway Generation 1.5 Parts identification
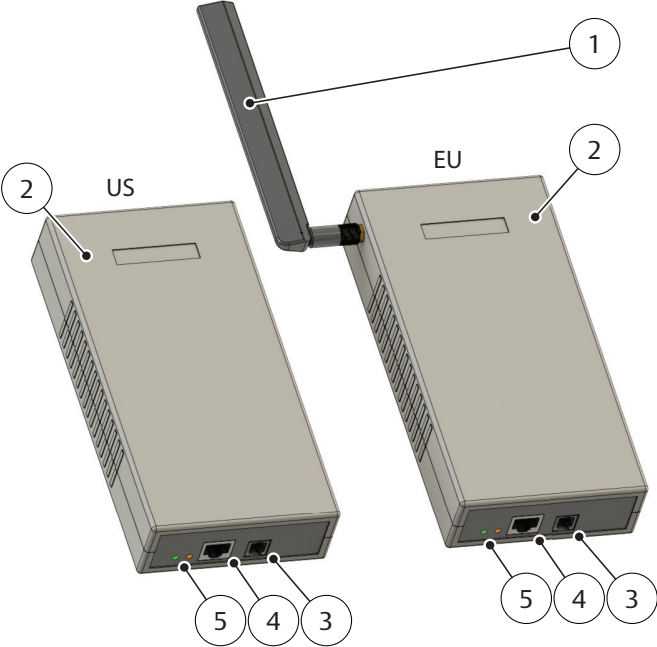
1   Antenna
2   Enclosure box
3   RJ22 connector
4   RJ45 connector
5   Green LED= Power, Yellow LED= Status

Instructions for safe operation

- Failure to observe the information in this manual may result in personal injury or damage to equipment.
- Do not use the equipment if repair or adjustment is necessary.
- Disconnect supply when cleaning or other maintenance is to be carried out.

Intended use

The ASSA ABLOY IoT Gateway Generation 1.5 (referred to as IoT Gateway in this manual) connects automatic pedestrian doors to ASSA ABLOY Internet-based services, for remote monitoring, through a cellular wireless modem.

The IoT Gateway is easily installed with automatic pedestrian doors, and offers a high quality service in terms of high availability and low need for maintenance.

The IoT Gateway is powered through its cable connection to the door control unit or through an external power adapter, it must be installed in an indoor environment and located at a maximum height of 2 meter from the floor or underlying surface. Wherever possible, it is recommended to place the IoT Gateway in consideration of the wireless performance. For instance, avoid areas with high radio signal attenuation, and do not place the antenna close to other objects.

The IoT Gateway supports connection of peripheral devices, e.g., sensors or indication devices, through an I2C bus (RJ22 connector). For such application, the cable connection must be less than 3 meter.

The device contains no batteries or moving parts.

Electronic equipment reception interference

The equipment generates and uses radio frequency energy and if not installed and used properly, it may cause interference to radio, television reception or other radio frequency type systems.

If other equipment does not fully comply with immunity requirements, interference may occur.

There is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Relocate the receiver with respect to the equipment.
- Move the receiver away from the equipment.

For additional suggestions, contact the regional ASSA ABLOY IoT Gateway Product specialist, Technical manager or authorized and certified personnel.

Environmental requirements

ASSA ABLOY Entrance Systems products are equipped with electronics and may also be equipped with batteries containing materials which are hazardous to the environment. Disconnect power before removing electronics and battery and make sure it is disposed of properly according to local regulations (how and where) as was done with the packaging material.

Product liability

According to regulations, the following are the responsibility of the owner or caretaker of the equipment

- that the equipment operates correctly, so that it gives sufficient protection in regard to safety and health
- that the equipment is operated and regularly maintained, inspected and serviced by someone with documented competence in the equipment and in applicable regulations
- that the closing force is appropriate for the door size on fire-approved door systems (when applicable).

Pre-installation

General tips/Safety concerns

In all instances, where work is being done, the area is to be secured from pedestrian traffic, and the main power removed to prevent injury.

- The installation must be performed by authorized and certified personnel.
- Make sure that the power is off before installing.
- Check the cellular network at the installation site before set-up. To do this, check if you can access internet on a 4G enabled smartphone at the given location.
- Do not mount the IoT Gateway on metal, near metal, on top of the operator or inside a metal box. Only mount the IoT Gateway indoors, on a wall next to the operator, with the cable outlets facing downwards and the antenna pointing upwards.
- Do not use a flat Ethernet cable, only use a Category 5 (Cat 5) or Category 6 (Cat 6) twisted pair Ethernet cable.
- See the operators Installation and Service Manual for how to configure the interconnection, if more than one RJ45 connectors will be used in the installation.

It is not possible to replace an ASSA ABLOY operator component with a component from a different brand.
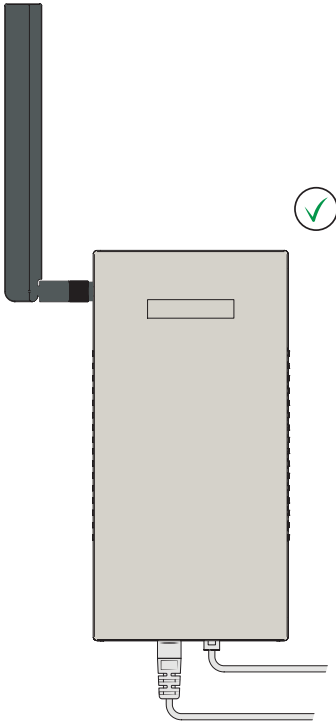
ASSA ABLOY IoT Gateway Installation

1 Disconnect the power source to the automatic pedestrian door.
2 Mount the antenna (EU version only).
3 Screw the brackets onto the IoT Gateway enclosure box, and fix the unit onto the wall using the outer holes on the brackets.

M3 x 25mm
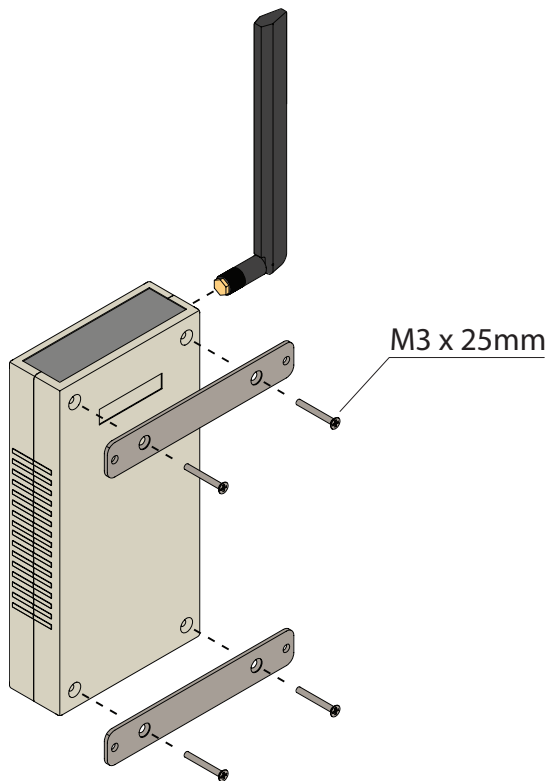
4   Specific requirements for wall placement of IoT Gateway

Mount the IoT Gateway on a wall, beside the operator, and located at a maximum height of 2 meter from the floor or an underlying surface. Place the IoT Gateway with the cable outlets facing downwards and the antenna pointing upwards.

5   Connect IoT Gateway with automatic pedestrian door.

- **ASSA ABLOY Revolving door operator**
  Refer to installation drawing 1022236.
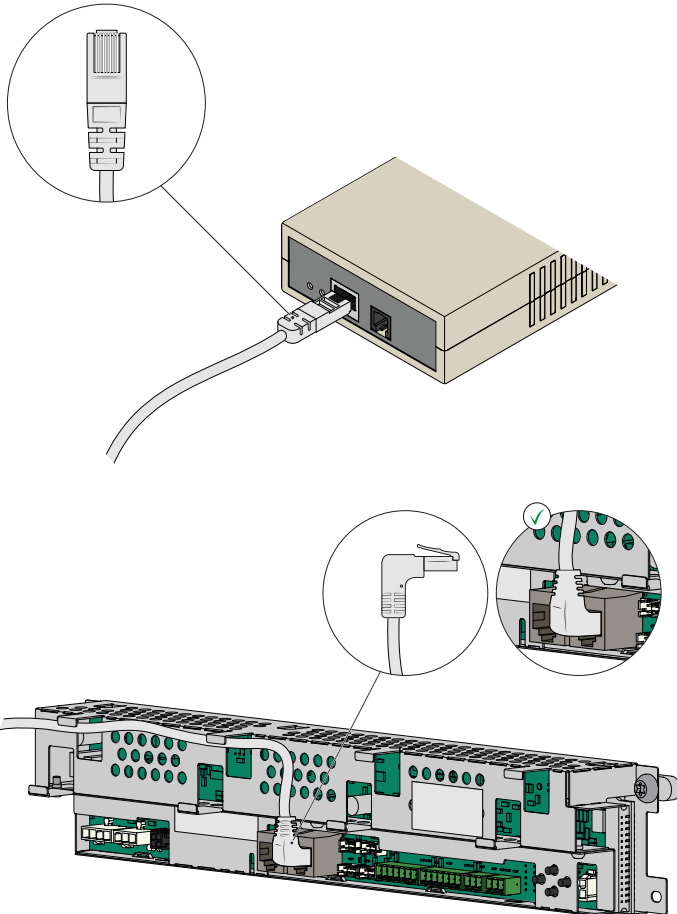- **ASSA ABLOY Swing door operator**
  Refer to installation drawing 1021699.
- **ASSA ABLOY Sliding door operator**
  Connect the IoT Gateway to the automatic pedestrian door using the Category 5 (Cat 5) or Category 6 (Cat 6) twisted pair Ethernet cable.
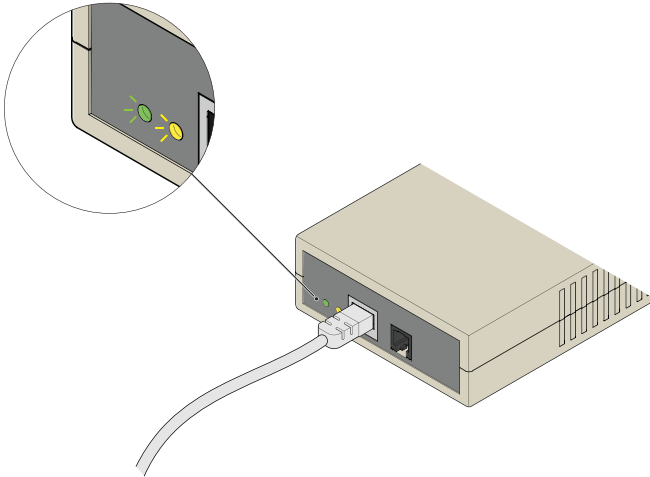
Make sure that the cable does not interfere with any moving parts in the operator.

6   Reconnect the power source to the automatic pedestrian door.

7   When power is connected, the IoT Gateway will start up. After approx. 60 s it attempts to connect to internet, and the yellow LED on the unit will start flashing. The IoT Gateway is connected to the automatic pedestrian door when the LED stop flashing and show a steady yellow light.

ASSA ABLOY IoT Gateway LED Indication table

LED	LED description
Steady green	Waiting for connection and program start-up
Steady green, with a fast (0,5 s) yellow flash	Program is starting
Steady green, with a slow (1 s) yellow flash	Connected to internet service
Steady green and steady yellow LED	Program start-up is completed, and IoT Gateway is connected to the automatic pedestrian door
Steady green, with a continuous rapid (0,25 s) yellow flash	General Error
Steady green, with a rapid (0,25 s) yellow flash followed by a long pause (1 s)	Network connection error
2 rapid (0,25 s) yellow flash, followed by short pause (0,5 s)	Test loop active warning. Turn power OFF, wait 15 s, turn power ON
No light	Connection unsuccessful, the IoT Gateway will automatically try to connect to the internet service until a successful connection is achieved. No action is necessary, just wait for the LEDs to show again. This process might take a few minutes.

Declaration of conformity

ASSA ABLOY
Entrance Systems

Experience a safer
and more open world

We　　　　　**ASSA ABLOY Entrance Systems AB**
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

declare under our sole responsibility that the type of equipment:
ASSA ABLOY IoT Gateway Generation 1.5

complies with the following directives:

2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS)
2014/53/EU Radio Equipment Directive (RED)

Health and safety (Art. 3(1)(a)): EN62311:2008
EN 62368-1:2014/AC:2015

EMC (Art. 3(1)(b)):　　　　EN301 489-1 v2.1.1
EN301 489-52 v1.1.0 (draft)

Spectrum (Art. 3(2)):　　　EN301 908-1 v11.1.1
EN301 511 v12.5.1

Compilation of technical file:
Anders Forslind
ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Place	Date	Signature	Position
Landskrona	2021-08-18	Markus Kast	Head of Product Area Door Automation

ASSA ABLOY Entrance Systems is a leading supplier of entrance automation solutions for efficient flow of goods and people. Building on the long-term success of the Besam, Crawford, Albany and Megadoor brands, we offer our solutions under the ASSA ABLOY brand. Our products and services are dedicated to satisfying end-user needs for safe, secure, convenient and sustainable operations. ASSA ABLOY Entrance Systems is a division within ASSA ABLOY.

assaabloyentrance.com

ASSA ABLOY

ASSA ABLOY Entrance Systems

Tel: +46 10 47 47 000
info.aaes@assaabloy.com
assaabloyentrance.com