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xpr WS4-1D-E 1 Door Access Control Unit with Web Access User Guide

Contents

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Specifications

- 2500 Users
- 50,000 max.
- 1 (max. 40 doors in the same network)
- 2
- 1
- 1
- 250 mA each max.
- 600 mA each max.
- 15 V DC/5 A.
- 2 A/48 V AC/DC
- ARM A5 – 528 MHz
- 64 MB RAM DDR2 133 MHz
- 0% to 85% (non-condensing)
- Yes
- Yes, 2 elevators per installation, each – 24 floors
- If the configuration has been changed. A maximum of 15 backups are retained.

DESCRIPTION

WS4-4D-E is a 4-door control unit designed to operate over readers with RS-485 line. WS4 is a completely autonomous device, operating without additional software or hard-ware. Any device with web browser can be used for management of the WS4 system.

SPECIFICATIONS

- **Capacity:** 2500 Users
- **Events:** 50,000 max.
- **Doors:** 1 (max. 40 doors in the same network)
- **Readers:** 2
- **Door contact inputs:** 1
- **Push button inputs:** 1
- **Supply for the readers**: 250 mA each max.
- **Supply for the locks**: 600 mA each max.
- **Power supply:** 15 V DC/5 A.
- **Relay characteristics:** 2 A/48 V AC/DC
- **Processor:** ARM A5 – 528 MHz
- **Memory:** 64 MB RAM DDR2 133 MHz
- **TCP/IP connection:** 10/100/1000 Base-T – HTTP or HTTPS
- **Operating temperature:** 0 °C to +50 °C
- **Humidity: 0**% to 85% (non-condensing)
- **Tamper:** Yes
- **Wiegand readers connection:** Yes, via Wiegand to RS-485 converter – WS4-CNV
- **Elevator feature:** Yes, 2 elevators per installation, each – 24 floors
- Interlock, Anti pass back, people counter, presence, system logs, reports in CSV
- System limits of max 40 doors and 15 WS4 (1 master + 14 slaves).
- Activate AUX OUT Relay when the first person enters and the last person leaves (Attendance).
- Minimum password length of 8 characters.
- The WS4 automatically creates an internal backup on a USB memory stick at 23:00 only if the configuration has been changed. A maximum of 15 backups are retained.

FIRST CONNECTION AND CONFIGURATION
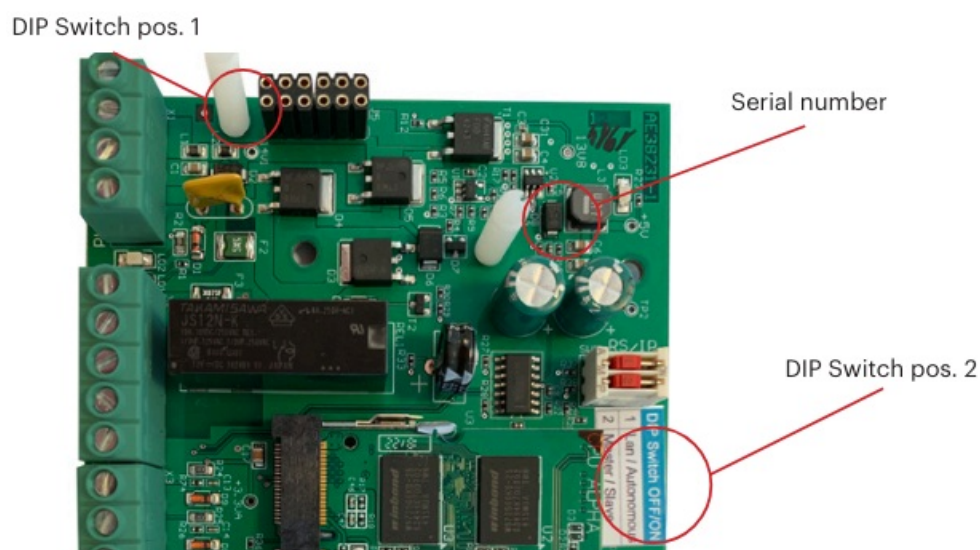
The WS4-1D does not have a default IP address. By default is set to DHCP. There are 2 methods to connect to and configure WS4-1D-E – LAN and Standalone method.

METHOD 1
(For use in a home or business LAN network)

In this configuration, the network's DHCP server will assign an IP address to your WS4-1D-E

1. Put the DIP switch 1 in position OFF.
2. Connect a cable from your network to the ethernet connector of WS4-1D-E.
3. Open a web browser and enter https://ws4 followed by a dash and the serial number of the WS4-1D-E controller
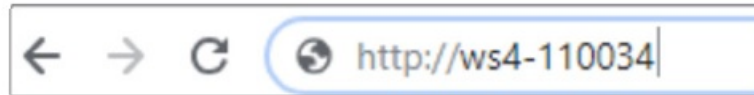

If you can not connect, it is because your network does not recognize the name of the WS4-1D-E controller. In this case, go to our website **http://www.xprgroup.com/products/ws4/** and download the tool called "Device Finder". The "Device Finder" will enable you to find out the IP address of the WS4-1D-E controller. Run the "Device Finder" and you will get a list of all the WS4 controllers connected in your network, including their IP addresses, just like the picture below.
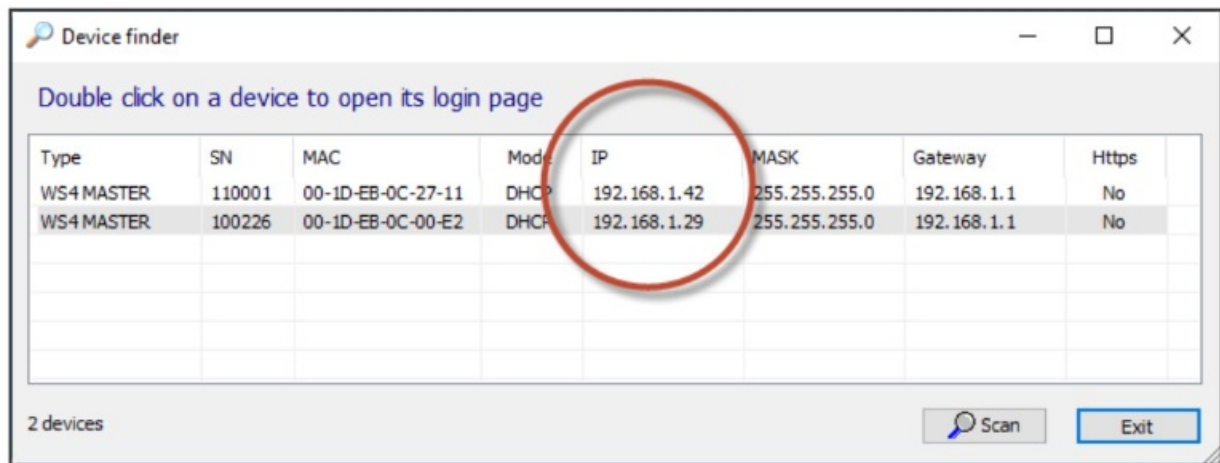
Open a browser and type the IP of the WS4-1D-E controller and you will be prompted to the login page.

- **User Name:** admin
- **Password:** WS4 followed by Dash and the Serial Number (ex. WS4-110034) just like the image below, all in capital letters without space.
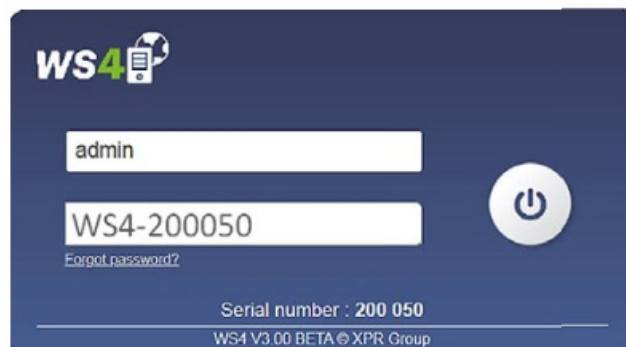

METHOD 2
(For standalone use – without LAN network)
In this configuration, the WS4-1D-E will assign an IP address to your PC. The PC must be set to obtain an IP address automatically.

1. Put the DIP switch 1 in position ON.
2. Connect a cable from your PC directly to the ethernet connector of WS4-1D-E.
3. Open a web browser and enter the following IP – 192.168.50.100, then put the login credentials explained above
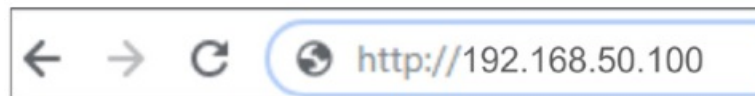
FACTORY RESET

To do this, take the following steps:

1. Put DIP Switch 4 (Factory reset) to the ON position.
2. Wait for the blinking green LED (COMM).
3. Consecutively switch the Factory reset switch (DIP 1) 3 times in the following combination OFF – ON – OFF within 10 seconds.
4. Next, the green LED starts blinking very fast, initializes it and the factory default is completed.

Factory reset

CHANGE PASSWORD

DIP Switch 1 allows you to log into the system as an administrator if your login or password is forgotten.

1. Unplug the TCP/IP network cable (RJ45).
2. Toggle this dip switch ON for about 10 seconds, then back to OFF. The system will then allow, for 5 minutes, to connect (from the local network only) with the default login and password.

Change password

SYSTEM SETUP

ADDING READERS
Go to "Doors", select the reader(fig. 2), and then select the type of the reader in the field "Card". (fig. 3). While off line, the red LED blinks fast and the buzzer beeps continuously. Once communication is established, the red LED and the buzzer stop. The green LED starts to blink continuously. If you want to stop the green LED, go to Settings/System Options and select the backlight ON or OFF (not default) (Fig. 4)
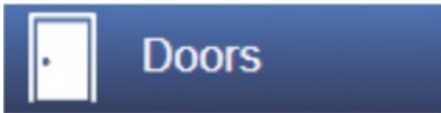
Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

To add 2 readers on 1 Door, select the reader (Fig. 2) and there, for "Type of Access" select "Access with 2 readers" (Fig. 5). Access with 2 readers is only available for doors 1.0 and 2.0, provided that a single door is not already configured in 1.1 or 2.1 respectively (Fig. 6).

ADDING USERS
Go to Users (Fig. 1), select "New" (Fig. 2), and then fill out the form (Name, Category, Card Number…) (Fig. 3).
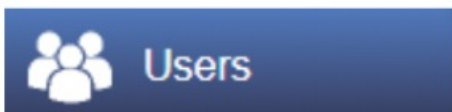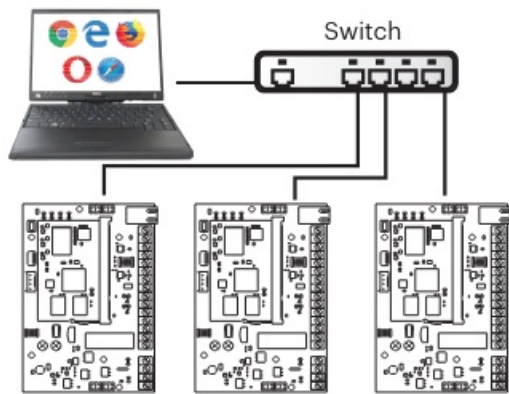

Fig. 1

Fig. 2

Fig. 3

ADDING SLAVE CONTROLLERS

- One system can have up to 15 WS4 controllers (any model) and control up to 40 doors. One WS4-1D-E must be master, the others must be slaves. The master/slave selection is made with Dip-switch 2: OFF – Master (factory setting), ON – Slave.
- Go to "Doors" and click on the link "Add slave" (Fig. 1). Enter the serial number of the WS4-1D-E to be added and click Search. If it finds it, the system directly adds this slave into the installation and you can configure its doors (Fig. 2).
- In case of an error, a message is displayed in red.
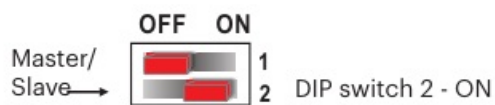
fig. 1

fig. 2

#0 - Master 110001						
ID	I/O	Name	APB	ILock	Emg.	Public
1.0		Main Entry				☐
1.1						
2.0		2.1				☐
2.1		2.2				☐

Add a slave

#0 - Master 110001						
ID	I/O	Name	APB	ILock	Emg.	Public
1.0		Main Entry				☐
1.1						
2.0		2.1				☐
2.1		2.2				☐

#1 - Slave 100226						
ID	I/O	Name	APB	ILock	Emg.	Public
1.0		Not used				
1.1		Not used				
2.0		Not used				
2.1		Not used				

Add a slave

Connection example of 1 door

Power Supply	Vin
	Gnd
Battery	Bat
	Gnd
Power for door lock	G1+
	Com
Door Relay 1	NO
	NC
Gnd for door lock	Gnd
Door Contact 1	DC
Push Button 1	Pb
Gnd for DC and PB	Gnd
12 VDC for reader	LB+
RS45 -/RS-485 B	R-
RS45 -/RS-485 A	R+
Gnd for reader	Gnd
	M -
Not used	M+
	Gnd

Dip Switch		
	OFF	**ON**
1	Lan	Autonomous
2	Master	Slave
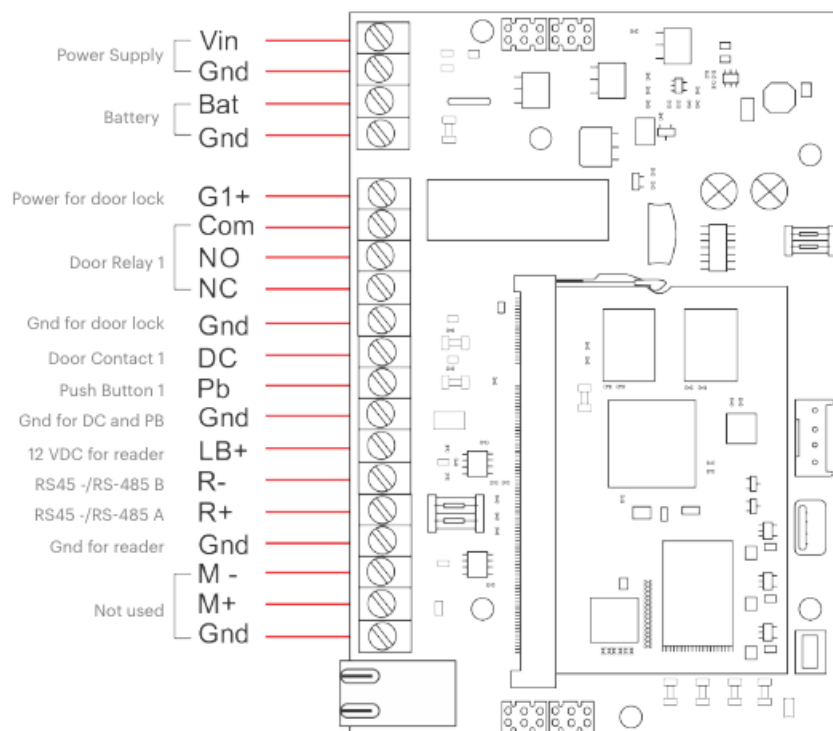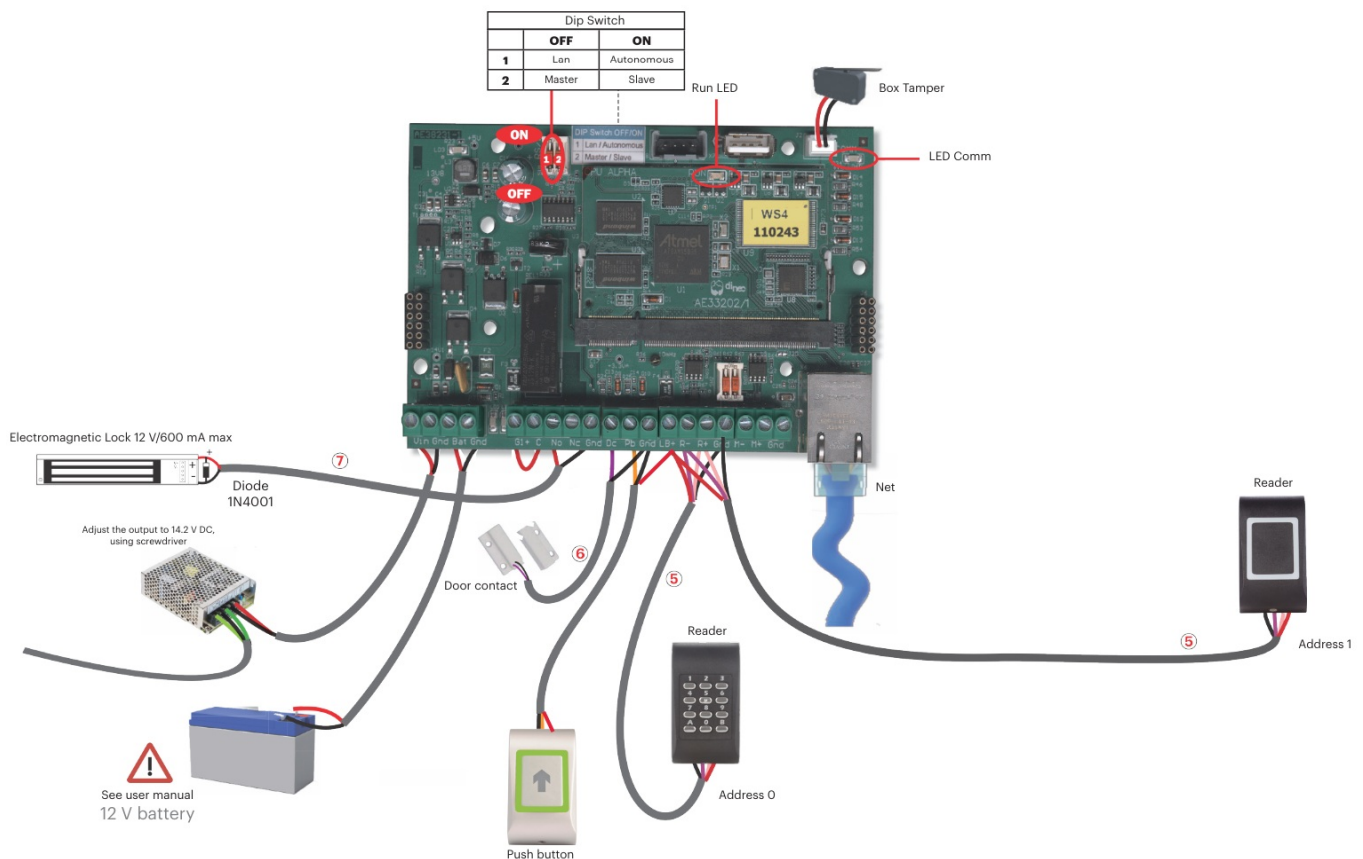
- For doors equipped with 2 readers, one must be at address 0 and the other at address 1. If there is only 1 reader, then it is recommended to be put with address 0.
- LIYCY cable, twisted pair, up to 80 m (5) If more than 80 m are needed, then termination resistors (120 ohms) may be required at both ends of the RS-485 line while taking into consideration the lengths proposed on our web site.
- Alarm cable 2×0,22. (6)
- The cross-section of the cable depends on the current needed by the lock. (7)

Note: The elevator relay boards (WS4-RB-12) are connected on the same RS-485 lines as the readers.

- This product herewith complies with the requirements of the EMC directive 2014/30/EU.
- In addition, it complies with RoHS2 Directive EN50581:2012 and RoHS3 Directive 2015/863/EU.

www.xprgroup.com

Frequently Asked Questions

- **How many users can be stored in the WS4-1D-E unit?**
    - The unit can store up to 2500 users.
- **What are the methods available for connecting and configuring the WS4-1D-E unit?**
    - The unit can be connected and configured using a LAN network or in standalone mode without a network connection.
- **How can I perform a factory reset on the WS4-1D-E unit?**
    - To perform a factory reset, follow the steps outlined in the user manual, including setting DIP switches and observing LED indicators.

Documents / Resources

 xpr WS4-1D-E 1 Door Access Control Unit with Web Access [pdf] User Guide
WS4-1D-E 1 Door Access Control Unit with Web Access, WS4-1D-E, 1 Door Access Control Unit with Web Access, Access Control Unit with Web Access, Control Unit with Web Access, Web Access

References

- ✗ **XPR Group - Safe access systems provider**
- ✗ **XPR Group - Safe access systems provider**
- ✗ **Products - XPR Group**
- **User Manual**