



# Hardware Installation Instructions

# Revision History

<b>Version</b>	<b>Date</b>	<b>Changes</b>
1.0	2019/01/08	Initial Internal Release

# Supported Hardware

Kisi supports the following Allegion devices:

## Locks

- [Schlage NDE Networked Wireless Locks](#)

## Gateways

- Schlage GWE Gateway

# Recommended Support Material

This document works under the assumption that that both the Schlage NDE Locks and the Kisi Controller 1.1 are already installed. If not, you can refer to the following guides:

- [Schlage NDE Wireless Locks Installation Instructions](#)
- [How to Install the Schlage NDE Lock Instruction Video](#)
- [Kisi Getting Started - Installation Guide](#)

Additionally, we recommend having the following guide at hand, even though the relevant information from it will be also available in this document:

- [Schlage GWE installation instructions](#)

# Hardware Limitations

The Kisi Controller Pro 1.1 can be connected to a single Schlage GWE gateway.

The Schlage GWE gateway can handle up to ten Schlage NDE wireless lock.

In consequence, a Controller - Gateway pair can manage up to ten Schlage NDE wireless locks.

# Required Hardware Connections

Figure 3.1 shows all the terminals of the Schlage GWE gateway.

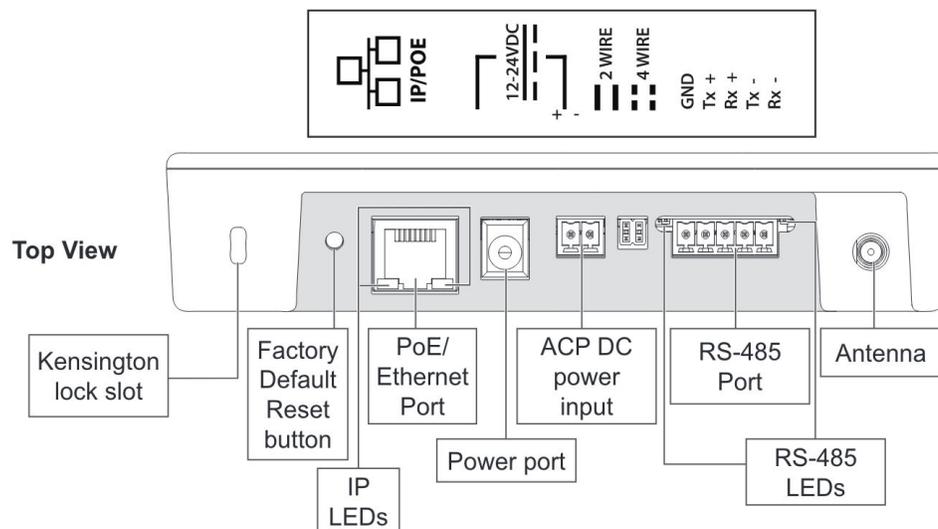


Figure 3.1: Schlage GWE terminals

## Power

The Allegion GWE gateway can be powered by the following sources. **Only one can be used at the time:**

- Power over Ethernet (PoE)
- Supplied 24V power adapter
- ACP DC power input

For convenience, we recommend using the 24V power adapter supplied with the gateway, but installer can any of the other alternatives as they see fit.

## Power over Ethernet (PoE)

With the PoE option, power is supplied through Ethernet port. Category 5e cabling is required and the facility must have compatible powered Ethernet connection.

To power the gateway, plug the Ethernet cable in the Ethernet port.

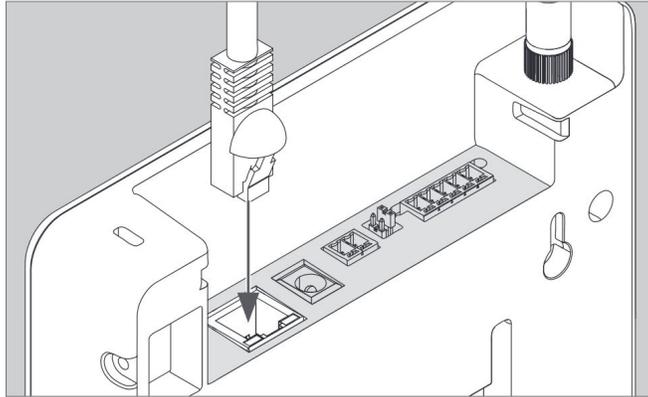


Figure 3.2: PoE connection

## Supplied 24V Power Adapter

To power the gateway with the supplied power adapter, plug the power adapter into the wall socket, and then plug the power cord into the socket.

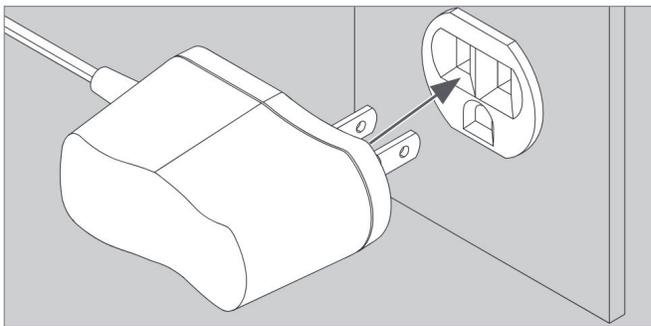


Figure 3.4: Socket - Adapter connection

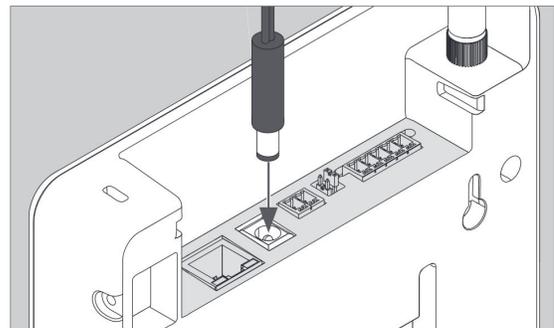


Figure 3.5: Adapter-Gateway connection

## ACP DC Power Input

To power the gateway through the ACP DC power input, you can choose between a 12V DC power source of at least 330 mA, or 24V of at least 100ma. To connect the power source, plug the positive terminal (12V or 24V) to the port with the plus sign (+) and the ground terminal (GND) to the port with a negative sign (-).

## Gateway - Controller Connection

To connect the Schlage GWE gateway to the Kisi Controller Pro 1.1, we'll use the RS-485 port. The Schlage GWE gateway RS-485 port has five signals: GND, Tx+ Rx+, Tx- and Rx-. The Kisi Pro Controller RS-485 port has three signals: A, B and GND.

To connect the two, plug a cable between the following signals

Gateway	Controller
GND	GND
Tx-	A
Rx+	B

Figure 3.4 shows a schematic of this connection:

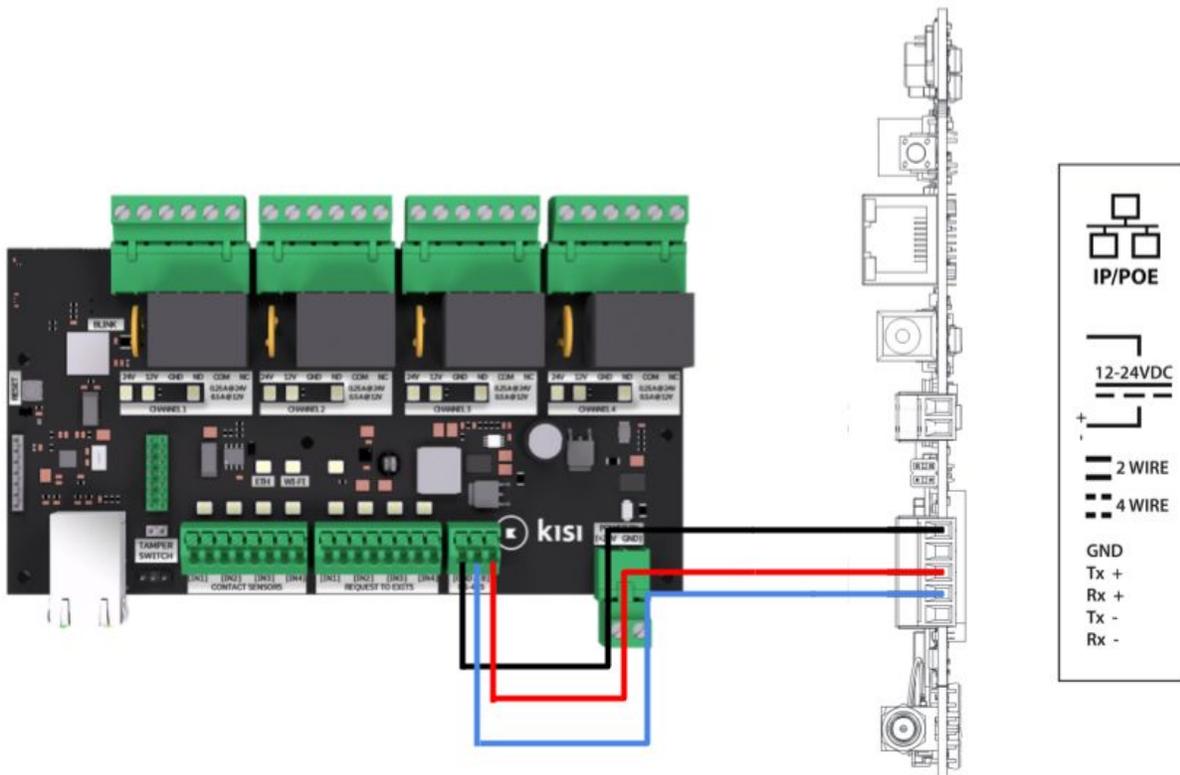


Figure 3.6: Gateway - Controller connection

# Final Comments

## Connection Order

The order of the connections of the whole system, does not affect its behaviour. The installer can power up the gateway, the controller, and connect them, in any order that is convenient to them.

## Gateway Location

The Gateway communicates wirelessly with the locks via Bluetooth. Wireless signals are diminished by walls, distance, metal objects or barriers. Considering the following when placing the Gateway:

- Communication may be possible up to 100 feet (30.5 meters) when clear line-of-sight is available.
- Do not mount the locks and Gateway on different floors. The signal may be degraded and functionality could be severely limited.
- Do not mount the Gateway on a metal surface. A separation of at least one inch must be maintained in all directions from any metal.
- Signal will not pass through metal walls or metal mesh in the walls (stucco).
- The Gateway wireless antenna should be vertically oriented.