

Wiegand reader bit-format reference

The controller must be told how to slice the reader's bit stream into a card number. Set the mode before you present a test card.

Companion sheet to <https://www.falco-ecom.com/wiegand-bit-formats>

Reader modes 01 to 08

MODE	FORMAT	WHAT THE CONTROLLER READS
01	Wiegand 26-bit (without facility code)	Last 5 digits of the EM card number
02	Wiegand 26-bit (with facility code)	First 8 digits, facility code included
03	Wiegand 34-bit (with facility code)	34-bit format with facility code
04	Wiegand 34-bit (without facility code)	34-bit format without facility code
05	Wiegand 42-bit (without facility code)	Extended format, card number only
06	Wiegand 34-bit, 5-digit card number	5-digit card numbers
07	Wiegand 32-bit, 5-digit card number	32-bit format with 5-digit card numbers
08	Wiegand 34-bit, 10-digit card number	Full 10-digit card number

Modes and wording as listed in the VAULT Site reader bit configuration reference.

Reader model to mode

READER	FORMAT IT USES	CONTROLLER MODE
ID W26	Wiegand 26-bit	Mode 1 (EM format)
IC W34	Wiegand 34-bit	Mode 3 (MIFARE format)
AY-701 / AY-800	26-bit or 34-bit, selected by the brown wire	The mode matching the card in use
AY-K150 keypad	4-bit keypad format, PIN or card plus PIN	Keypad mode

On the AY-701 and AY-800, EM mode leaves the brown wire unconnected; connecting it enables MIFARE. Confirm the reader type on the sticker on the back of the cover.

Setting the mode

1. Control Panel, then Tool & Settings, then RFID Reader Bit Configuration.
2. Select the mode for that reader, from the reader model and the card type at that door.
3. Program Reader Bits to write the setting to the controller.
4. Present a known credential and confirm the number in the event log is the card's real number.

Door record

DOOR	READER MODEL	CARD TYPE	MODE SET	PROGRAMMED BY	DATE

Grounded in Falco controller datasheets, VAULT Site support documentation and the Falco controller wiring diagrams. Model lists, pricing and project scoping:
<https://www.falco-ecom.com/contact-us>