

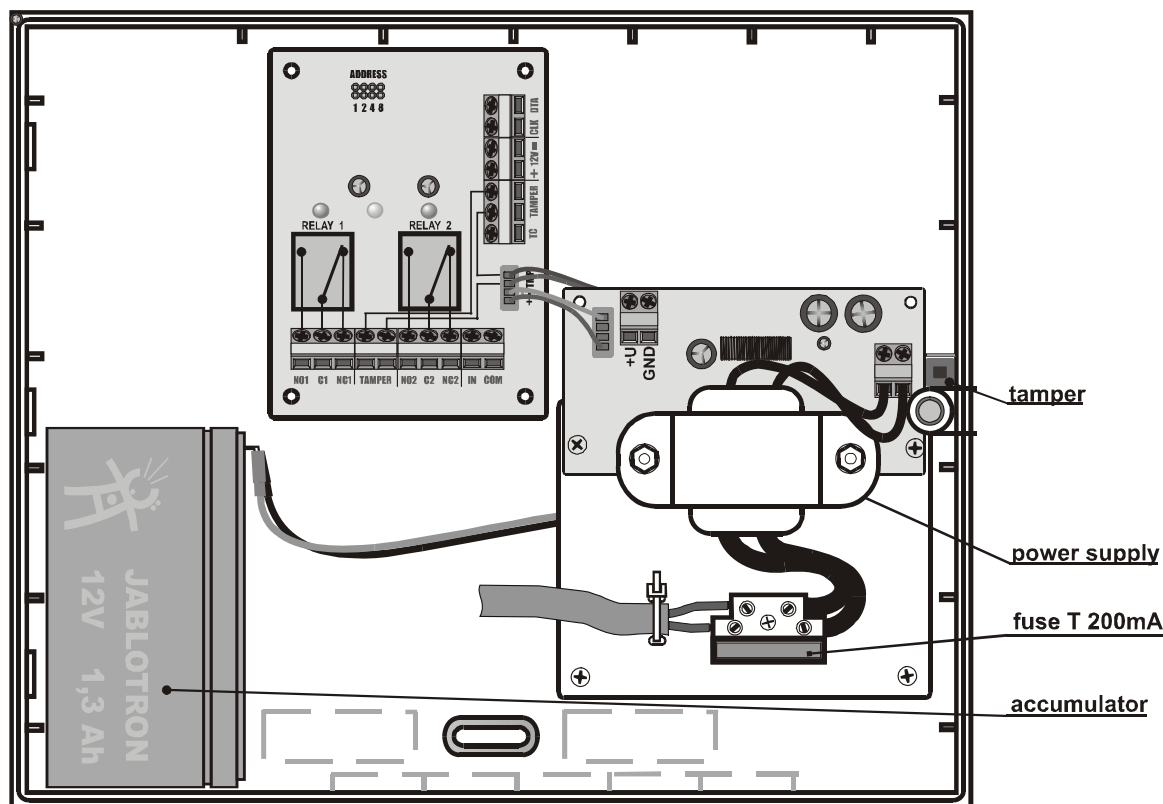
# The AS-80 access system control unit

The AS-80 access control system can operate electric devices such as door locks, gates or security systems. It consists of two parts - a JA-80H keypad and/or JA-80N RFID card reader (delivered separately) and the AS-80 control unit with built-in backup power. One or two keypads can be wired to each control unit (e.g. they can be installed on both sides of a single door).

A separate control unit with a built-in backup power supply placed in a protected (indoor) area insures maximum security.

Communication via the cable from the keypad to the control unit is encrypted with a sophisticated code protocol. This ensures that there is no other way to operate the device than by entering a valid access code. The system can handle 120 user codes and RFID cards. An exit button can be used for easy door opening from inside.

The keypad itself is made of solid plastic, has a backlight for easy operation and it is suitable for vandal-proof outdoor applications.



## Installation

Installation shall only be undertaken by technicians holding a certificate issued by an authorized distributor.

Up to 2 keypads / readers (JA-80N/H) can be connected to the AS-80 unit. The **first keypad** must be set as a **master** and all programming can only be done using the master keypad. The second (**slave**) controller can be a keypad or an RFID reader.

A keypad or reader can be installed outdoors (IP-65).

1. remove the front panel - unscrew the back-housing screw
2. fix the bottom housing onto the desired place (check that the tamper spring is properly pushed down).
3. connect the keypad's cable to the control unit's AS-80 terminals using 8-wire shielded cable, max. length 150 m
4. put the front panel back and fix it using the screw
5. fix the AS-80 unit onto the desired place
6. connect the cable in the AS-80 unit according to the description below

**Note, if you change a master keypad, you must set the system up again!** If a second keypad is used then it should be placed at least 50cm from the master keypad.

## Control unit terminal descriptions:

**C1, NC1, NO1** relay switch-over contact, max. 1.5 A / 24 V  
**C2, NC2, NO2** relay switch-over contact, max. 1.5 A / 24 V  
**TMP, TMP** NC tamper output, max. 0.1 A / 25 V;  
**IN, COM** Exit button switch input

## Connection of the keypad / reader to the AS-80 unit

Keypad wire terminal in the control unit

**Red** + 12V

**Blue** GND

**Green** CLK

**Brown** DTA

**Yellow** **not connected** (used for entering setting mode, it should be isolated after installation)

**Pink** not connected  
**Grey, White** TMP

## LED indicators on the control unit:

**Red 1** ON=output relay 1 is triggered  
**Red 2** ON=output relay 2 is triggered  
**Green** ON=Power on

## LED indicators on the keypad:

Status	Open	System	
Red	Green	-	User mode
Green	Green	-	Service mode
Red	Green	-	The relay is switched on (door is open)
Red	Green	-	Waiting for confirmation by a code/RFID card
-	flashing	Orange	Master and Installer codes are not programmed

## First powering-up

**1. Set the keypad's/reader's operation mode.** The first keypad (or if only one keypad will be used in the system) must be set as a **master**. A second keypad/reader can be added to the system at any time and must be set as a **slave**.

To open setting mode:

1. Disconnect the power
2. Disconnect the DTA (Brown) and connect it to the yellow wire
3. Restore the power (the keypad starts continuously sounding)
4. Disconnect the Brown and Yellow wires

To set the JA-80H keypad as a **master**:

- press **0** and when the keypad beeps press **4**

To set the keypad / reader as a **slave**:

- If you have a JA-80H keypad, press **0** and when the keypad beeps press **0** again

- If you have a JA-80N proximity reader, present the RFID card 10 times and when the reader performs a confirmation double-beep, present the card 10 times again
- 5. After setting master or slave operation mode the reader will exit setting automatically
- 6. Disconnect the power, re-connect the DTA terminal (brown) wire and restore the power

**Note:** Further system programming can only be done on the master keypad.

2. On the **master** keypad set the **service** and **master** card and/or code as follows:



1. Disconnect the power
2. Disconnect the CLK terminal (Green wire) and connect it to the yellow wire
3. Restore the power
4. After the reader starts sounding, disconnect the green and yellow wires
5. Choose master code or master card
  - a) Enter the new **master code** (3 to 6 digits) and press **# #** (only code)
  - b) Or press **#** and present the card (only card)
  - c) Or enter the new **master code** (3 to 6 digits) and press **#**, present **master card** or press **#** again.

6. Choose **service code** or **service card**
  - a) Enter the new **service code** (3 to 6 digits) and press **# #** (only code)
  - b) Or press **#** and present the card (only card)
  - c) Or enter new **service code** (3 to 6 digits) and press **#**, present the **service card** or press **#** again
7. Disconnect the power, connect the CLK (Green wire) wire back and restore the power

**Note:** If the master or service code is forgotten or the card is lost, then **by this procedure it is possible to perform a factory default reset of the keypad**

*The master and service code/card can only be used for programming the system - it cannot be used for system operation.*

### Service mode

Enter **service code** or use the **service card**. The OPEN  LED and STATUS  LED light green (service mode).

To program any optional parameters always press all 13 digits C1 to C13 according to following table. After entering the last digit the reader saves all the data, and exits programming mode automatically.

*Note: If you don't press a key within 20 seconds, service mode will be exited without saving any data.*



Parameter	Value	Description	Default
C1 and C2	00–99	C1 and C2 is a period of time during which the relay set as the <b>Door lock</b> is switched on (01 – 99 sec.). If 00 is entered, then the output will be set to a latch mode (it toggles its status whenever a valid assigned code or card is entered).	<b>4 sec</b>
C3 and C4	00	No meaning, enter <b>00</b>	
C5	0,4,6,7	RELAY 1 output reaction: [0] – <b>Off</b> = no reaction [4] – <b>Door lock</b> = switched on for a time specified in parameters C1-C2 when a correct code / card is entered [6] – <b>Tamper alarm</b> = after 3 unsuccessful attempts at entering a code or card the output will produce a 4 second long pulse [7] – <b>Door bell</b> = whenever the F1 or F2 key on the keypad is pressed, the output will produce a 5 second long pulse	<b>Door lock</b>
C6	0,4,6,7	RELAY 2 output reaction – setting parameters are the same as for RELAY 1	
C7	0	No meaning, enter <b>0</b>	
C8	0 – 2	Function settings for IN: [0] – <b>Off</b> = no reaction [2] – <b>Exit button switch</b> = connecting IN to GND will have the same effect as entering a valid user code	<b>Exit button switch</b>
C9	0	No meaning, enter <b>0</b>	
C10	0 – 1	The access mode for the master keypad: [0] - <b>Card or Code</b> [1] - <b>Card and Code</b>	<b>Card or Code</b>
C11	0 – 1	The access mode for the slave keypad / reader: [0] - <b>Card or Code</b> [1] - <b>Card and Code</b>	<b>Card or Code</b>
C12	0 – 1	<b>Tamper alarm indicated by an internal buzzer</b> [0] – Disabled [1] – Enabled	<b>Disabled</b>
C13	0	No meaning, enter <b>0</b>	

Configuration parameters in service mode

**Example:** by entering 0200460200100 you will set – Door unlock time 2 seconds, RELAY1 reaction Door lock, RELAY2 reaction tamper alarm, IN reaction exit button switch, master keypad **access** Card or Code, slave keypad **access** Card and Code, Alarm indicated by buzzer disabled.

### Access code setting

120 different access codes and/or cards can be used. The factory default codes are blank. All access codes can have from 3 to 6 digits.

Enter the master code or use the master card. The OPEN  LED and STATUS  LED are lit (access code setting mode).

#### • Setting access codes and RFID cards:

Use the sequence 3 ID CODE # Card

Where: **ID** is a user number (from 000 to 119)  
**CODE** is a new code (3 to 6 digits), after pressing **#** present the RFID card which will be assigned to the same user position. *If the card is not required, press the # button again.*

#### • Deleting user codes and RFID cards:

Use the sequence 9 ID

Where: **ID** is a user number (from 000 to 119)

#### • Delete all access code / cards

Use the sequence \* 0

To exit, press the # key

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#### **Note:**

- If you assign a new user code to an ID that is already occupied by some other user, the original code will be deleted.
- Any attempt to program an already registered card or code will be indicated as a programming error.
- If no button is pressed for 20 seconds the current sequence will be terminated. If no button is pressed for 150 seconds then setting mode will be exited.

### Operation

By entering a proper access code followed by the # key and/or presenting an RFID card, the output set as **Door lock** will be switched on for a set period of time (confirmed by 3 short beeps). If the latch mode has been set, then every proper code entry will toggle the status of the output – ON-OFF-ON-.

Whether the RFID card must be followed by the code or not can be set separately for master and slave keypads. Therefore, for example, for a higher level of security, to enter the premises both a card and code could be required, and to leave the premises only a card or code could be required.

### Notes:

If it has been set that both a code and card must be used for access, then first the card must be used (confirmed by 2 shorts beeps) and only then can the user code be entered.

If access is denied, the keypad will generate a long acoustic signal.

If the wrong code has just been entered press the # button, the keypad will then make a long beep. If set, then after three unsuccessful attempts to enter the code or card a tamper alarm will be triggered.

If the **Exit button** is connected (terminals IN,COM) and the input is set to the exit button function, then every activation of the button (connection of the IN to COM) will have the same reaction as entering a proper code.

Pressing the F1 or F2 button on the keypad will result in activation of the output programmed as **Door bell** for 5 seconds.

### Specifications

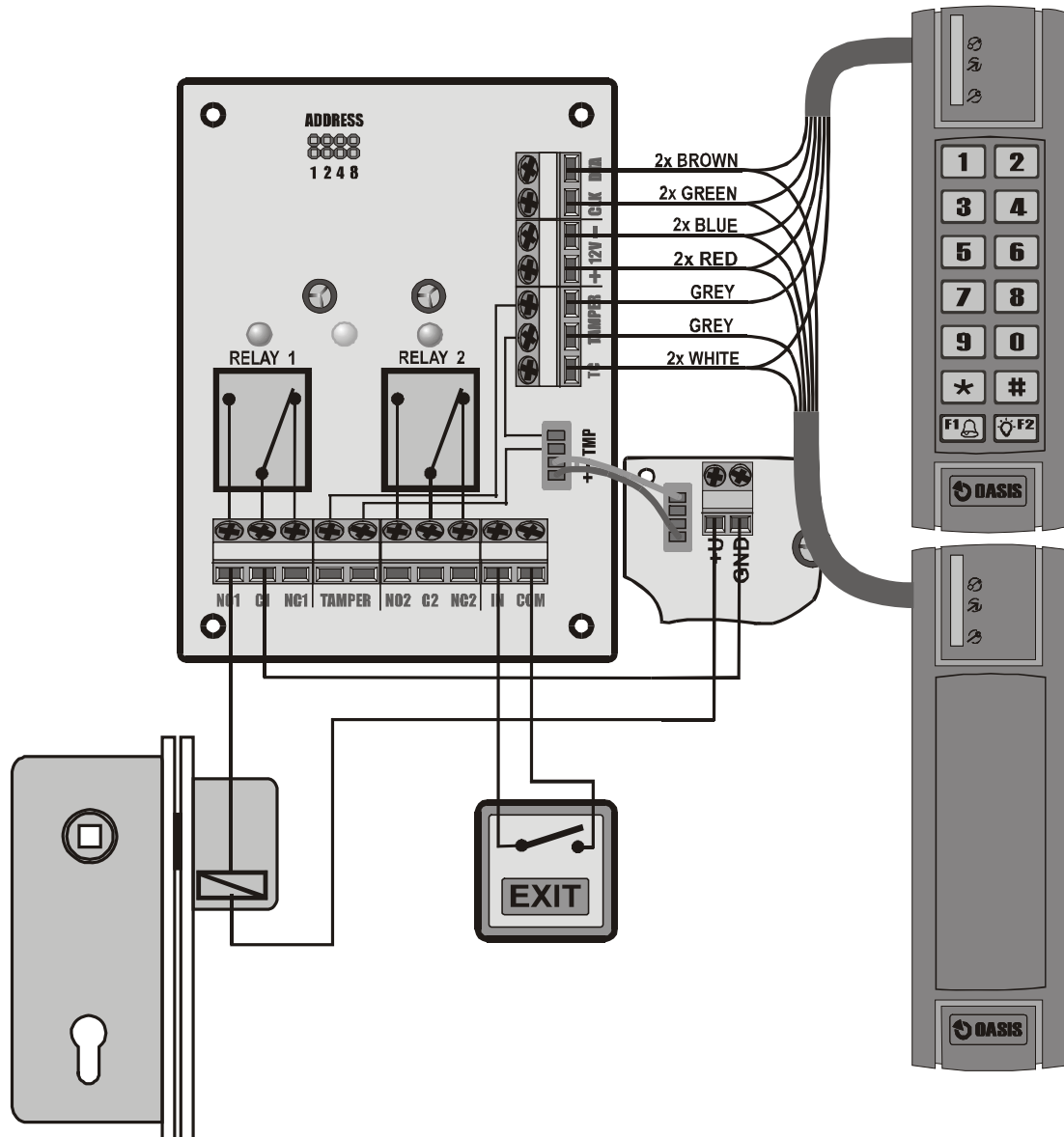
Power supply	10 – 16V DC
Consumption	60 mA
Nominal output current	350 mA
Max. instantaneous output current	1A
RFID working range	up to 12 cm
RFID cards	EM UNIQUE 125 kHz, ASK modulation, 64 bits (compatible with EM4100/4102)
Maximum cable length between keypads and AS-80 unit	50 meters
<b>AS-80</b>	
Ingress protection	IP 30, EN 60529
Operational environment EN 50131-1	II. Indoor General, EN 50131-1
Operational temperature range	-10 to +40 °C
Dimensions	258 x 214 x 77 mm
<b>JA-80H, JA-80N:</b>	
Environmental class	Class IV, Outdoor General
Operational temperature: (according to EN 50131-1)	-25°C to +60°C (non-condensing).
Ingress protection	IP 65
Dimensions	46 X 150 X 25 mm
Access class	
Identification class	2 (JA-80N), 3 (JA-80H), EN50133-1
Comply with	ETSI EN 300 220, EN 50130-4, EN 55022, ČSN EN 60950-1
Can be operated according to ERC REC 70-03	



JABLOTRON ALARMS a. s. hereby declares that the AS-80 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com), Technical Support section



**Note:** Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use



Example of application

Table: List of users

[illegible]