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# EL5800

## IP Multi-Door Controller

Introducing the EL5800, a state-of-the-art IP-based controller designed to manage up to four doors and eight readers, all while supporting 10-digit card numbering for enhanced security. Powered by a robust ARM Cortex M3 32-bit MCU clocking in at 120 MHz, this device ensures swift and efficient operations. Its large flash memory allows for seamless in-circuit program modifications, complemented by ample battery-backed SRAM for rapid data access. Plus, with an SD card slot, data storage is both flexible and expandable.

The EL5800 stands out with its native LAN capabilities and an integrated web server, making it effortlessly accessible via standard web browsers. Its versatile input/output programming features empower you to implement custom control logic, perfect for sophisticated visitor management systems utilizing flap barriers or turnstiles.

we make your world secure

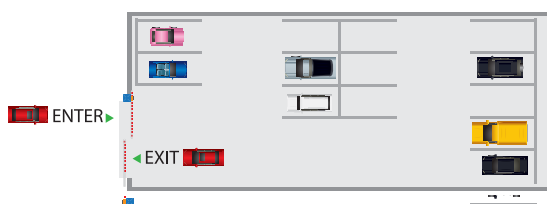
## Large Database

The EL5800 is a powerhouse, capable of storing up to 20,000 user ID card numbers and an equal number of transactions. By simply adding an SD card, you can dramatically expand its transaction capacity. EL5800 recognizes 15 different types of activities (such as valid entry, door forced open, wrong PIN, etc). Each transaction is recorded with date, time, and card number.

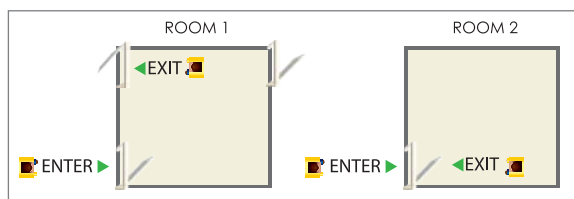
## Anti-Passback Control

The EL5800 is engineered with three advanced anti-passback options, making it the ideal solution for managing vehicle access in parking facilities. It meticulously tracks each individual's entry and exit status, effectively preventing unauthorized re-entry.

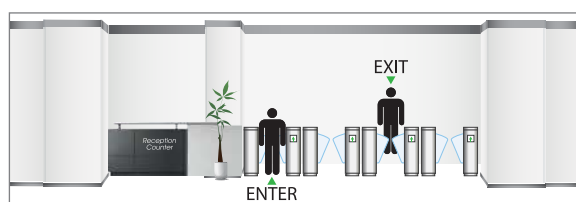
Local Anti-Passback is intended for small car parks with one entry and one exit.



Regional Anti-Passback allows doors within a single EL5800 to be grouped under different anti-passback areas. For example, 3 doors can be grouped in one anti-passback area (Room 1), while the remaining door (Room 2) can be configured as a local anti-passback.



Global Anti-Passback is intended to work across multiple access points requiring more than one unit of EL5800 to handle. This requires peer-to-peer communication between the EL5800 controllers. This feature is often required in turnstiles or flap barriers for controlling human traffic flow.



## Seamless IP Connectivity

The EL5800 is designed for modern networking environments, featuring built-in LAN support for fast, reliable communication. By leveraging LAN connectivity, users can take full advantage of the EL5800's advanced IP-based features, including real-time data transmission, centralized management, and remote access. This streamlined approach ensures optimal performance and simplifies integration into existing network infrastructure.

## Wide Choice of Readers & Formats

EL5800 is designed to work with RS485 readers such as ERM723, ERM728 and EK748 touch sense keypad with built-in reader module. In order for EL5800 to work with standard range of ELID readers with Wiegand signal, EA45 converter has to be added. EA45 is the size of a matchbox and can be easily installed behind the reader.

EL5800 allows selection of 4 different Wiegand formats:- 26-bit standard format, 20-bit free format, 32-bit free format, and ELID proprietary format.

## Friendly Programming

The EL5800 seamlessly connects with the EK13 programming keypad, simplifying essential communication setups like IP address configuration, unit identification, and baud rate adjustments. With the EK13, installers can effortlessly conduct diagnostic tests to assess the status of readers and input/output devices, making on-site installations a breeze.

Access functions, including timers, time zones, and card management, can be intuitively programmed using a PC with ELID access management software. Alternatively, you can easily configure these settings by accessing the controller's IP address through any web browser, such as Chrome or Edge.



## Inputs and Outputs

EL5800 has 8 inputs and 4 relay outputs onboard. The inputs can be used for monitoring alarm or status signals. The outputs can be activated manually or automatically by timer, or in reaction to specific status/alarm changes.

The number of I/O can be expanded by adding EA62 I/O boards. Each EA62 provides 8 inputs and 4 relay outputs, and up to 3 boards can be added.

## Compatible with Matrix V Integrated Security Management System

The Matrix V Integrated Security Management System (ISMS) is ELID's premier Software & Security Management System designed to meet advanced security needs, suited for corporate & government security market.

Matrix V System is designed for professional and serious security enforcement managers who demand high performance, accountability and consolidated situational crisis management. It uses state-of-the-art, multi-purpose, IP Controllers with intuitive user reader interface devices and Integrated Software modules to build a comprehensive Integrated Security Management System.

With its extensive capability to support 8000 access portals, with 144,000 inputs and 280,000 outputs (for I/O monitoring), Matrix V's broad system capabilities make it suitable for global deployment, across countries and regions, in the most demanding security requirements.

Matrix V is the most comprehensive Total Integrated Solution System in its class. It combines all facets of Security Management with all human interface management applications on a single platform in a single software package. A total of 8000 access portals/ 16,000 readers with 128,000 inputs and 256,000 outputs can be monitored and control on this singular platform.

## Multiple Modes of Operation

EL5800 can operate in PIN mode, CARD mode, or CARD+PIN mode. In CARD+PIN mode, the PIN can be set by the user. All modes of operation are subject to time zone constraints. 99 time zones are provided, and each time zone has an 8-day schedule (7 weekdays + 1 holiday) with 2 start/stop periods per day.

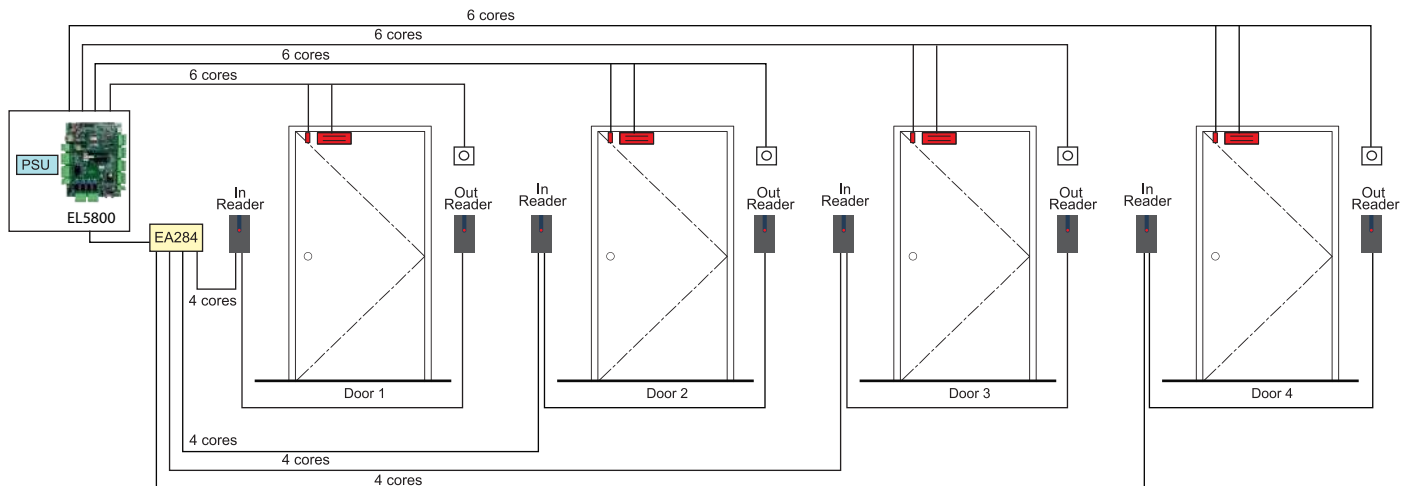
Doors can be programmed to be unlocked automatically by timers. Changing from CARD to CARD+PIN mode can also be activated automatically by timers. Up to 40 holidays can be programmed into the controller, and a separate access routine set for holidays.

## Flexible Configuration

EL5800 offers two types of configurations:-

### • Centralized Configuration

Door sensors, EM locks and exit push buttons are directly wired back to EL5800 board. Readers are connected to EL5800 via RS485 in star-topology wiring. Note that in this mode, no power supply is required at the door. All power is taken from EL5800



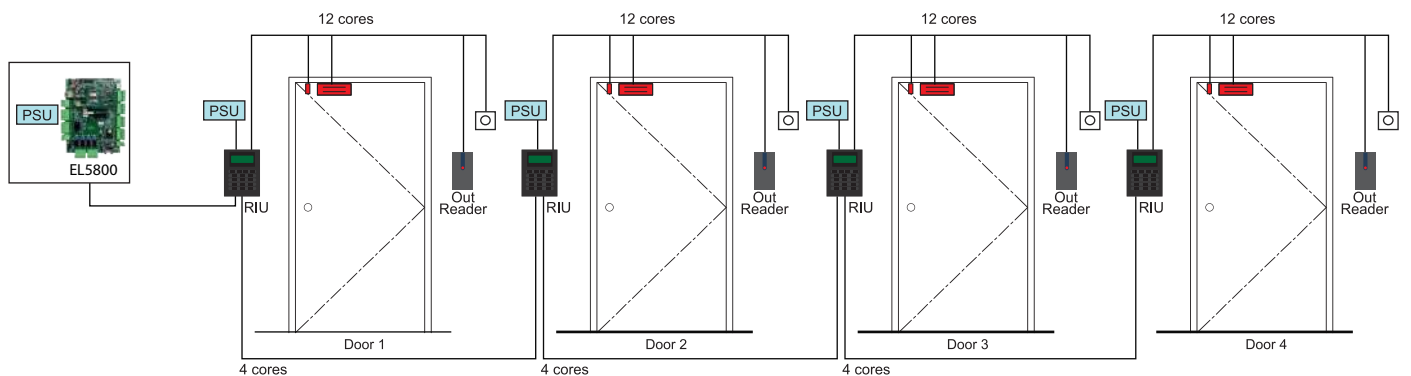
\* RS485 Reader for entry & exit access point (maximum 1km)

### • Distributed Configuration

EL5800 communicates to multiple units of ER351 Reader Interface Unit (RIU), one per door, via RS485 in daisy-chain mode.

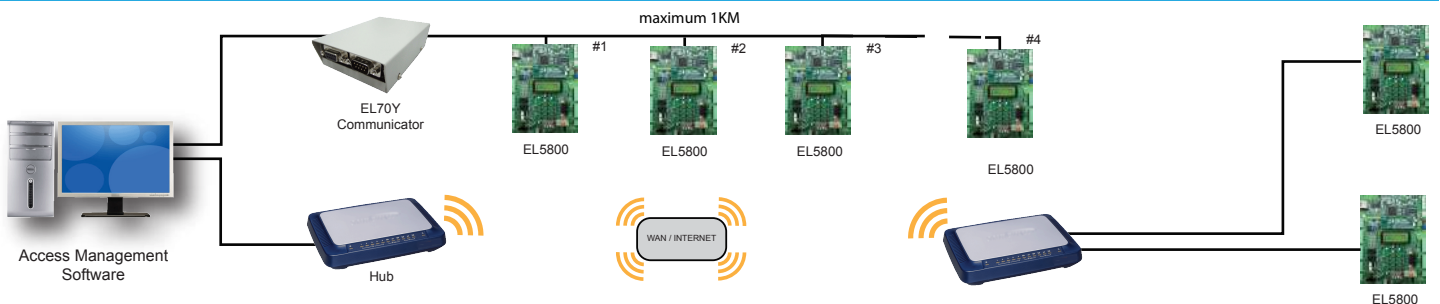
Door lock, door sensor, and exit push-button are connected to ER351 RIU, which comes with reader and PIN pad.

Note that each RIU requires its own power supply



\*ER351 RIU for entry access point (maximum 1km). Wiegand Reader for exit access point

## System Configuration :





Hardware Specification

EL5800			
Microprocessor	32-bit 120MHz ARM Cortex-M3	Holiday	40
Memory	4MB Flash, 1MB RAM, SD Card (1GB)	Standalone Operation	Yes
Communication Interface	Native TCP/IP (10/100 Base-T), RS485	Adjustable Lock Release Time	Yes
Mode of Access	Card, Card+PIN, Fingerprint, PIN	Permanent Lock Release	Yes
Type of Supporting Reader	Proximity, Smart Card, Biometric	Automatic Pin Disable Time Zone	Yes
Supporting Card Type	HID, Mifare, EM	Automatic Lock Release Time Zone	Yes
Maximum Readers	8 units (2-wire RS485 protocol)	Inhibit Access	Yes
On-board Input	8 dedicated, 8 general purpose	Continuous Swiping	Yes
On-board Output	4 dedicated, 4 general purpose	Global Anti-Passback	Yes
Maximum Number of I/O Board	3 units of EA62	Power Supply	12 VDC
Card Database	20,000	Current Consumption	200 mA (Board only)
Transaction Database	20,000	On-board Battery	2.4V lithium cell
Time Zone	99	Operating Temperature	0° C to 60° C
Timer	99	Board Dimension	210(H) x 155(W) x 25(D)mm



EK748 RS485 Touch Sense Keypad			
Microprocessor	8-bit 16MHz MCU	Display	128 x 32 GLCD (Blue)
Baud Rate	19200 bps	Keypad	12-key touch sense keypad
Communication Interface	RS485	Output format	Wiegand
Mode of Operation	Card, Card + PIN, PIN	Power Supply	12 VDC
Reading Range	Between 3cm and 8cm	Operating Temperature	0° C to 60° C
Transmission Frequency	125 kHz (EM), 13.56MHz (Mifare)	Casing Dimension	100(H) x 135(W) x 30(D)mm



RS485 Reader			
Microprocessor	8-bit 40MHz MCU	Transmission Frequency	125 kHz (EM), 13.56MHz (Mifare)
Baud Rate	19200 bps	Output format	Wiegand
Communication Interface	RS485	Power Supply	12 VDC
Mode of Operation	Card	Operating Temperature	0° C to 60° C
Reading Range	Between 3cm and 8cm	Casing Dimension	1000(H) x 45(W) x 15(D)mm



ER351 Reader Interface Unit			
Microprocessor	8-bit 20MHz MCU	Reading Range	Between 3cm to 8cm
Baud Rate	19200 bps	Transmission Frequency	125 kHz (EM), 13.56MHz (Mifare)
Communication Interface	RS485	Display	3 x LED and 1 x 7-Segment
Max. Doors Supported	1 Door	Keypad	4 x 4
Type of Reader Supported	EM, Mifare	Power Supply	12 VDC
On-board Input/Output	2 dedicated inputs, 1 dedicated output	Operating Temperature	0° C to 60° C
Mode of Operation	Card, Card+PIN, PIN	Casing Dimension	115(H) x 90(W) x 30(D)mm



EA62 I/O Expansion Module			
Communication Interface	SPI	Power Supply	12 VDC
On-board Input	8	Operating Temperature	0° C to 60° C
On-board Output	4	Board Dimension	180(H) x 70(W) x 15(D)mm



EA284 4-Port Hub			
Maximum Number of Device Usage	4	Power Supply	12 VDC
Application	Enable RS485 Star-Topology	Operating Temperature	0° C to 60° C
Communication Protocol	Half duplex RS485	Board Dimension	120(H) x 75(W) x 20(D)mm



Ordering Information

Control Panel	
EL5800001	EL5800 TCP/IP 4-Door Security Access System Module
EA0062001	EA62 Peripheral Module with 8 inputs and 4 relay outputs
ER0013004D	EK13SD Programming Keypad
CS1098X	Metal Casing - 381(H)x330(W)x91(D) mm
EP0042003	EP42S Power Supply, 12V/4.2A Switching c/w PS2D
RS485 Reader/Keypad Reader	
ER0748RE1	EK748R/EM RS485 Touch Sense Keypad (EM Reader)
ER0723R01	ER723 RS485 Short Range Proximity Reader (EM)
ER0748RM1	EK748R/MF RS485 Touch Sense Keypad (Mifare Reader)
ER0728R01	ER728 RS485 Mifare Contactless Card Reader

Wiegand Reader	
ER0728W01	ER728W Mifare Contactless Card Reader
ER09230M4	ERH923/B HID Short Range Proximity Reader
ER0723W01	ER723W Short Range Proximity Reader (EM)
ER0958B01	ER958 Secure Plus NFC Reader
Reader Interface Unit	
ER0351E01	ER351 Single-door Reader Interface Unit, built-in with EM reader
Accessories	
EA0045001	EA45 Reader Converter, Wiegand to RS485 (For standard range of ELID Wiegand readers)
EA0284001	EA284 4 Port HUB

For more information: Check out the website at: [www.elid.com](http://www.elid.com), or contact our dealers.  
ELID has a policy of continuous research and development , and reserves the right to change specifications without notice.