



EN

Installation and Configuration

AEOS Blue and vehicle identification

TRANSIT, uPASS, ANPR

Version 3

| 06-08-2019



Date	Version	Changes
06-08-2019	3	Changed instructions or the ANPR LUMO long range vehicle identification reader, via TCP/IP (chapter 5), IpBadge
26-06-2019	2	Added instructions for the ANPR LUMO long range vehicle identification reader, via TCP/IP (chapter 5) or Serial (chapter 6). Corrections in the AEmon and AEOS configuration for the TRANSIT Ultimate reader.
22-05-2019	1	New document



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1. Introduction

This manual describes how you can use AEOS Blue together with Nedap's long range vehicle identification products:

- **TRANSIT**
TRANSIT is Nedap's platform for automatic identification of vehicles and drivers. TRANSIT is specifically designed to perform in high security applications and under harsh environmental conditions, offering long-range identification of taxis, ambulances, buses and trucks.
- **uPASS**
uPASS is Nedap's vehicle and people identification platform based on UHF RFID technology. Specifically designed for convenient yet secure access control in every parking facility, gated community and campus.
- **ANPR Access / ANPR LUMO**
ANPR is Nedap's automatic number plate recognition (ANPR) platform. Designed for vehicle access applications where it is not possible or desired to issue RFID tags. ANPR is the perfect solution for situations where vehicles need to be granted access temporarily or incidentally.

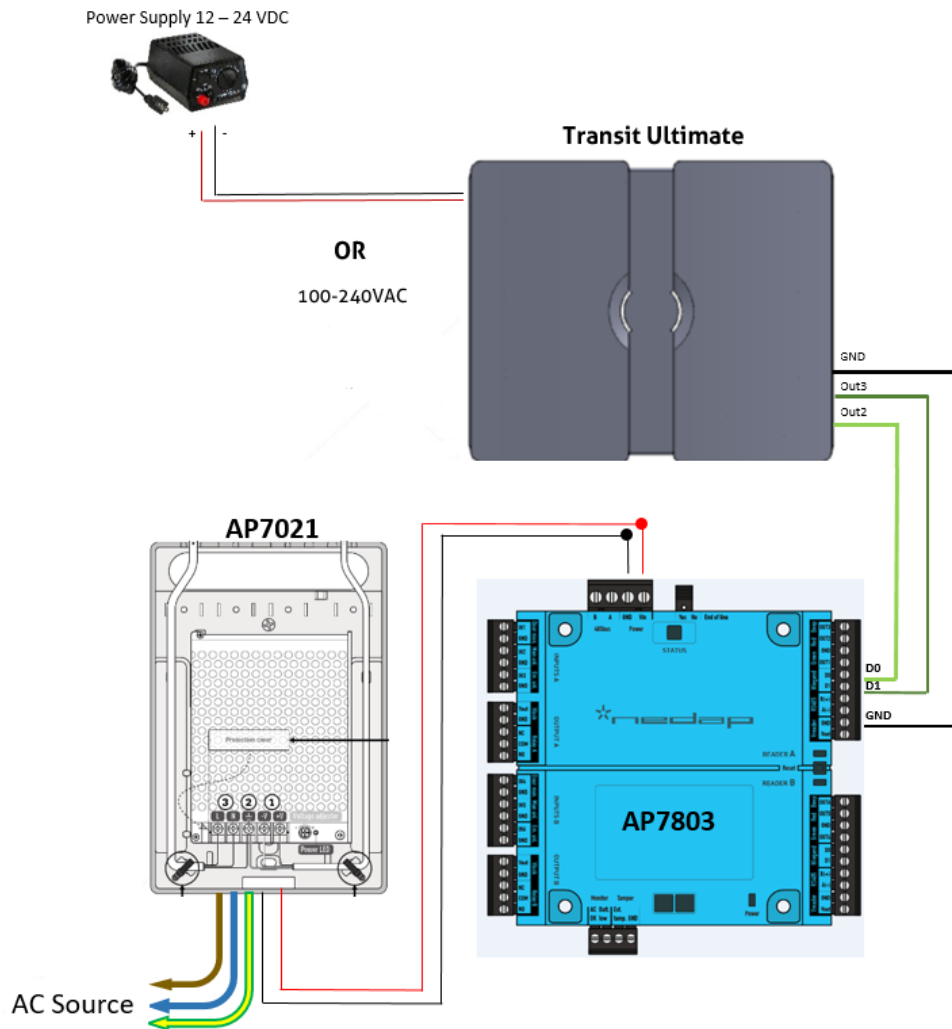
This manual shows you how Nedap vehicle identification hardware must be connected to the AEOS Blue controller. It also provides step-by-step instructions to configure the hardware, as well as AEmon and AEOS.

For more information on Nedap's long range vehicle identification products, go to <https://www.nedapidentification.com/products/>



2. TRANSIT Ultimate (for Wiegand)

2.1 Connection overview



AP7803		TRANSIT	
Wiegand	D0	O-2 (GREEN)	
	D1	O-3 (WHITE)	
Vreader	GND	GND (BLACK)	
	Vout		



2.2 Configuring the TRANSIT reader (for Wiegand)

All tags for the TRANSIT reader, both the normal and the ultimate tag, are encoded with a specific Nedap customer code. You must use the same customer code for the TRANSIT reader. Specific firmware is required, depending on the type of interface you use to connect the reader to the AEOS Blue controller. The default interface is the Wiegand interface and the firmware that should be used for this connection type is P81.

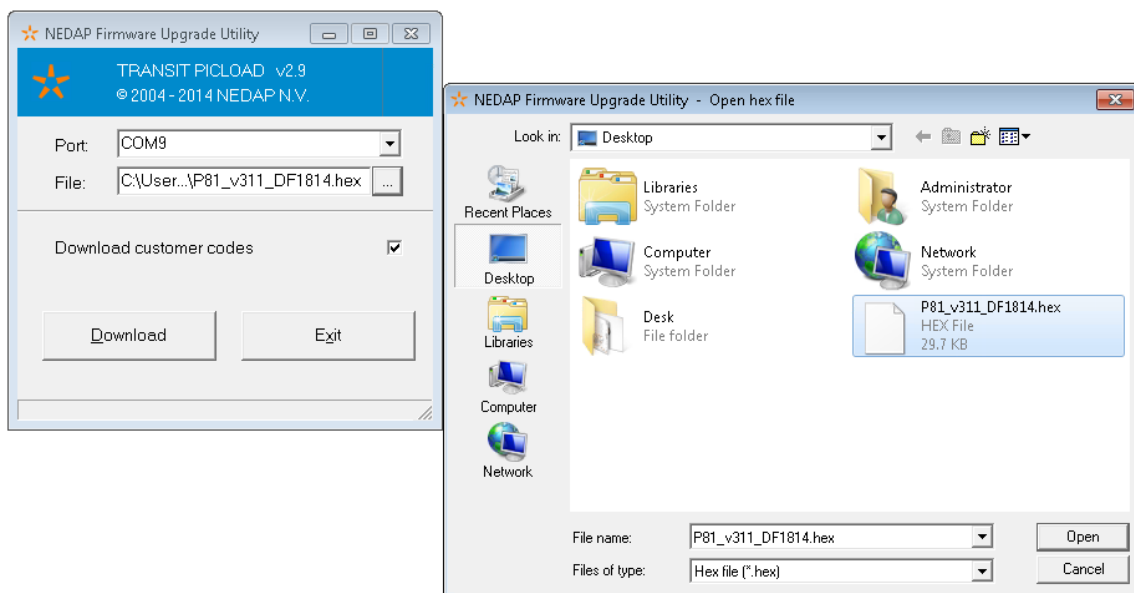
To configure the TRANSIT reader, take the following steps:

Step 01

Update the TRANSIT reader firmware (if necessary)

By default, the TRANSIT reader is configured with the correct end user customer code. If the settings need to be changed, you must upload the P81 firmware with the correct customer code to the reader. For this, you need a dedicated Nedap Firmware Upgrade software tool. Nedap Identification Systems can provide you with the correct firmware and tools.

The example below shows a firmware upload with (in this case, for example) customer code DF1814.

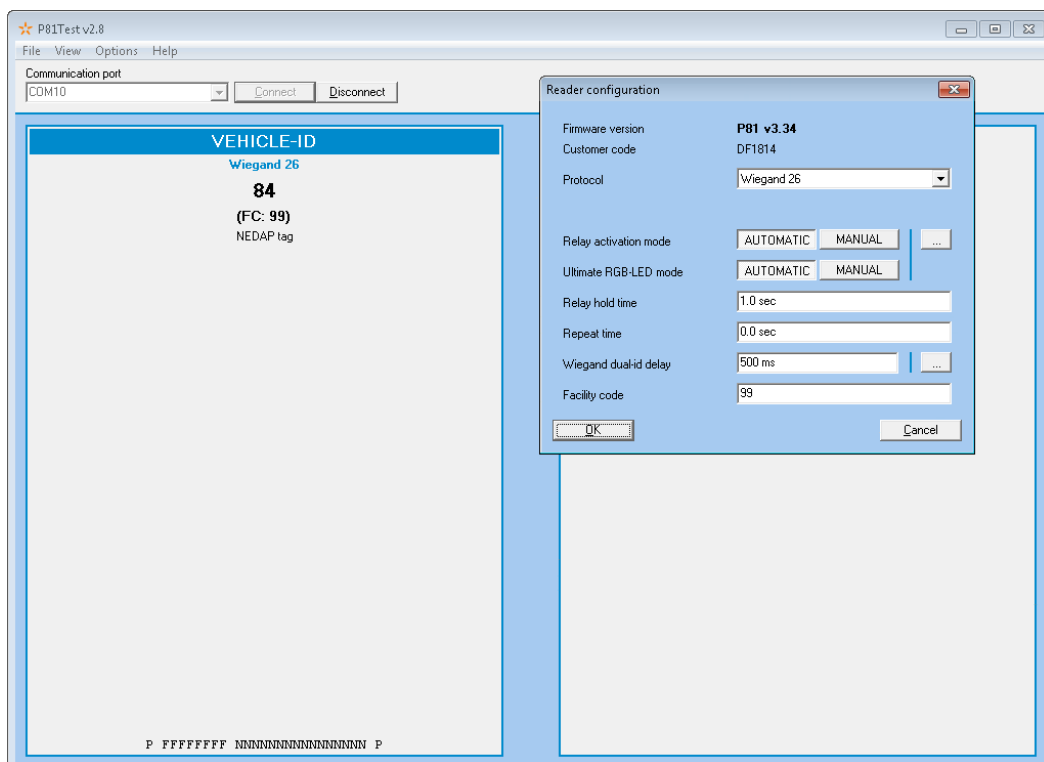


Uploading P81 firmware with the Nedap Firmware Upgrade software tool

1. Log in to the Nedap Identification Systems partner portal
2. Download and install the **PICLoader software**.
3. Connect the Transit reader to the computer.
4. Open the **PICLoader software** tool.
5. Click the 'open folder' icon and select the correct TRANSIT firmware.
6. Click **Download**.
7. Close the **PICLoader software** tool.

**Step
02****Test the communication**

1. Download and install the **P81Test software**.
2. Open the **P81Test software** tool.
3. Select the correct communication port and click **Connect**.
4. Press **F3** and configure the reader. Select the correct Wiegand protocol and configure other options such as the relay hold time, repeat time and facility code. Click **OK**.
5. Close the **P81 Test software** tool.



Configuring reader options with the P81Test software tool



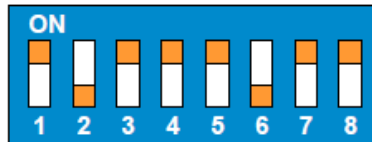
The customer code settings must match the settings in AEOS, see section 2.4.



Step 03

Adjust the dip switch

1. To send the tag number as Wiegand 26 format, set the dip switch as shown below. For other Wiegand formats, please refer to the *P81 firmware guide*.



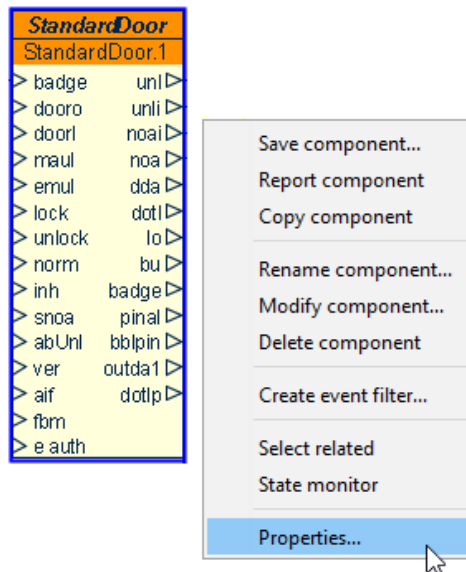
2.3 Configuring AEmon (for Wiegand)

To configure the AEOS Blue controller for the TRANSIT reader (Wiegand interface) in AEmon, take the following steps:

Step 01

Configure the identifier type in AEmon

1. Start AEmon
2. In AEmon, create/open the configuration, including the AP7803 AEOS Blue controller and the StandardDoor access point (see the *AEOS Access Points and Entrances manual*).
3. Right-click the **StandardDoor AEbc**, and click **Properties**.





4. Open the **Identifier type** editor and select **Generic**.
5. For Wiegand 26: Set the **Format** to **Binary** and select **Numeric**.
6. Check the other settings for the Wiegand 26 interface, see the example below..

Wiegand 26 identifier type settings



For other Wiegand formats, other settings may apply, like the example on the next page.

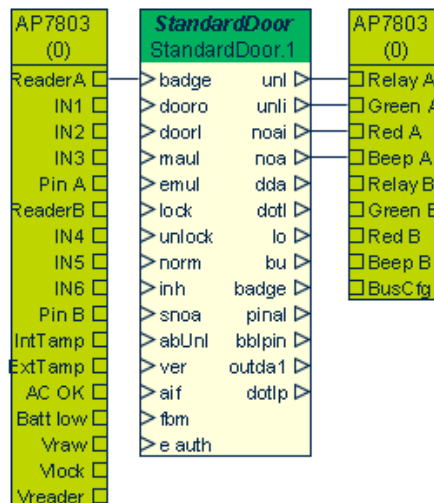


The identifier type settings must match the settings in AEOS, see section 2.4.



Other Wiegand formats – identifier type settings (example)

7. Click **OK**
8. Press **CTRL+E** and click **Yes** to deploy the configuration.
9. Close AEmon.



Configuration example



2.4 Configuring AEOS (for Wiegand)

To configure AEOS for the TRANSIT reader (Wiegand interface), take the following steps:

Step 01

Define the identifier type in AEOS

To define the identifier type, which is a 'generic' AEOS identifier type, do as follows:

1. Go to **Administration > Maintenance > Identifiers > Identifier types**.
2. Click **New**.
3. Enter a **Name** and **Sub type**, **Customer code type**, **Identifier length**, **minimum value** and **maximum value**.

Generic			
Name*	Wiegand 26	Identification Type	Numeric
Sub type*	1	Identifier length*	2
Customer code type*	Numeric	Identifier minimum value*	1
Customer code length	1	Identifier maximum value*	65535
Customer code	99	Identifier conversion	No conversion
		Token generator	No Generator
		Printable	<input type="checkbox"/>
		Encode Card	<input type="checkbox"/>
		Use external label	<input type="checkbox"/>
		Print receipt	<input type="checkbox"/>
		Add leading zeroes	<input type="checkbox"/>
		Leading character	0
		Thirdparty label	<input type="checkbox"/>

Wiegand 26 identifier type settings



For other Wiegand formats, other settings may apply. The identifier type settings must match the settings in AEmon, see section 2.3.



The customer code settings must match the settings in the P81Test software tool, see section 2.2.

4. Click **OK**.

Step 02

Check the AEOS event log

1. Go to **Monitor > Events > View log**.
2. Click **Search**.
3. Check if AEOS correctly processes the card number.

Timestamp ▼	Event type	Source	Details
18/2/2018 15:05:37	Unauthorized badge	3rd Floor Exit (Standar...	Wiegand 26 84 direction: Unknown reason: unassigned badge

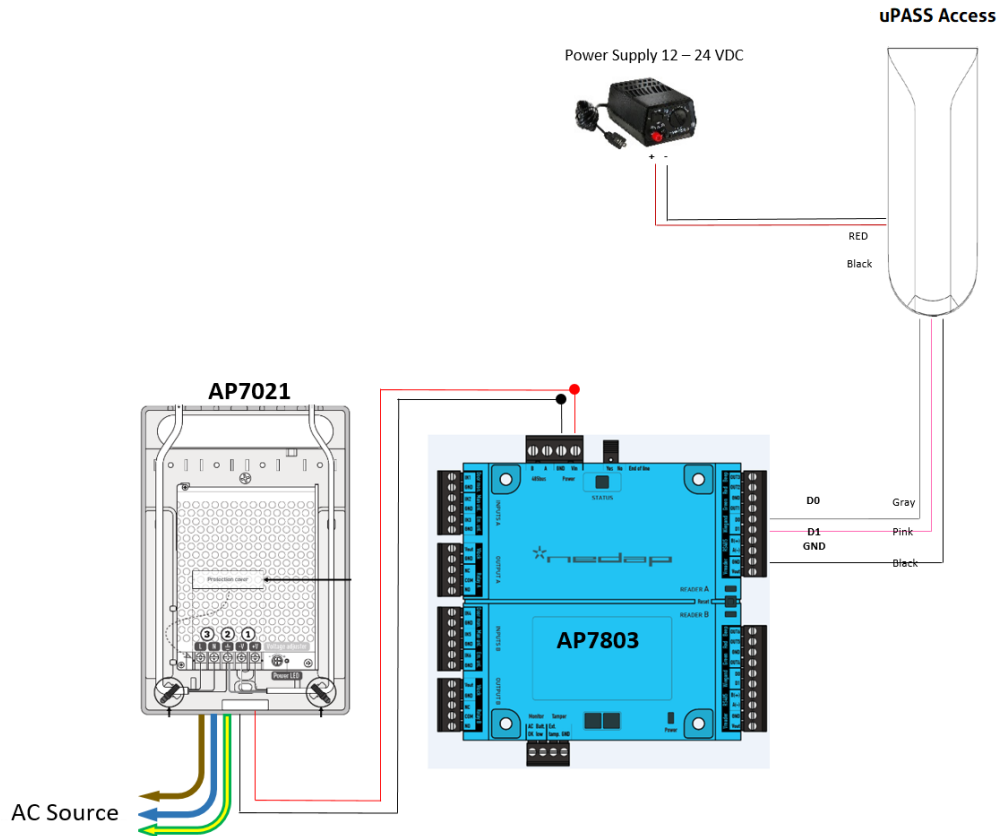
For more information on the AEOS event log, see the *AEOS user manual*.



3. uPASS

3.1 Connection overviews

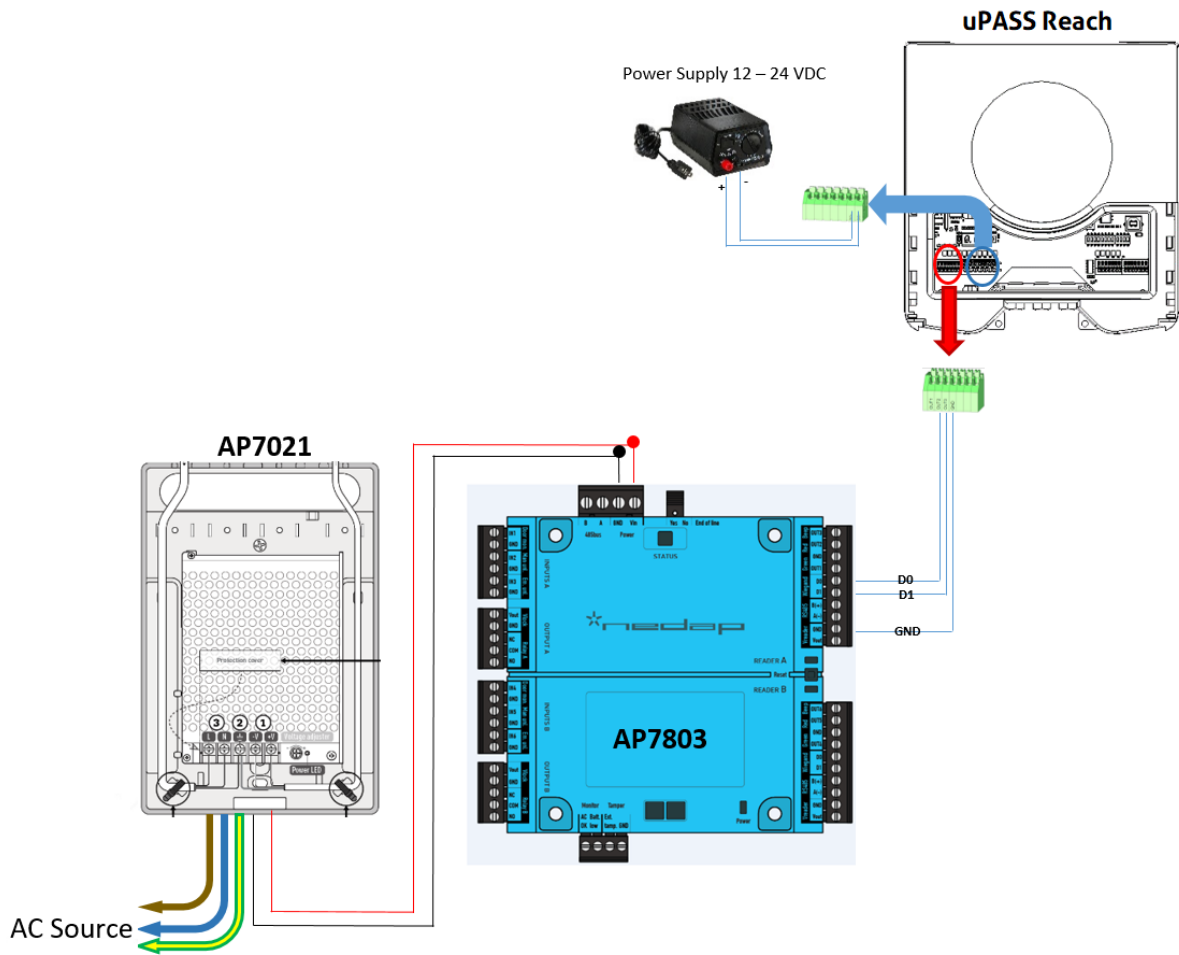
3.1.1 Connection overview uPASS Access



AP7803		uPASS
Wiegand	D0	(GRAY)
	D1	(PINK)
Vreader	GND	GND (BLACK)
	Vout	



3.1.2 Connection overview uPASS Reach

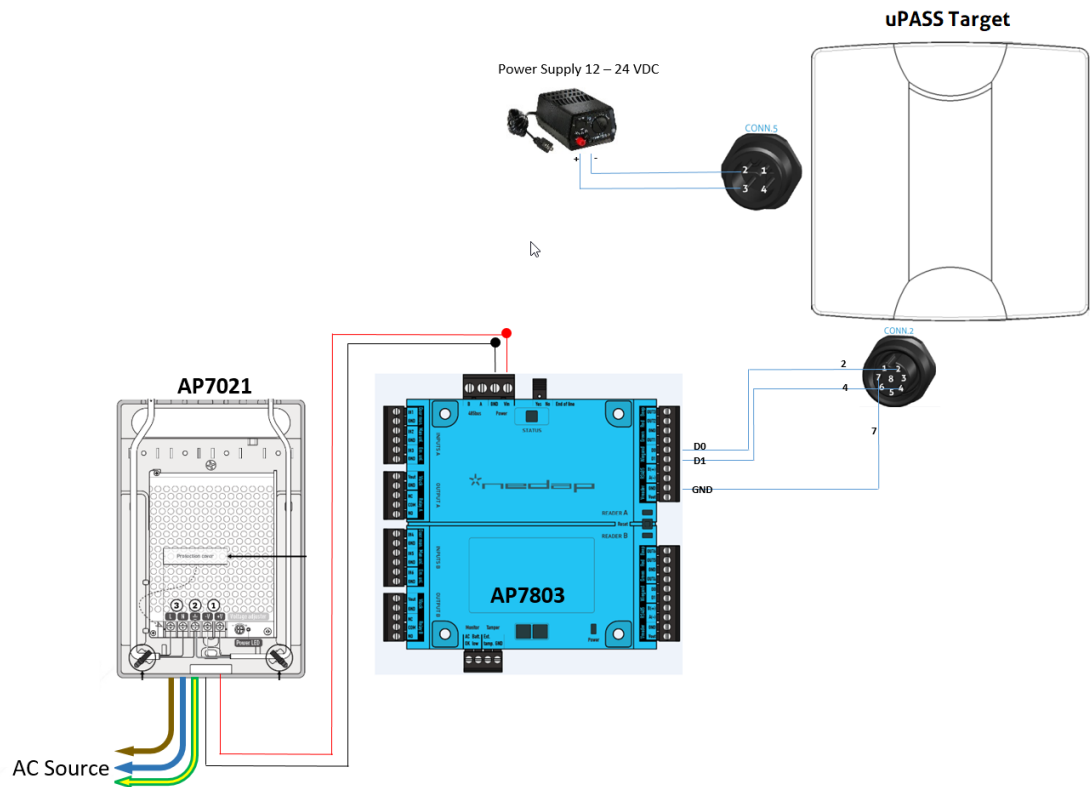


AP7803		uPASS
Wiegand	D0	Out 2
	D1	Out 3
Vreader	GND	GND
	Vout	

VDC power		uPASS
+		DC+
-		DC-



3.1.3 Connection overview uPASS Target



AP7803		uPASS
Wiegand	D0	CONN. 2, 2
	D1	CONN. 2, 4
Vreader	GND	CONN. 2, 7
	Vout	

VDC power	uPASS
+	CONN. 5, 3
-	CONN. 5, 2



3.2 Configure the uPASS reader (for Wiegand)

With the Wiegand 26 card format, you must apply specific settings on the reader to ensure that the correct card information is sent to the Wiegand interface. Note that the reader must be set to UHF mode.

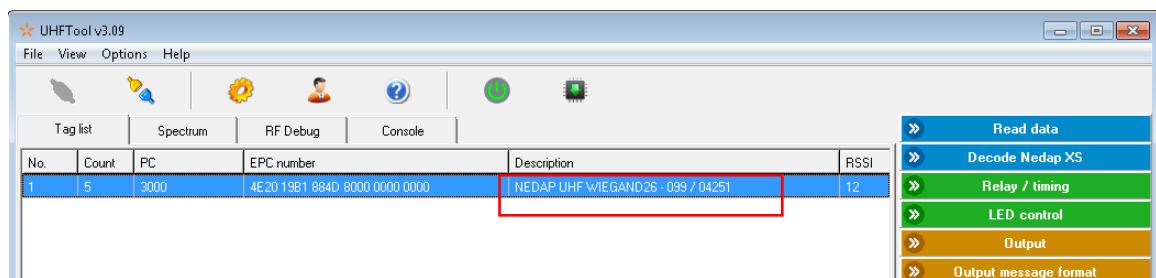
To configure the uPASS reader, take the following steps:

Step 01

Retrieve card information (if necessary)

First, you need to know your card format and facility code. If you don't know your card format and facility code, you can use the dedicated Nedap UHFtool software to retrieve them. Nedap Identification Systems can provide you with the correct tool.

The example below shows a Wiegand 26 card format, with facility code 99 and ID number 4251.

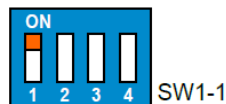


Retrieving card information with the Nedap UHFTool software

1. Log in to the Nedap Identification Systems partner portal
2. Download and install the **UHFTool software**.
3. Connect the uPASS reader via USB to the computer.
4. Open the **UHFTool software**.
5. Press **F2** to connect.
6. Check your card format and facility code
7. Close the **UHFTool software**.

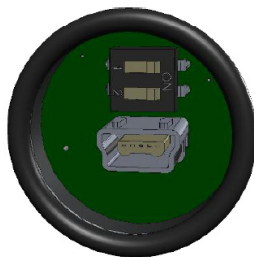
**Step
02****Set the uPASS reader to UHF mode**

For uPASS Reach, set the dip switch as shown below. SW1-1 must be switched **ON**.



UHF processor

For uPASS Target, set the dip switch as shown below. SW1-1 must be switched **OFF**:



uPASS Access does not have a dip switch.

3.3 Configure the uPASS reader (for Nedap XS)

With the Nedap XS card format, you must apply specific settings on the reader to ensure that the correct card information is sent to the Wiegand interface. Note that the reader must be set to TRANSIT mode.

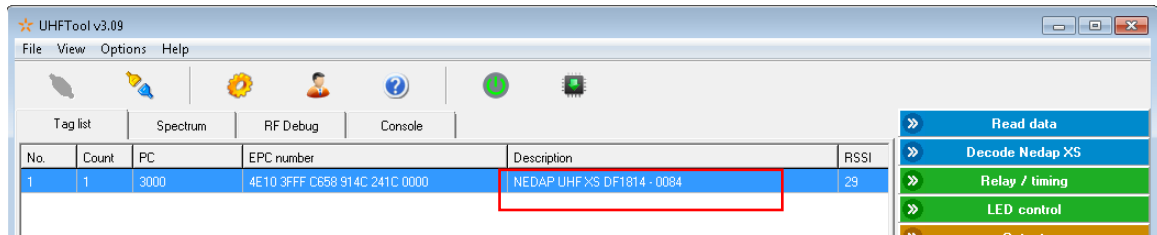
To configure the uPASS reader, take the following steps:

**Step
01****Retrieve card information (if necessary)**

First, you need to know your card customer code. If you don't know your card customer code, you can use the dedicated Nedap UHFtool software to retrieve them. Nedap Identification Systems can provide you with the correct tool.



The example below shows a Nedap XS card format, with customer code DF1814.



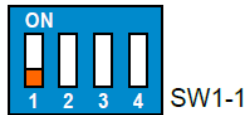
Retrieving card information with the Nedap UHFTool software

1. Log in to the Nedap Identification Systems partner portal
2. Download and install the **UHFTool software**.
3. Connect the UPass reader via USB to the computer.
4. Open the **UHFTool software**.
5. Press **F2** to connect.
6. Check your card customer code
7. Close the **UHFTool software**.

Step 02

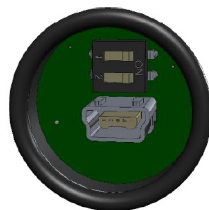
Set the uPASS reader to TRANSIT mode

For uPASS Reach, set the dip switch as shown below. SW1-1 must be switched **OFF**.



TRANSIT compatible processor

For uPASS Target, set the dip switch as shown below. SW1-1 must be switched **ON**:



uPASS Access does not have a dip switch.



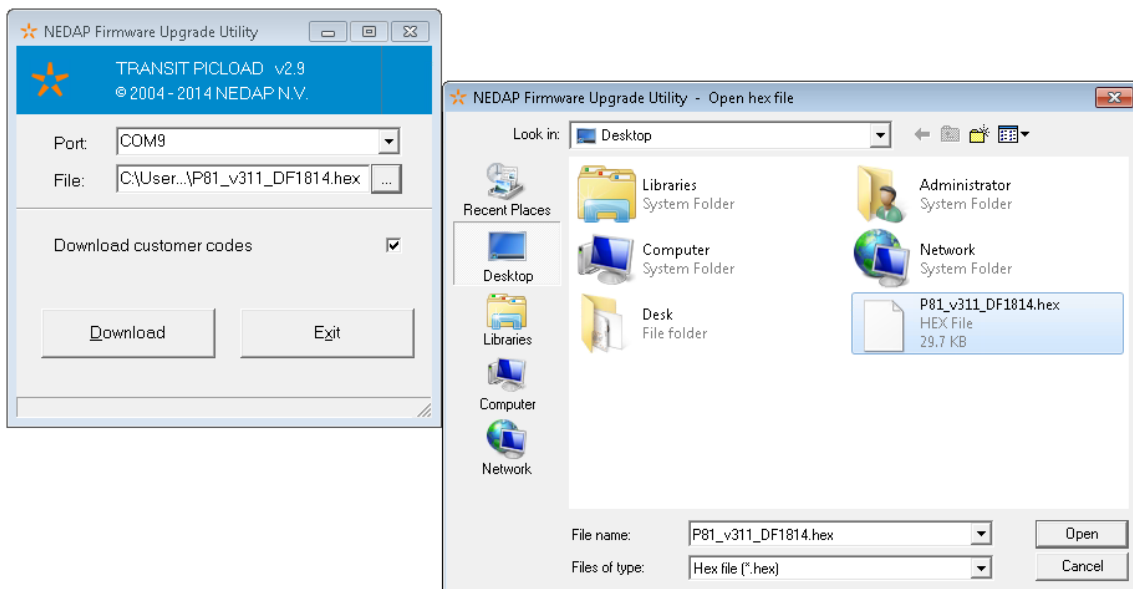
Step 03

Update the uPASS reader firmware (if necessary)

The cards are encoded with a specific Nedap customer code. You must use the same customer code for the uPASS reader. Specific firmware is required, depending on the type of interface you use to connect the reader to the AEOS Blue controller.

By default, the TRANSIT reader is configured with the correct end user customer code. If the settings need to be changed, you must upload the P81 firmware with the correct customer code to the reader. For this, you need a dedicated Nedap Firmware Upgrade software tool. Nedap Identification Systems can provide you with the correct firmware and tools.

The example below shows a firmware upload with (in this case, for example) customer code DF1814.

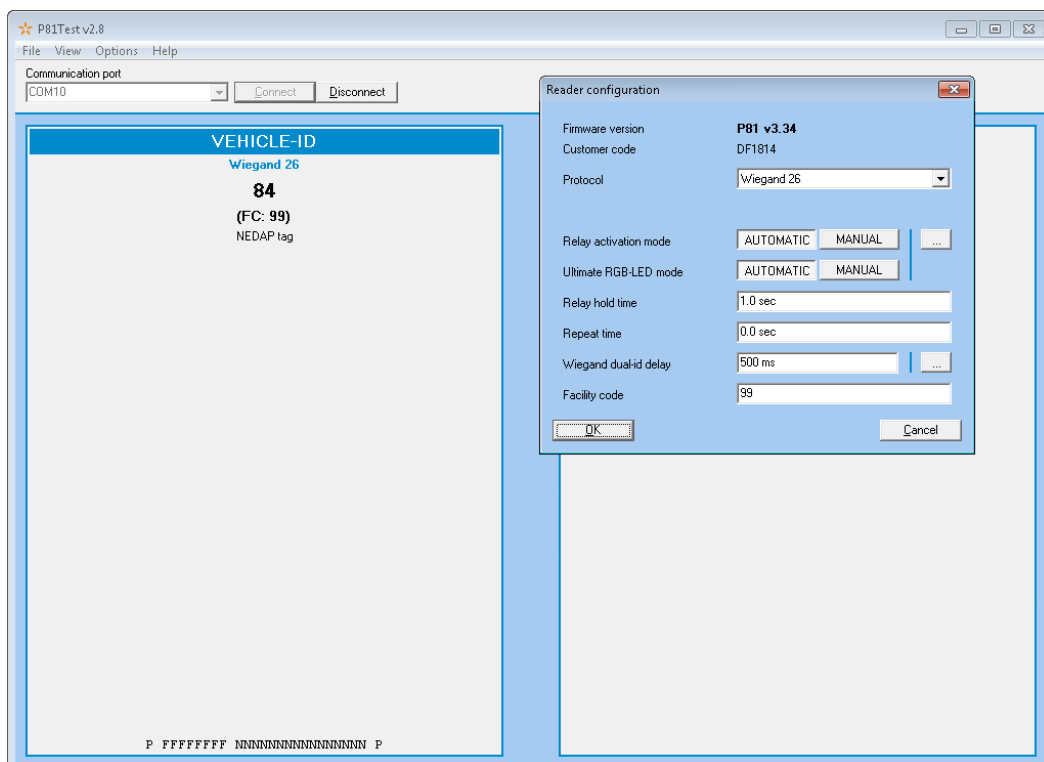


Uploading P81 firmware with the Nedap Firmware Upgrade software tool

1. Log in to the Nedap Identification Systems partner portal
2. Download and install the **PICLoader software**.
3. Connect the Transit reader to the computer.
4. Open the **PICLoader software** tool.
5. Click the 'open folder' icon and select the correct uPASS firmware.
6. Click **Download**.
7. Close the **PICLoader software** tool.

**Step
04****Test the communication**

1. Download and install the **P81Test software**.
2. Open the **P81Test software** tool.
3. Select the correct communication port and click **Connect**.
4. Press **F3** and configure the reader. Select the correct Wiegand protocol and configure other options such as the relay hold time, repeat time and facility code. Click **OK**.
5. Close the **P81 Test software** tool.



Configuring reader options with the P81Test software tool



The customer code settings must match the settings in AEOS, see section 3.5.



Step 05

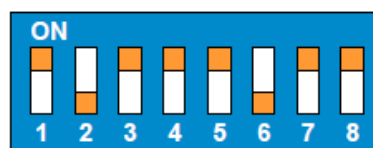
Adjust the dip switch



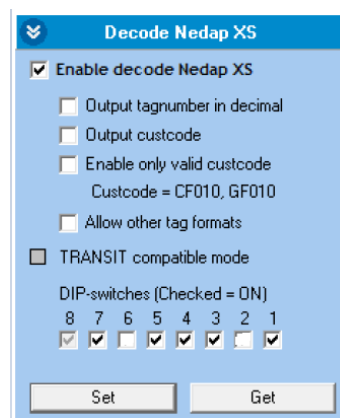
For Nedap XS, make sure the uPASS reader is set to TRANSIT mode, see step 2.

- To send the tag number as Wiegand 26 format, set the dip switch as shown below. For other Wiegand formats, please refer to the *P81 firmware guide*.

For uPASS reach:



For uPASS Target:



uPASS Access does not have a dip switch.

3.4 Configuring AEmon

To configure the AEOS Blue controller for the uPASS reader in AEmon, take the following steps:

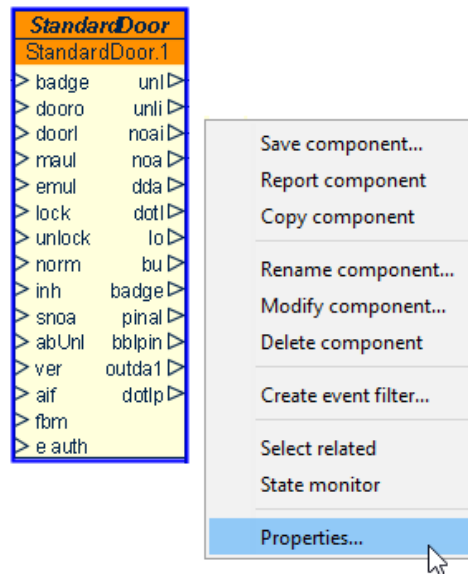
Step 01

Configure the identifier type in AEmon

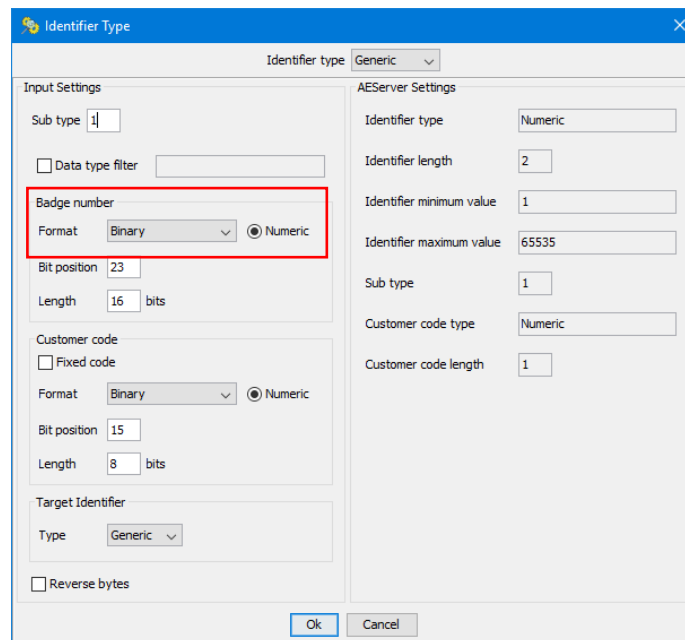
- Start AEmon
- In AEmon, create/open the configuration, including the AP7803 AEOS Blue controller, the IPBadge AEbc and the StandardDoor access point (see the *AEOS Access Points and Entrances* manual).



3. Right-click the **StandardDoor AEbc**, and click **Properties**.



4. Open the **Identifier type** editor and select **Generic**.
5. Set the Format to **Binary**.
6. Check the other settings, see the example below. Click **OK**.

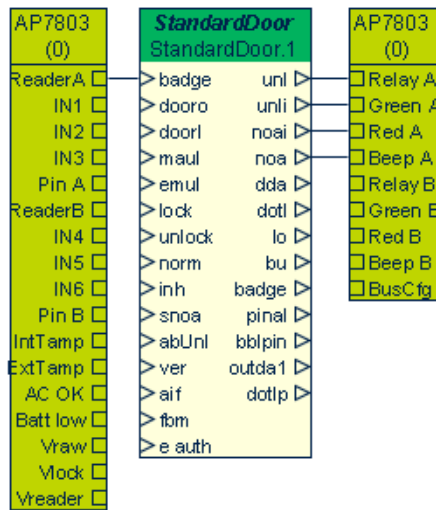


The identifier type settings must match the settings in AEOS, see section 3.5.

7. Press **CTRL+E** and click **Yes** to deploy the configuration.



8. Close AEmon.



Configuration example

3.5 Configuring AEOS

To configure AEOS for the ANPR Access reader, take the following steps:

Step 01

Define the identifier type in AEOS

To define the identifier type, which is a 'generic' AEOS identifier type, do as follows:

1. Go to **Administration > Maintenance > Identifiers > Identifier types**.
2. Click **New**.
3. Enter a **Name** (in this example: Wiegand 26) and **Sub type**, **Customer code type**, **Identifier length**, **minimum value** and **maximum value**.

Generic			
Name*	Wiegand 26	Identification Type	Numeric
Sub type*	1	Identifier length*	2
Customer code type*	Numeric	Identifier minimum value*	1
Customer code length	1	Identifier maximum value*	65535
Customer code	99	Identifier conversion	No conversion
		Tokengenerator	No Generator
		Printable	<input type="checkbox"/>
		Encode Card	<input type="checkbox"/>
		Use external label	<input type="checkbox"/>
		Print receipt	<input type="checkbox"/>
		Add leading zeroes	<input type="checkbox"/>
		Leading character	0
		Thirdparty label	<input type="checkbox"/>



The identifier type settings must match the settings in AEmon, see section 3.4.

4. Click **OK**.



Step 02

Issue an identifier

To issue the Identifier, do as follows:

1. Go to the **Visitor/Employee/Contractor > Announce** screens.
2. In the **Identifier Type** field, select the correct identifier type (in this example: Wiegand 26) and enter the identifier number.
3. Click **OK** to save the carrier data.

Identification	
Identifier type	<input type="text" value="Wiegand 26"/> <input type="button" value="Identifier"/> <input type="text" value="4251"/> <input type="button" value=" >> "/>

Issue an identifier in AEOS

Step 03

Check the AEOS event log

1. Go to **Monitor > Events > View log**.
2. Click **Search**.
3. Check if AEOS correctly processes the card.

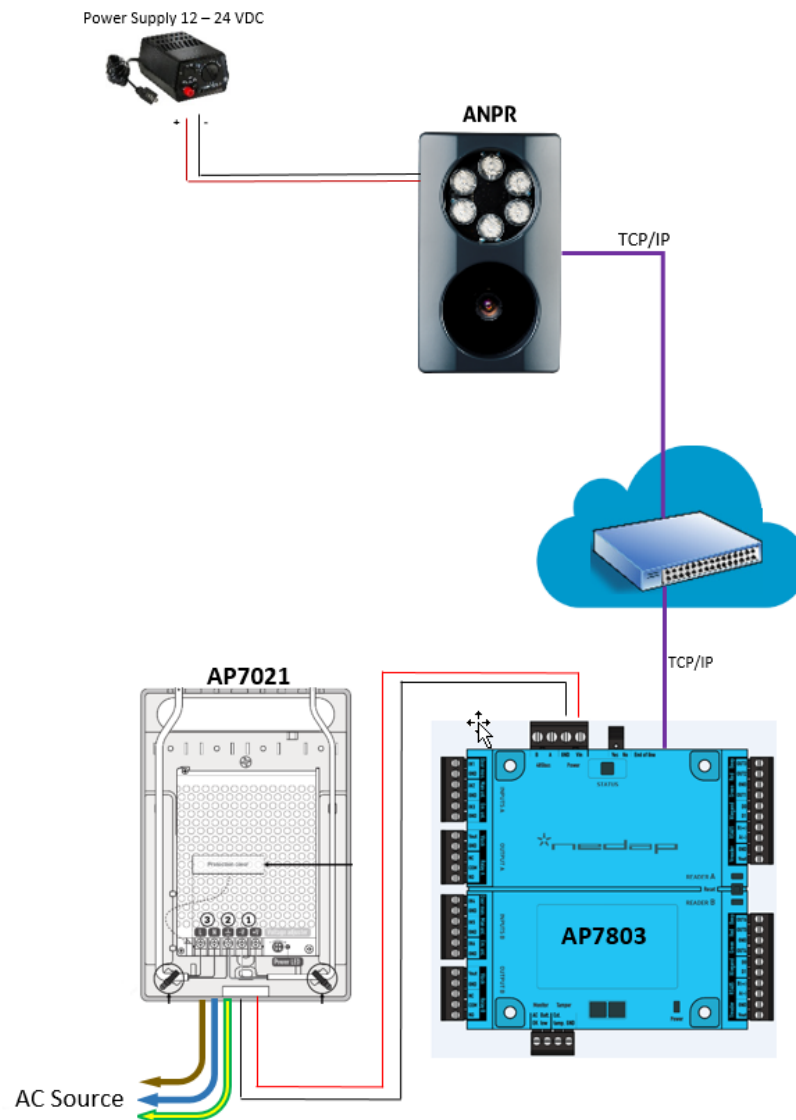
Timestamp ▼	Event type	Source	Details
11/3/2018 15:34:16	Authorized badge	Door1 (StandardDoor.1)	Wiegand 26 4251 direction: Unknown

For more information on the AEOS event log, see the *AEOS user manual*.



4. ANPR Access for TCP/IP

4.1 Connection overview



4.2 Configuring the ANPR Access reader for TCP/IP

When the ANPR Access reader is correctly mounted and connected (see the *ANPR Install Guide*), the next step is to configure it to send the license plate number string to the AEOS blue controller, via TCP messages.

To configure the ANPR Access reader, take the following steps:



Step 01

Configure the ANPR Access reader

1. Enter the reader's IPAddress (or NetBiosName) in the address bar of your web browser and log in.
2. Go to **Plate reader >Event actions**.
3. Enable the **TCP Message on OCR read** option.

Events/Actions Settings												
Plate Reader	Actions / Events	Send Image FTP	Save DB FTP	GM Alarm	Pulse Out	Com485 Message	TCP Message	Send Image FTP 2	Save DB FTP 2	TCP Message 2	SD Saving	Save DB SD
System	Ocr Read											
	Ocr Not Read											
	Ocr No Plate											

4. Check the settings. See the example below. The **Server IP** address that you must enter here is the IP address of the AEOS Blue controller (see the *AEOS hardware configuration* manual). The **Server port** number must match the server port number set in AEmon (see section 4.3).

TCP Message on Ocr Read

Enable:

Message format:

Message:

Image Encryption:

Jpeg Quality:

Crop Image(*):

Plot Box:

Context Jpeg Quality:

Resize Ctx Image:

Ctx Plot Box:

Text Position:

Text Dimension:

Text Options:

Text Value:

Server IP:

Server Port:

Reuse Connection:

Conditional execution:

Buffering on SD:

5. Click **Apply**.



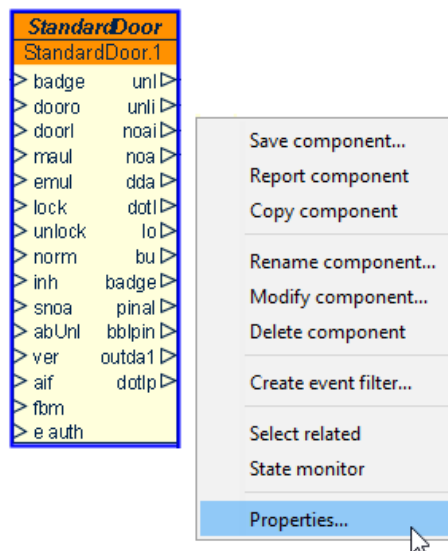
4.3 Configuring AEMON

To configure the AEOS Blue controller for the ANPR Access reader in AEMON, take the following steps:

Step 01

Configure the identifier type in AEMON

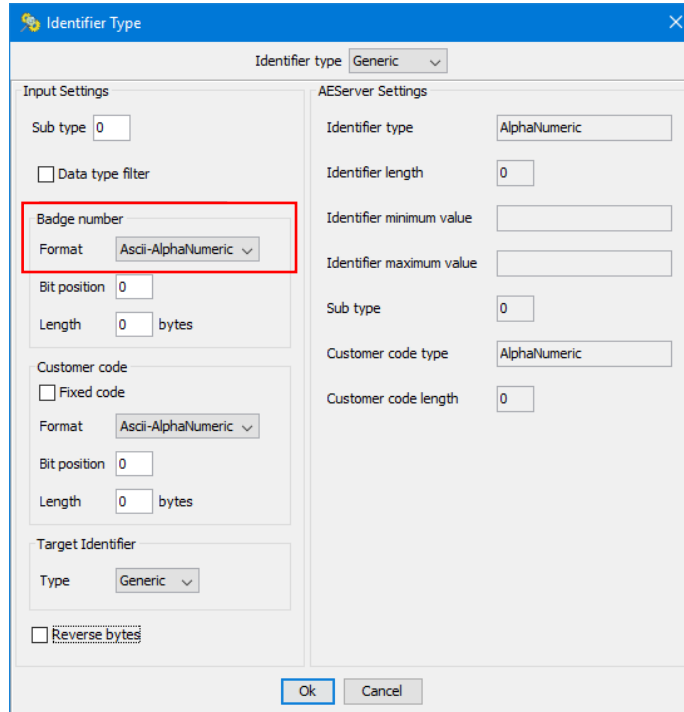
1. Start AEMON
2. In AEMON, create/open the configuration, including the AP7803 AEOS Blue controller, the IPBadge AEbc and the StandardDoor access point (see the *AEOS Access Points and Entrances* manual).
3. Right-click the **StandardDoor AEbc**, and click **Properties**.



4. Open the **Identifier type** editor and select **Generic**.

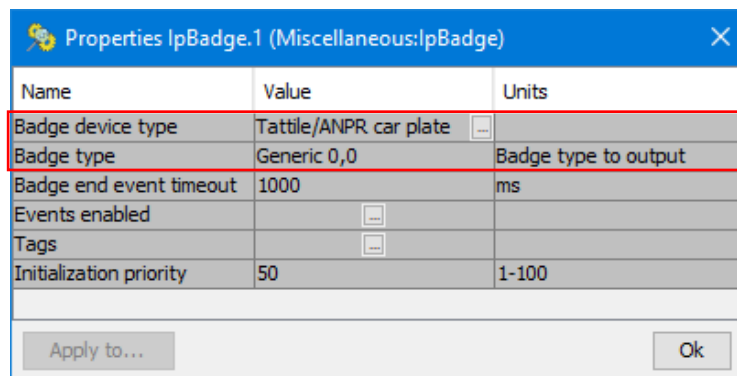


5. Set the Format to **ASCII-AlphaNumeric**.
6. Check the other settings, see the example below. Click **OK**.



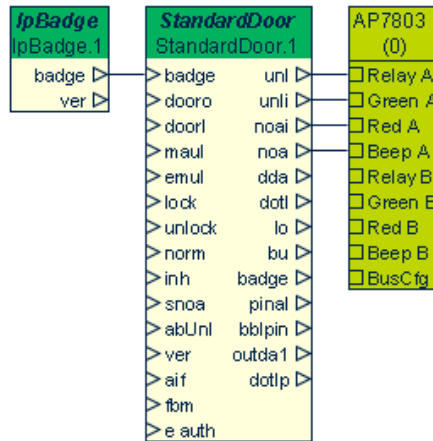
The identifier type settings must match the settings in AEOS, see section 4.4.

7. Right-click the **IPBadge AEbc**, and click **Properties**.
8. Select **Badge type Generic 0.0**.
9. Open the Badge device type editor, select **Tattile/ANPR car plate** and **Listening TCP port 32000**. The Listening TCP port number must match the server port number set in the ANPR Access reader (see section 4.2)





10. Press **CTRL+E** and click **Yes** to deploy the configuration.
11. Close AEmon.



Configuration example

4.4 Configuring AEOS

To configure AEOS for the ANPR Access reader, take the following steps:

Step 01

Define the identifier type in AEOS

To define the identifier type, which is a 'generic' AEOS identifier type, do as follows:

1. Go to **Administration > Maintenance > Identifiers > Identifier types**.
2. Click **New**.
3. Enter a **Name** (in this example: ANPR) and **Sub type**, **Customer code type**, **Identifier length**, **minimum value** and **maximum value**.



The identifier type settings must match the settings in AEmon, see section 4.3.

4. Click **OK**.

Step 02

Issue the licence plate number as identifier

To issue the licence plate as an identifier, do as follows:

1. Go to the **Visitor/Employee/Contractor > Announce** screens.
2. In the **Identifier Type** field, select the correct identifier type (in this example: ANPR) and enter the licence plate number.
3. Click **OK** to save the carrier data.

Identification	
Identifier type	ANPR
Identifier	L87012

Issue a license plate number as an identifier in AEOS

Step 03

Check the AEOS event log

1. Go to **Monitor > Events > View log**.
2. Click **Search**.
3. Check if AEOS correctly processes the licence plate number.

Timestamp ▼	Event type	Source	Details
11/3/2018 15:34:16	Authorized badge	Door1 (StandardDoor.1)	ANPR L87012 (Nedap) direction: Unknown

For more information on the AEOS event log, see the *AEOS user manual*.



5. ANPR LUMO for TCP/IP

5.1 Configuring the ANPR LUMO reader for TCP/IP

When the ANPR LUMO reader is correctly mounted and connected (see the *ANPR LUMO Install Guide*), the next step is to configure it to send the license plate number string to the AEOS blue controller, via TCP messages.

To configure the ANPR LUMO reader, take the following steps:

Step 01

Configure the ANPR LUMO reader

1. Log in to the NEDAP ANPR LUMO software.
2. Go to **CONFIGURATION > ACTIONS > READ**.
3. Click **ADD** and select **TCP**.

The screenshot shows the NEDAP ANPR LUMO software interface. The top navigation bar includes 'HOME', 'TEXT RESULT', 'ACCESS LISTS', 'CONFIGURATION' (highlighted), 'SYSTEM SETTINGS', and 'LOG OUT'. Below the navigation bar, there are tabs for 'CAMERA', 'ANPR', 'ACTIONS', and 'INSTALLATION PARAMETERS'. The 'ACTIONS' tab is selected, and the 'READ' sub-tab is active. An 'ADD' button is visible. A modal window titled 'ADD/EDIT ACTION' is open, showing a dropdown menu with 'TCP' selected. The modal contains the following fields:

- TCP ACTION** (with 'ON' and 'ENABLE' buttons)
- IP**: 10.101.1.12
- PORT**: 10000
- SEND ASYNC**:
- MESSAGE**: %LP%CR%

At the bottom of the modal, there are 'CANCEL' and 'SAVE' buttons. The background shows a list of action types under the 'ACTIONS' section, including 'NOREAD', 'LOW CONFIDENCE READ', 'WHITELIST MATCH', 'WHITELIST MISMATCH', 'BLACKLIST MATCH', 'BLACKLIST MISMATCH', 'IGNORELIST MATCH', 'IGNORELIST MISMATCH', 'WIEGAND MATCHLIST', and 'SYSTEM MESSAGES'.



- Enter the correct settings, as shown in the tables below. The **Server IP** address that you must enter here is the IP address of the AEOS Blue controller (see the *AEOS hardware configuration* manual). The **Server port** number must match the server port number set in AEmon (see sections 5.2 and 5.3).

With the IpBadge AEbc:¹

Property	Value
IP	IP address of the AEOS Blue controller
PORT	12500
SEND ASYNCH	✓
MESSAGE	<%LP%>

With the Generic Message mapper AEbc:¹

Property	Value
IP	IP address of the AEOS Blue controller
PORT	10000
SEND ASYNCH	✓
MESSAGE	%LP%%CR%

- Click **SAVE**.

¹ The IpBadge AEbc supports the ANPR LUMO from AEOS version AEOS version 2019.1.3 onwards. When the IpBadge AEbc does not support the ANPR LUMO, use the Generic Message Mapper AEbc instead.



5.2 Configuring AEmon for TCP/IP – with IpBadge

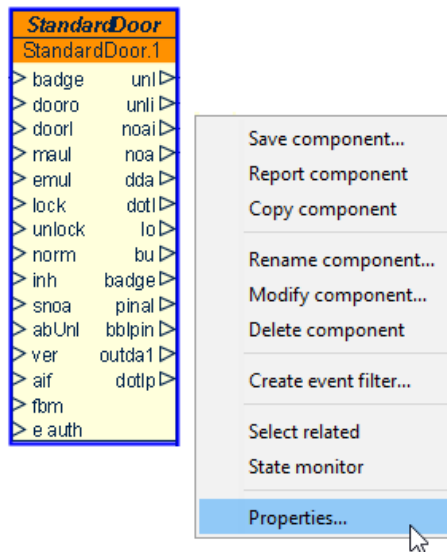
The IpBadge AEbc supports the ANPR LUMO from AEOS version 3.4.0.14 and AEOS version 2019.1.2 onwards. With older AEOS versions, use the Generic Message Mapper AEbc instead. For instructions, see section 5.3.

To configure the AEOS Blue controller for the ANPR LUMO reader in Aemon with the IpBadge AEbc, take the following steps:

Step 01

Configure the identifier type in AEmon

6. Start AEmon
7. In AEmon, create/open the configuration, including the AP7803 AEOS Blue controller, the IPBadge AEbc and the StandardDoor access point (see the *AEOS Access Points and Entrances* manual).
8. Right-click the **StandardDoor AEbc**, and click **Properties**.



9. Open the **Identifier type** editor and select **Generic**.



10. Set the Format to **ASCII-AlphaNumeric**.
11. Check the other settings, see the example below. Click **OK**.



The identifier type settings must match the settings in AEOS, see section 5.4.

12. Right-click the **IPBadge AEbc**, and click **Properties**.
13. Select **Badge type Generic 0.0**.

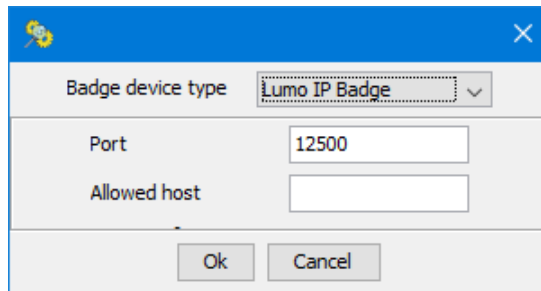
Name	Value	Units
Badge device type	Lumo IP Badge	
Badge type	Generic 0,0	Badge type to output
Badge end event timeout	1000	ms
Events enabled	<input type="checkbox"/>	
Tags	<input type="checkbox"/>	
Initialization priority	50	1-100

Buttons: Apply to... Ok



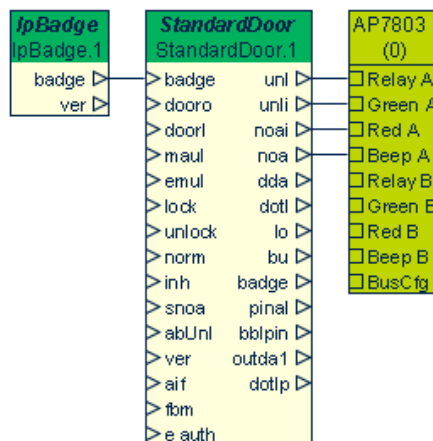
14. Open the **Badge device type** editor, select **LUMO IP Badge**

- The **Port number** must match the server port number set in the ANPR LUMO reader, this example uses port number 12500 (see section 5.1).
- Optionally, you can enter an **allowed host**. Typically, this the IP address of the ANPR LUMO reader.



15. Press **CTRL+E** and click **Yes** to deploy the configuration.

16. Close AEmon.



Configuration example



5.3 Configuring AEmon for TCP/IP – with Generic Message Mapper



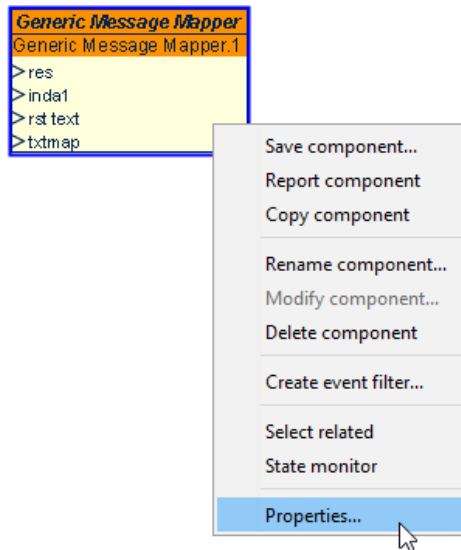
From AEOS version 2019.1.3 onwards, the IpBadge AEbc supports the ANPR LUMO and configuring AEmon has become easier. For instructions, see section 5.2.

To configure the AEOS Blue controller for the ANPR LUMO reader in AEmon with the Generic Message mapper AEbc, take the following steps:

Step 01

Configure the identifier type in AEmon

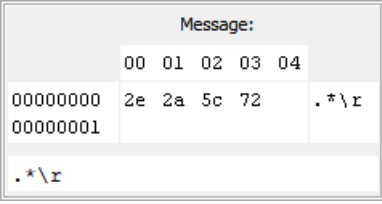
1. Start AEmon
2. In AEmon, create/open the configuration, including the AP7803 AEOS Blue controller, the Generic Message Mapper AEbc, the LabelValueToString AEbc, the StringFormatter AEbc, the InputToBadge AEbc and the StandardDoor access point (see the *AEOS Access Points and Entrances* manual).
3. Right-click the **Generic Message Mapper** AEbc and click **Properties**.



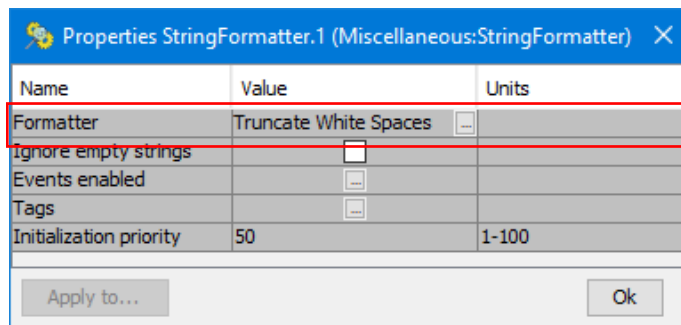
4. Adjust the settings as shown below.
(See the *AEbc Message Mapper descriptions* manual for more information.)

Property	Value
IO server type > IO Provider Type	Generic IP Protocol ▼
IP settings > Server event port	10000
IP settings > Incoming Protocol	Full TCP ▼
IP settings > Outgoing Protocol	Disabled ▼

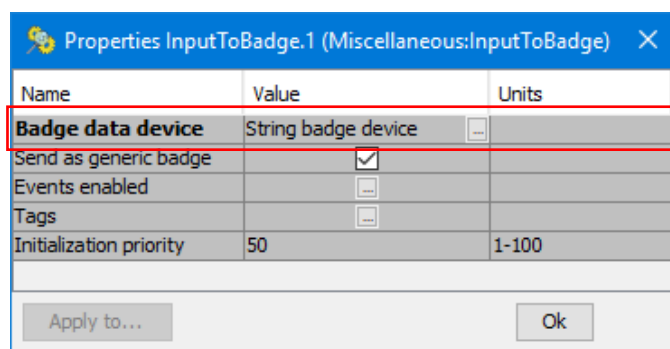


Property	Value
Inputs (Messages from device) > Add 	Add one input: Label name: plate (for example) State: active Command: .*\\r Use as pattern (use regular expressions): <input checked="" type="checkbox"/> Pattern match length: 0 Use message as label: <input checked="" type="checkbox"/>
Number of string inputs	0
Number of label value outputs	1

5. Right-click the **StringFormatter** AEbc and click **Properties**.
6. Set **Formatter** to **Truncate White Spaces**.



7. Right-click the **InputToBadge** AEbc and click **Properties**.
8. Set **Badge data device** to **String badge device**.





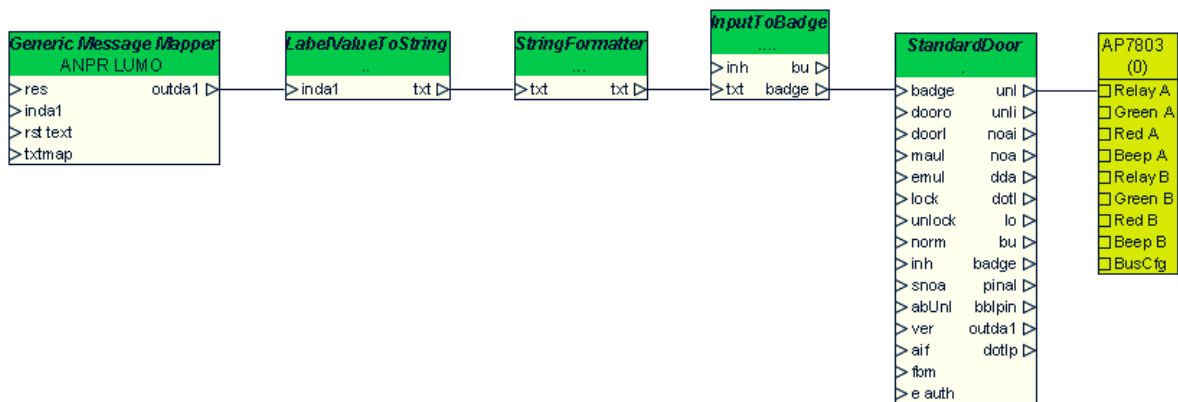
9. Right-click the **StandardDoor AEbc**, and click **Properties**.
10. Set the **Primary Identifier type** to **Generic ▼**, and adjust the **Input Settings** parameters as shown below:

Input Settings	Value	AEserver Settings	Value
Sub type	0	Identification type	AlphaNumeric
Data type filter	Cleared	Identifier length	0
Format	Ascii-AlphaNumeric ▼	Identifier minimum value	
Badge number		Identifier maximum value	
Bit position	0	Sub type	0
Length	0 bytes	Customer code type	AlphaNumeric
Customer code		Customer code length	0
Fixed code	Cleared		
Format	Ascii-AlphaNumeric ▼		
Bit position	0		
Length	0 bytes		
Target Identifier			
Type	Generic ▼		
Reverse bytes	Cleared		



The identifier type settings must match the settings in AEOS, see section 5.4.

11. Press **CTRL+E** and click **Yes** to deploy the configuration.
12. Close AEmon.



Configuration example



5.4 Configuring AEOS

To configure AEOS for the ANPR LUMO reader, take the following steps:

Step 01

Define the identifier type in AEOS

To define the identifier type, which is a 'generic' AEOS identifier type, do as follows:

1. Go to **Administration > Maintenance > Identifiers > Identifier types**.
2. Click **New**.
3. Enter a **Name** (in this example: ANPR) and **Sub type**, **Customer code type**, **Identifier length**, **minimum value** and **maximum value**.

Generic			
Name*	ANPR	Identification Type	Alpha numeric
Sub type*	0	Identifier length*	0
Customer code type*	Alpha numeric	Identifier minimum value	
Customer code length	0	Identifier maximum value	
Customer code		Identifier conversion	No conversion
		Tokengenerator	No Generator
		Printable	<input type="checkbox"/>
		Encode Card	<input type="checkbox"/>
		Use external label	<input type="checkbox"/>
		Print receipt	<input type="checkbox"/>
		Add leading zeroes	<input type="checkbox"/>
		Leading character	0
		Thirdparty label	<input type="checkbox"/>



The identifier type settings must match the settings in AEmon, see sections 5.2 and 5.3.

4. Click **OK**.

Step 02

Issue the licence plate number as identifier

To issue the licence plate as an identifier, do as follows:

1. Go to the **Visitor/Employee/Contractor > Announce** screens.
2. In the **Identifier Type** field, select the correct identifier type (in this example: ANPR) and enter the licence plate number.
3. Click **OK** to save the carrier data.

Identification	
Identifier type	ANPR
Identifier	L87012

Issue a license plate number as an identifier in AEOS

**Step
03****Check the AEOS event log**

1. Go to **Monitor >Events >View log**.
2. Click **Search**.
3. Check if AEOS correctly processes the licence plate number.

Timestamp ▼	Event type	Source	Details
11/3/2018 15:34:16	Authorized badge	Door1 (StandardDoor.1)	ANPR L87012 (Nedap) direction: Unknown

For more information on the AEOS event log, see the *AEOS user manual*.



6. ANPR LUMO via Serial

6.1 Configuring the ANPR LUMO reader

When the ANPR LUMO reader is correctly mounted and connected (see the *ANPR LUMO Install Guide*), the next step is to configure it to send the license plate number string to the AEOS blue controller.

To configure the ANPR LUMO reader, take the following steps:

Step 01

Configure the ANPR LUMO reader

1. Log in to the NEDAP ANPR LUMO software.
2. Go to **CONFIGURATION > ACTIONS > READ**.
3. Click **ADD** and select **SERIAL**.

The screenshot shows the NEDAP ANPR LUMO software interface. The top navigation bar includes 'HOME', 'TEXT RESULT', 'ACCESS LISTS', 'CONFIGURATION', 'SYSTEM SETTINGS', and 'LOG OUT'. The 'CONFIGURATION' tab is active. Below the navigation bar, there are tabs for 'CAMERA', 'ANPR', 'ACTIONS', and 'INSTALLATION PARAMETERS'. The 'ACTIONS' section is expanded to 'READ'. The 'ADD' button is highlighted in orange. The 'SERIAL' action is selected in the dropdown menu. A red box highlights the 'SERIAL ACTION' configuration fields, which include a 'BAUD RATE' field set to '9600' and a 'MESSAGE' field containing '%L%P%CR%'. There are 'ON' and 'ENABLE' buttons next to the 'SERIAL ACTION' label. At the bottom right of the configuration area, there are 'CANCEL' and 'SAVE' buttons.



- Enter the correct settings, as shown in the table below.

Property	Value
SERIAL ACTION ENABLE	ON
BAUD RATE	9600
MESSAGE	%LP%%CR%

- Click **SAVE**.

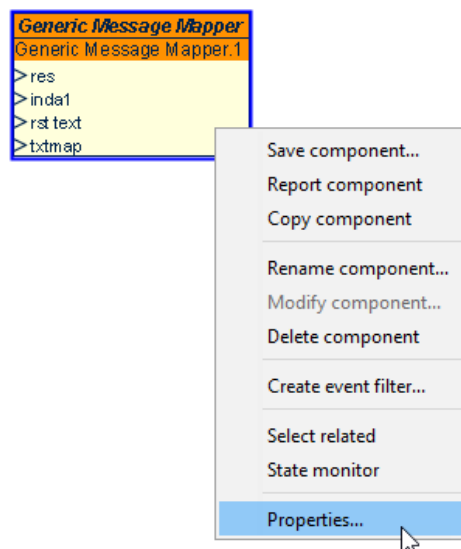
6.2 Configuring AEmon

To connect an ANPR LUMO camera to AEOS via RS485, use an AP7031 AEOS Blue door interface in combination with the Generic Message Mapper AEbc. To configure the AEOS Blue door interface for the ANPR LUMO reader in AEmon, take the following steps:

Step 01

Configure the identifier type in AEmon

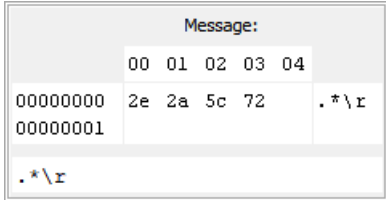
- Start AEmon
- In AEmon, create/open the configuration, including the AP7031 AEOS Blue door interface, the Generic Message Mapper AEbc, the LabelValueToString AEbc, the StringFormatter AEbc, the InputToBadge AEbc and the StandardDoor access point (see the *AEOS Access Points and Entrances* manual).
- Right-click the **Generic Message Mapper** AEbc and click **Properties**.





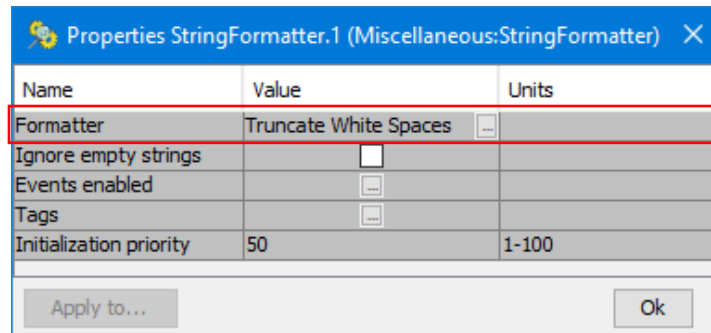
- Adjust the settings as shown below.
(See the *AEbc Message Mapper descriptions* manual for more information.)

Property	Value
IO server type > IO Provider Type	Generic Serial Protocol ▼
Baudrate	9600 ▼ (same value as in the LUMO software)
Datalength	8 ▼
Stopbits	1 ▼
Parity	None ▼
Serial interface	RS485 ▼
Inputs (Messages from device) > Add	<p>Add one input:</p> <p>Label name: plate (for example)</p> <p>State: active</p> <p>Command: <code>.*\r</code></p> <p>Use as pattern (use regular expressions): <input checked="" type="checkbox"/></p> <p>Pattern match length: 0</p> <p>Use message as label: <input checked="" type="checkbox"/></p>
Number of string inputs	0
Number of label value outputs	1

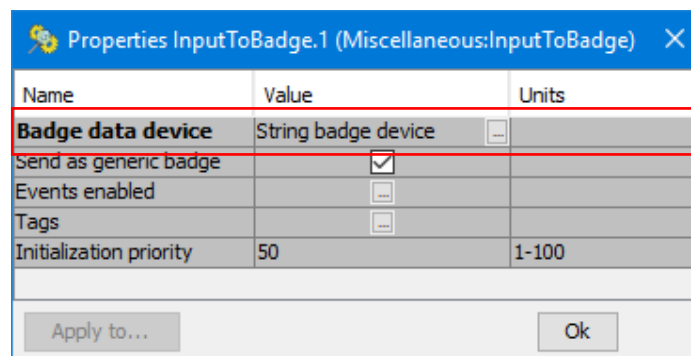




5. Right-click the **StringFormatter** AEbc and click **Properties**.
6. Set **Formatter** to **Truncate White Spaces**.



7. Right-click the **InputToBadge** AEbc and click **Properties**.
8. Set **Badge data device** to **String badge device**.





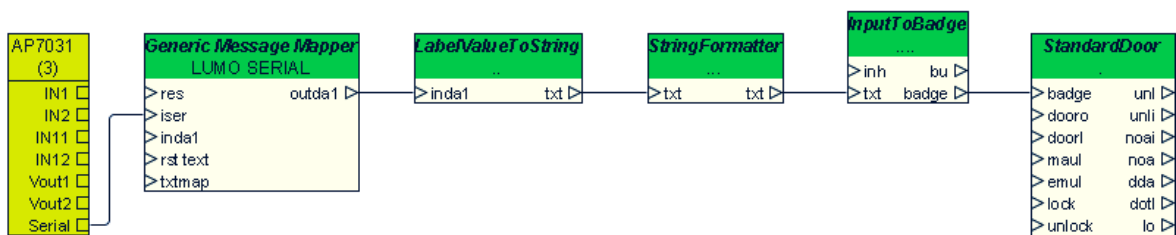
9. Right-click the **StandardDoor AEbc**, and click **Properties**.
10. Set the **Primary Identifier type** to **Generic ▼**, and adjust the **Input Settings** parameters as shown below:

Input Settings	Value	AEserver Settings	Value
Sub type	0	Identification type	AlphaNumeric
Data type filter	Cleared	Identifier length	0
Format	Ascii-AlphaNumeric ▼	Identifier minimum value	
Badge number		Identifier maximum value	
Bit position	0	Sub type	0
Length	0 bytes	Customer code type	AlphaNumeric
Customer code		Customer code length	0
Fixed code	Cleared		
Format	Ascii-AlphaNumeric ▼		
Bit position	0		
Length	0 bytes		
Target Identifier			
Type	Generic ▼		
Reverse bytes	Cleared		



The identifier type settings must match the settings in AEOS, see section 6.3.

11. Press **CTRL+E** and click **Yes** to deploy the configuration.
12. Close AEmon.



Configuration example



6.3 Configuring AEOS

To configure AEOS for the ANPR LUMO reader, take the following steps:

Step 01

Define the identifier type in AEOS

To define the identifier type, which is a 'generic' AEOS identifier type, do as follows:

1. Go to **Administration > Maintenance > Identifiers > Identifier types**.
2. Click **New**.
3. Enter a **Name** (in this example: ANPR) and **Sub type**, **Customer code type**, **Identifier length**, **minimum value** and **maximum value**.

Generic			
Name*	ANPR	Identification Type	Alpha numeric
Sub type*	0	Identifier length*	0
Customer code type*	Alpha numeric	Identifier minimum value	
Customer code length	0	Identifier maximum value	
Customer code		Identifier conversion	No conversion
		Tokengenerator	No Generator
		Printable	<input type="checkbox"/>
		Encode Card	<input type="checkbox"/>
		Use external label	<input type="checkbox"/>
		Print receipt	<input type="checkbox"/>
		Add leading zeroes	<input type="checkbox"/>
		Leading character	0
		Thirdparty label	<input type="checkbox"/>



The identifier type settings must match the settings in AEmon, see section 6.2.

4. Click **OK**.

Step 02

Issue the licence plate number as identifier

To issue the licence plate as an identifier, do as follows:

1. Go to the **Visitor/Employee/Contractor > Announce** screens.
2. In the **Identifier Type** field, select the correct identifier type (in this example: ANPR) and enter the licence plate number.
3. Click **OK** to save the carrier data.

Identification	
Identifier type	ANPR
Identifier	L87012

Issue a license plate number as an identifier in AEOS

**Step
03****Check the AEOS event log**

1. Go to **Monitor >Events >View log**.
2. Click **Search**.
3. Check if AEOS correctly processes the licence plate number.

Timestamp ▼	Event type	Source	Details
11/3/2018 15:34:16	Authorized badge	Door1 (StandardDoor.1)	ANPR L87012 (Nedap) direction: Unknown

For more information on the AEOS event log, see the *AEOS user manual*.



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Nedap Security Management

P.O. Box 103
NL - 7140 AC Groenlo
+31 (0)544 471 111
info@nedapsecurity.com
www.nedapsecurity.com