Flush Mount SIP Access Control Intercom with Relay

Installer’s Guide

This step-by-step guide will help you install your Wahsega Labs flush mount SIP access control intercom with integrated relay.
What’s in the Box

A. (1) VoIP intercom assembly
B. (4) ½” Phillips head faceplate screws for ¼” drywall
C. (4) 1” Phillips head faceplate screws for ½”+ drywall
D. (1) 3-pin male connector for relay
E. (1) 4-pin male connector for request to exit & door status monitor
What You Will Need

- **PoE power**
  - Power-over-Ethernet (PoE) injector or
  - PoE capable switch

- **Remote communication point**
  - SIP server or
  - Peer-to-peer device to call

- **Network cable**
  - Cat5e or Cat6, max 100m

- **Screwdrivers**
  - Small flat head screwdriver
  - Phillips head screwdriver

- **Electrical box**
  - 4-11/16" square back box, *minimum 2-½” deep*, with multiple conduit knockouts

- **Conduit and connectors**
Request to Exit and Door Latch Wiring

The access control intercom provides an integrated relay with connections for controlling magnetic door latches, request to exit (REX) functionality for buttons and/or exit motion sensors as well as door closed status monitor.
Auxiliary Output (Door Control)

The connector for Auxiliary Output is a 3-pin male connector, wired to a Form C relay (SPDT), used to connect and control door latches, gates and other points of entry. Its contacts are rated for 30VDC or 270VAC at 3A.

- **Pin 1** is Normally Open (NO).

- **Pin 2** is Common (COM).

- **Pin 3** is Normally Closed (NC).
Door Status Monitor & Request to Exit

The connector for Request to Exit (REX) and door status monitor is a 4-pin male connector used to monitor door open/closed status as well as the REX button/motion sensor functionality.

- **Pin 1:** Door status monitor line. It can be wired as a ground/open button or switch. It is pulled up by 4.7k to 3.3V and wired through 220Ω. Connect to the NO of an SPDT. \(^\text{NOTE 1}\)

- **Pin 2:** Door status ground reference pin. Connect to Common.

- **Pin 3:** Request to exit button and/or exit motion sensor monitor line. It can be wired as a ground/open button or switch. Connect to the NO of an SPDT connection. \(^\text{NOTE 2}\)

- **Pin 4:** REX ground pin. Connect to Common.

\(^\text{NOTE 1}\): Door status monitor has a detection de-bounce period of 300 milliseconds minimum. Otherwise, detection is not guaranteed.

\(^\text{NOTE 2}\): The REX has a detection de-bounce period of 130 milliseconds minimum. Otherwise, detection is not guaranteed.
Door Status Monitor & REX Connector

The REX input can be wired in parallel with an REX button and an exit motion sensor. Both REX and door status inputs go to Normally Open (NO) connections on corresponding devices.
Flush Mount Installation
1. Install 4-11/16” square back box *(minimum 2.5” deep)* with multiple conduit knockouts. If using a 2.5” deep box with raised emboss or ground screw, make sure the raised portion is positioned at the top of the box. The bottom of the access control intercom needs at least 2.45” of clearance and will not fit in any other orientation.

![Diagram of access control intercom installation](image)

2. Conduit should be routed through a bottom or lower side knockout. Connectors should not protrude into the box more than 0.55” for bottom knockouts or 1/8” for lower side knockouts.

3. Following the instructions on [pages 4-9](#), connect low voltage wiring to terminal blocks for door access, request to exit and door status.

5. Before installing the faceplate, be sure to locate and note the access control intercom’s MAC address, which is printed on a white sticker on the rear of the circuit board.

6. Attach the access control intercom’s faceplate to the back box using the provided Phillips head screws.
Electrical Box Specifications

Dimensions

Length = 4 $11/16''$
Width = 4 $11/16''$
Depth = minimum 2 1/2''
Volume = min 49.4 in³

Images not to scale. Larger versions available at wahsega.com.
Dimensions

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Standards Compliant

The indoor SIP intercom meets or exceeds the following RF emissions standards.

- FCC 47 CFR Part 15 Subpart B
- Industry Canada ICES-003 Issue 5
- Cet appareil numérique de la classe A est conforme à la norme ICES-003 du Canada.

This product is designed & manufactured in the USA.

- ISO 9001:2008 certified factory
- ROHS Compliant
- Industrial Temperature -40C +85C.
Flush Mount
SIP Access Control Intercom
with Relay

WL-IC-FLMT-SIP-I-W-R
WL-IC-FLMT-SIP-INB-W-R
WL-IC-FLMT-SIP-I2B-W-R