



PAC 212 Access Controller

Install Guide

For download only

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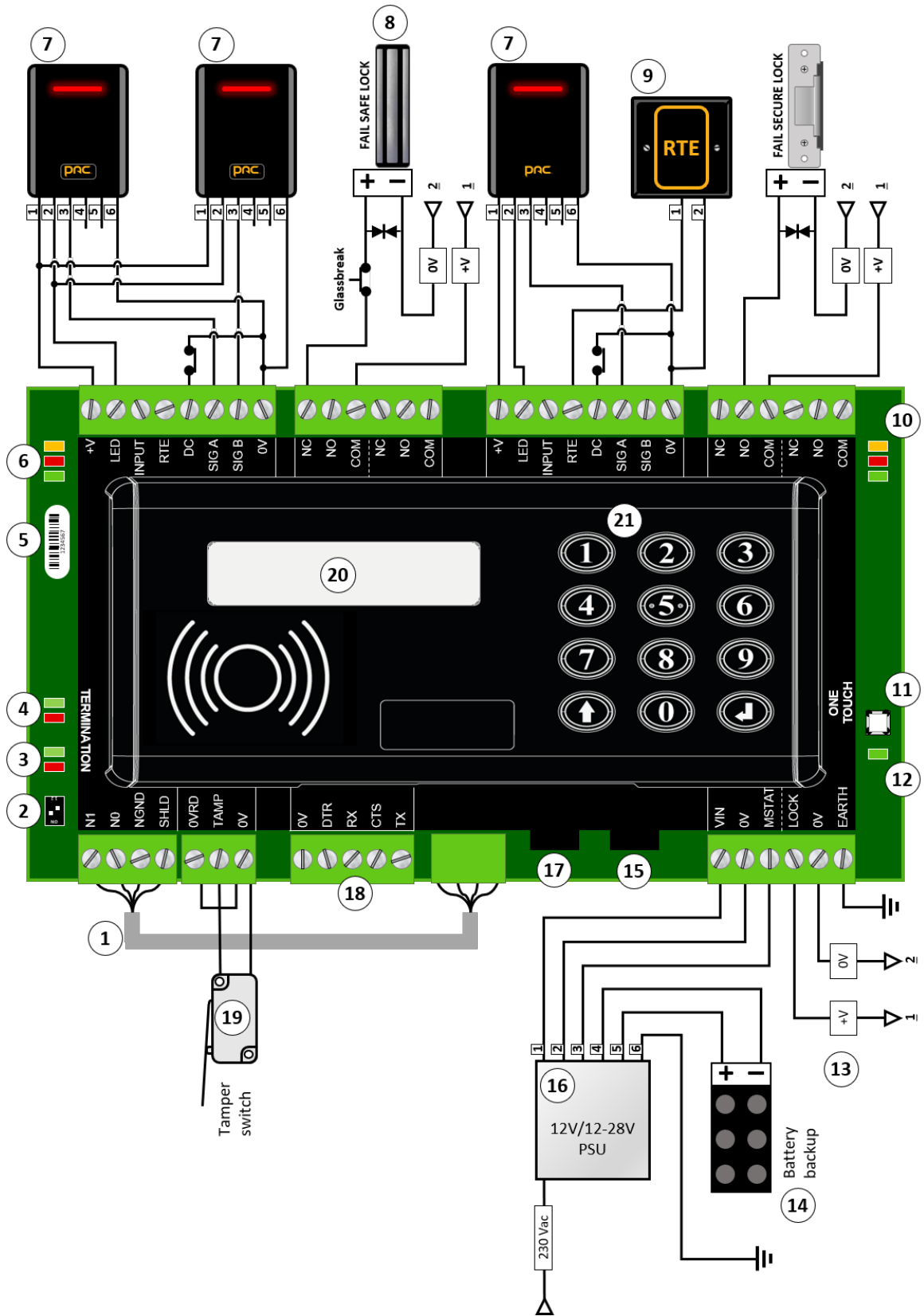
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1 Wiring Diagram



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Legend for Wiring Diagram

1	RS-485 connection
2	Dipswitch for Reader voltage selector (12/24V or 5V, default = 12/24V)
3	RS-485 status LEDs
4	RS-232 status LEDs
5	Serial Number and Barcode
6	Door 1 LEDs
7	Reader <div style="text-align: right; padding-right: 20px;"> +V 1 Red LED 2 Brown SIGA/SIGB 3 White OV (tamper/DC - door contact) 4 Blue OV (sounder) 5 Yellow OV 6 Black </div>
8	Fail-Safe Lock
9	Request to Exit <div style="text-align: right; padding-right: 20px;"> RTE 1 Blue OV 2 Black </div>
10	Door 2 LEDs
11	One-Touch™ button
12	System status LED
13	Power Access
14	Battery Backup
15	DO NOT USE
16	12V/24V Power Supply Unit <div style="text-align: right; padding-right: 20px;"> VIN 1 Orange OV 2 White MSTAT 3 Pink (Battery) + 4 Red (Battery) - 5 Black EARTH 6 Green/Yellow </div>
17	USB The USB pen must be compatible and FAT16 or FAT32 format (see TB224)
18	Future enhancement
19	Tamper Switch
20	LCD Display
21	Keypad

2 Introduction

This document is intended for experienced engineers who are familiar with PAC products and health and safety considerations.

Identification Markings

Manufacturer, model identifier and input rating are given on the label attached to the unit.

Tamper and Override Terminal

Because tamper and override are normally closed switches, use a short piece of cable to link the TAMP and 0V terminals and OVRD and 0V terminals before powering up. If these terminals are required, remove the factory links and connect to an N/C switch.

Lock Suppression

All locks must be fitted with a means of suppressing back EMF (“spikes”) generated by most electric releases, especially magnetic locks. All readers and controllers supplied by PAC are supplied with a Metal Oxide Varistor (MOV). If large currents are used (i.e. >1A) use the large MOV supplied with the controller. If small currents are used (i.e. <1A) use the small MOV supplied with the reader. The MOV will prevent long term damage being done to the controller. Whenever possible this device should be fitted across the lock terminals. If for any reason, the lock terminals are inaccessible, the MOV may be fitted across the lock output. If a diode is already connected across the lock terminals, this must be removed, otherwise it will override the action of the MOV.

Lock Circuit Protection

Lock circuits must be fitted with a fuse to protect the power supply from short circuit faults. For lock currents <1A fit the 1A fuse provided between ACCESS LOCK and LOCK COM. For lock currents >1A see TB262 — Lock Circuit Protection on the Knowledge Base.

Lock Relays

For PSUs rated >3A, the lock relays are protected by 3A @ 30V circuit breakers in line with the RELAY COM connection. These are automatically reset when overload has been removed; both lock outputs are independent.

Cable Lengths

Reader	0.22mm ² / 22AWG SWB	70m
Power / Earth	0.75mm ² / 18AWG	4.5m

- All wire is to be rated to minimum NEC requirements for low voltage installations, e.g. 300V at 105°C.
- Cable gauges listed above are minimum size recommendations; special conditions may require larger gauges. Under no circumstances should cable gauges be reduced from those listed above.
- The use of twisted pair cable is strongly recommended to reduce noise conducted on the cable, as this may cause communication issues between modules.
- It is the installer’s responsibility to use fire rated wire when required, i.e. plenum rated ceilings.
- For more information, see TB228 — Installation Best Practice on the Knowledge Base.

3 Installation

Please read all instructions and retain for future reference. This equipment is to be installed and serviced only by trained service personnel. Remove power to the unit before servicing the internal power supply.

Mounting the Enclosure

Mount the enclosure on a flat surface. Use appropriate fixings, such as wall plugs, for the surface on which you are mounting the enclosure. This equipment is intended for use in dry indoor environments only.



For metalwork enclosure installation details go to <https://pacgdx.com/products/pac-enclosures>

Connection to AC Mains

Install in accordance with all applicable national and local wiring regulations. This equipment must be connected to an earthed AC Mains socket outlet. The outlet must be located close to the unit and easily accessible.

This equipment is intended for operation on AC Mains nominally rated 100-240 V, 47-63 Hz. The input power requirement is 800 mA.

Selection of the proper power cord is essential for safe operation. When selecting the power cord for the unit, observe the following:

Nth America	Cord type SJ or SO or better, rated VW-1 or FT2, minimum 18AWG, UL or CSA approved.
Europe	Cord type H05VVF3G0.75 or better, with HAR marking.
Other regions	Approved jacketed cord, 18AWG minimum, 3 conductors.
All regions	Approved cord plug rated minimum 10A, of a type complying with all national wiring regulations.

Correct wiring and securing of the power cord to the unit is essential for safe operation. When connecting the power cord to the unit, please observe the following:

- Flexible cord must enter through one of the conduit knock-outs on the side of the enclosure. Cord should not enter the unit through a rear opening.
- Proper strain relief must be provided at the cord entry, using a properly sized strain relief bushing: Heyco RDD 201 or similar.

Correct routing of the flexible power cord between the unit and the mains socket outlet is essential for safe operation. When routing the power cord, please observe the following:

- Observe all local and national wiring regulations.
- Do not run power cord through holes in walls, structural ceilings, suspended ceilings, dropped ceilings, or floors.
- Do not run power cord through doorways, windows, or similar openings.
- Do not attach power cord to building surfaces.
- Ensure that the socket outlet is easily accessible and unobstructed.

4 Features

Admin PIN

Each PAC 212 is supplied with a unique administrative PIN. This is derived from the last four digits of the serial number printed on the unit.

Administrator token

Enables access to the Admin menu. The administrator token is numbered Editor 00.

Door monitoring

If enabled, a door is monitored using door contacts to see if it is open. If the door is opened, but no valid key was presented and the RTE switch was not pressed, a Door Forced alarm is generated.

Door open time

Must be specified when door monitoring is enabled. If the door remains open for longer than the set time, a Door Open alarm is generated.

Duress

If threatened, a keyholder may enter PIN+1, e.g. 1235 instead of 1234. This grants access but generates a Duress alarm. The PIN+1 affects the whole PIN, not just the last digit — e.g. the duress number for 6789 is 6790. Duress is only supported for PAC Legacy PIN readers or readers which have been set to PAC Legacy PIN mode.

Editor token

Enables access to the Editor menu. You can define up to 20 editor tokens, numbered Editor 01–Editor 20.

Extra door time

Determines the extra time that the door should remain unlocked for keyholders who need more time to get through the door.

First key open

If a keyholder unlocks a door which has the first key open door mode profile applied, at a time specified by the first key door mode profile, using a key which has first key status, the door remains unlocked until the end of the time specified by the first key door mode profile. When you specify first key status for a key, you are prompted to apply the first key open door mode profile (time profile 9) to the appropriate door(s).

Free exit

If enabled, users may open the door without using the RTE switch and a door forced alarm will not be generated; e.g. for emergency exits.

Hard anti-passback

Prevents key sharing. You can set local hard anti-passback or specify a hard anti-passback timeout. When you specify local hard anti-passback or a hard anti-passback timeout for a door, you are prompted to apply the hard anti-passback door mode profile (time profile 10) to the door.

Hard anti-passback timeout

If enabled, during the times specified by the hard anti-passback door mode profile, a keyholder may not pass through this door into the same area twice within the timeout period — the keyholder must leave the area first.

Local hard anti-passback

If enabled, during the times specified by the hard anti-passback door mode profile, a keyholder may not pass through this door into the same area twice — the keyholder must leave the area first.

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Lock release time

Determines how long a door is unlocked when a valid token is presented or RTE is pressed.

Readers

The PAC 212 supports 4 readers. Reader 0 and Reader 1 are SIG A and SIG B on Door 1; Reader 2 and Reader 3 are SIG A and SIG B on Door 2 respectively.

RTE

Request to exit — a switch that a keyholder can press to unlock a door, which must be an N/O switch.

Set / reset

If enabled, a door remains unlocked after a valid access using any key or when an RTE switch is pressed. The door will be locked again when any valid key is presented or when an RTE switch is pressed.

System type

The PAC 212 can use one of two different system types: residential or commercial. The residential system supports up to 256 numbered flats, each of which can contain up to 8 coloured keys. The commercial system supports up to 2048 numbered keys.

Time period

Each time profile may contain 4 time periods: A, B, C and D. A time period defines a start time, an end time and a day mask which specifies the days of the week on which this time period applies.

Time profile

You may define up to 10 time profiles. Time profiles 1–8 are simple time profiles which can be applied to a key or to a door to allow access during certain times only. Time profile 9 is a first key open door mode profile; this may be applied to a door to enable first key open during certain times. Time profile 10 is a hard anti-passback door mode profile; this may be applied to a door to enable hard anti-passback during certain times.

USB

You can save the database — including settings, flats and / or keys, and optionally events — to a USB drive. You can also load settings, flats and / or keys from the USB drive to the PAC 212. To view the saved database on a PC, or export it to CSV format, you can use the 212 File Viewer supplied with PAC SecureNet or EasiNet Residential. See TB268 — PAC 212 Database Viewer on the Knowledge Base.

User access levels

The PAC 212 supports 10 user access levels: no access, access with no time profile, and access with time profiles 1–8.


Variants

The PAC 212 has two variants: LF (low frequency) and HF (high frequency). The LF variant can only read LF keys. The HF variant can only read HF keys, i.e. OPS or OPS Lite.

5 Specifications and Standards

Temperature	Operating — interior equipment	0°C – 35°C
Humidity	Operating for 24 hours	10-85% RH @ 30±2°C [85±4°F]

Battery

	<p>Risk of explosion if battery is replaced by an incorrect type.</p> <p>Use only 12V sealed lead acid battery.</p> <p>Dispose of used batteries in accordance with local and national regulations.</p>
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Approvals, Directives and Regulations

Hereby, Comelit-PAC Limited declares that the radio equipment type residential, commercial or light industry door entry product is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

<https://pacgdx.com/compliance-declarations>

Declaration of Conformity available on request.

RoHS	2011/65/EU
WEEE	2012/19/EU



6 First Setup

You will be prompted to setup the PAC 212 the first time it is switched on.

To set up the PAC 212:

1. Press and hold **⓪** for 5 seconds.
 2. **Press ↵** .to start setting up the PAC 212.
 3. Enter the Admin PIN for this PAC 212, then **press ↵** .
 4. HF variant only – press **①** to select OPS or **②** to select OPS Lite, then **press ↵** .
 5. Present the required administrator token.
 6. Select the system type – press **①** for residential or **②** for commercial, then **press ↵** .
- The PAC 212 is restarted and the settings are applied.

7 Programming

7.1 Enter a Menu

Use the Edit menu to set up flats (residential) and keys (residential / commercial), view PIN numbers and events. The Admin menu enables you to set up doors / time profiles, configure the system, load data from / save data to USB drive and configure editor tokens.

7.1.1 To enter the Admin menu with a token:

1. Present the administrator token to the PAC 212.

7.1.2 To enter the Admin menu without a token:

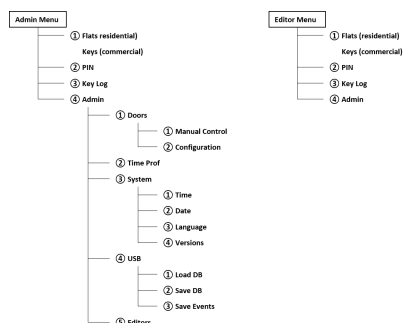
1. Press and hold ② for 5 seconds.
2. Enter the Admin PIN for this PAC 212, then press ↵.

7.1.3 To enter the Editor menu:

1. Present an editor token to the PAC 212.

7.2 Use the Menu

The Admin menu and the Editor menu have a tree-like structure of submenus and commands. Each submenu or command has an associated number.



To use the menu:

- Press a number key to access a submenu or command.
- Press ↑ to go back up to the menu or submenu above.
- Follow the instructions on the LCD display to enter further information.
- The top line of the LCD display shows the currently selected submenu or command and a scrolling list of further options that you can select.
- The bottom line of the LCD display shows a blinking cursor so that you can enter data or a list of options. Options shown in lower case are off / inactive; options shown in UPPER CASE are on / active.
- Changes to keys — additions, deletions or configuration — are applied immediately, before you log out of the menu. Other changes are only applied when you log out of the menu.

7.3 Residential

7.3.1 Add / edit a flat

1. In the Admin menu or the Editor menu, choose Flats (1).
2. Type the number of the flat you want to add or edit (000–255), then **press ↵**.
The Flat page is displayed.

7.3.2 Add a Key — Residential

1. In the Flat page, choose Add (1).
2. Use (4) and (6) to select a colour — red, orange, yellow, green, blue, grey, white, black — then **press ↵**.
Colours which are already in use for this flat are not available.
3. Present the key.
The Key page is displayed — see **Configure a Key**.

7.3.3 Edit a Key by Colour — Residential

This command is only available if you have added keys to the flat.

1. In the Flat page, choose Edit (2).
2. Use (4) and (6) to select the colour of the key to edit, then **press ↵**.
The Key page is displayed — see **Configure a Key**.

7.3.4 Delete a Key by Colour — Residential

This command is only available if you have added keys to the flat.

1. In the Flat page, choose Del (3).
2. Use (4) and (6) to select the colour of the key to delete, then **press ↵**.
The key is deleted and the Flat page is displayed again.

7.3.5 Delete All Keys — Residential

This command is only available if you have added keys to the flat.

1. In the Flat page, choose Del All (4), then **press ↵**.
All keys are deleted and the Flat page is displayed again.

7.3.6 Edit a Key Quickly — Residential

To edit a key quickly:

1. In the Admin menu or the Editor menu, choose Flats (1).
2. Present an existing key.
The Key page is displayed — see **Configure a Key**.

7.4 Commercial

7.4.1 Add a key quickly

1. In the Admin menu or the Editor menu, choose Keys (1).
2. Present the key.
The next available key number is displayed.
3. **Press ↵** to add the key with this number.
The Key page is displayed — see **Configure a Key**.

7.4.2 Add a key by number

1. In the Admin menu or the Editor menu, choose Keys (1).
2. Type the number of the key you want to add (0000–2047) and **press ↵**.
3. Present the key.
The Key page is displayed — see **Configure a Key**.

7.4.3 View details of a key

1. In the Admin menu or the Editor menu, choose Keys (1).
2. Present the key you want to edit or type the number of the key and **press ↵**.
The Key page is displayed — see **Configure a Key**.

7.5 Configure a Key

The Key page shows the details of the currently selected key.

1. In the Key page, **press ↵**.
2. **DR:** Press (1) to toggle access to door 1, (2) to toggle access to door 2, then **press ↵**.
3. **TP:** Enter 0 to specify no time profile or choose from 1–8 to select the time profile for this key, then **press ↵**.
4. **EX:** Press (4) to disable or (6) to enable extra door time for this key, then **press ↵**.
5. **1K:** Press (4) to disable or (6) to enable first key status for this key, then **press ↵**.
The Key page is displayed again.

7.5.1 Delete the key

1. In the Key page, press (3).

7.6 View a PIN

This procedure works with all readable keys, not just those which have been added to the system.

1. In the Admin menu or the Editor menu, choose Pin (2).
2. Present the key and the PIN associated with the key is displayed.
3. To view the PIN associated with another key, repeat Step 2.
4. When finished, **use ↑** to exit this command.

7.7 View Key Log

1. In the Admin menu or the Editor menu, choose Key log (3).
2. Press (1) to (5) to see the first to fifth most recent valid access event.

Each event shows door number, flat number and key colour (residential) or door number and key number (commercial).

3. To view another access event, repeat Step 2.
4. Press **↑** to exit this command.

7.8 Override Door Control

When you override door control, that door is permanently unlocked.

1. In the Admin menu, choose Admin › Doors › Manual Control **(4) (1) (1)**.
2. Press **(1)** to toggle control override for Door 1 on or off as required; press **(2)** to toggle control override for Door 2 on or off as required.
3. Press **↑** to exit this command.

7.9 Configure a Door

7.9.1 View door details

1. In the Admin menu, choose Admin › Doors › Configure **(4) (1) (2)**.
2. Press **(1)** or **(2)** to select the required door.
The Door page is displayed.

7.9.2 Configure the door

1. In the Door page, **press ↵**.
2. LR: Enter a number from 000–999 to set the lock release time in seconds, then **press ↵**.
3. DO: Enter 000 to disable door monitoring or a number from 001–999 to set the door open time in seconds, then **press ↵**.
4. EX: Enter a number from 000–999 to set extra door time in seconds, then **press ↵**.
5. AP: Enter 00 to disable hard anti-passback, 01 to specify local hard anti-passback, or a number from 02–30 to specify the hard anti-passback timeout in minutes, then **press ↵**
Anti-passback will remain inactive UNTIL TP10 has been configured to your time and date requirements.
6. TP: Enter 00 to specify no time profile or a number from 01–10 to select the time profile for this door, then **press ↵**.
7. RC: Enter a number from 0–2 to select the number of readers associated with this door, then **press ↵**.
8. FE: Press **(4)** to disable or **(6)** to enable free exit for this door, then **press ↵**.
9. SR: Press **(4)** to disable or **(6)** to enable set / reset for this door, then **press ↵**.
The Door page is displayed again.

7.10 Time Profiles

7.10.1 Add or edit a time profile

1. In the Admin menu, choose Admin › Time Prof **(4) (2)**.
2. Type the number of the time profile you want to add or edit (01–10) and **press ↵**.
The Time Profile page is displayed.

7.10.2 Enable or disable a time profile

1. Display the required Time Profile page.
2. Press (4) to disable or (6) to enable this time profile.

7.10.3 Edit a time profile:

1. Display the required Time Profile page.
2. **Press ↵** to start editing the time profile.
The Time Period page is displayed.
3. Use (4) and (6) to select the time period to edit, then **press ↵**.
4. Enter the start time in hour:minute format, using the 24-hour clock, then **press ↵**.
5. Enter the end time in hour:minute format, using the 24-hour clock, then **press ↵**.
6. Use (1)-(7) to select or deselect the days to which this time period applies, then **press ↵**.
The Time Period page is displayed again.

7.11 System Settings

The PAC 212 adjusts for daylight saving time automatically, using European daylight saving rules (2000/84/EC).

7.11.1 Set System Time

1. In the Admin menu, choose Admin › System › Time (4) (3) (1).
2. Enter the current time, in hour:minute format, using the 24-hour clock, then **press ↵**.
The System submenu is displayed again.

7.11.2 Set the system date

1. In the Admin menu, choose Admin › System › Date (4) (3) (2).
The Current Date page is displayed.
2. **Press ↵** to start editing the date.
3. Set Year: Enter the last two digits of the current year, then **press ↵**.
4. Set Month: Enter the current month in two digit format, then **press ↵**.
5. Set Day: Enter the current day in two digit format, then **press ↵**.
The System submenu is displayed again.

7.11.3 Set the system language

1. In the Admin menu, choose Admin › System › Language (4) (3) (3).
2. Use (4) and (6) to select the required language, then **press ↵**.
The System submenu is displayed again.

7.11.4 View the firmware and database versions

1. In the Admin menu, choose Admin › System › Versions (4) (3) (4).
The database (DB) and firmware (FW) versions are displayed.
2. When finished, **use ↑** to exit this command.

7.12 USB

7.12.1 Load settings, flats and / or keys from USB:

1. Insert the USB drive into the USB port of the PAC 212.
2. In the Admin menu, choose Admin › USB › Load DB (4) (4) (1).
The settings, flats and / or keys are loaded.

7.12.2 Save settings, flats and / or keys to USB:

1. Insert a USB drive into the USB port of the PAC 212.
2. In the Admin menu, choose Admin › USB › Save DB (4) (4) (2).
The settings, flats and / or keys are saved.

7.12.3 Save events, settings, flats and / or keys to USB:

1. Insert a USB drive into the USB port of the PAC 212.
2. In the Admin menu, choose Admin › USB › Save Events (4) (4) (3).
The events, settings, flats and / or keys are saved.

7.13 Manage Editor Keys

7.13.1 Add an editor key quickly

1. In the Admin menu, choose Admin › Editors (4) (5).
2. Present the editor key.
The next available editor key number is displayed.
3. **Press ↵** to add the key with this number.
The Editor Key page is displayed **Configure an Editor Key**

7.13.2 Add an editor key by number

1. In the Admin menu, choose Admin › Editors (4) (5).
2. Type the number of the editor key you want to add (01–20) and **press ↵**.
3. Present the editor key.
The Editor Key page is displayed **Configure an Editor Key**

7.13.3 View details of an editor key

1. In the Admin menu, choose Admin › Editors (4) (5).
2. Present the key you want to edit or type the number of the key and **press ↵**.
The Editor Key page is displayed **Configure an Editor Key**

7.14 Configure an Editor Key

The Editor Key page shows the details of the currently selected editor key.

1. In the Editor Key page, **press** ↵ .
2. **DR:** Press (1) to toggle access to door 1, (2) to toggle access to door 2, then **press** ↵ .
3. **TP:** Enter 0 to specify no time profile or choose from 1–8 to select the time profile for this key, then **press** ↵ .
4. **EX:** Press (4) to disable or (6) to enable extra door time for this key, then **press** ↵ .
5. **1K:** Press (4) to disable or (6) to enable first key status for this key, then **press** ↵ .

The Editor Key page is displayed again.

7.14.1 To delete the editor key:

1. In the Editor Key page, press (3).

7.15 Apply Changes

7.15.1 Log out of the menu

1. In the Admin menu or the Editor menu, **press** ↑ .
The Logout page is displayed.
2. **Press** ↵ to leave the menu or ↑ to return to the menu.
3. If necessary, wait while the settings are applied.
The PAC 212 returns to its default operation.
After 3 minutes of inactivity you are logged out of the menu automatically.

7.16 Change the Administrator Token

7.16.1 Change the administrator token

1. Press and hold (0) for 5 seconds, then **press** ↵ .
2. Enter the Admin PIN for this PAC 212, then **press** ↵ .
3. Present the required administrator token.
The PAC 212 is restarted and the settings are applied.

7.17 Reset to Factory Defaults

1. Press and hold (1) for 5 seconds.
2. Enter the Admin PIN for this PAC 212, then **press** ↵ .
You are prompted to set up the PAC 212 again. See First Setup.



When you reset to factory defaults, all events, settings, flats and / or keys are deleted.

8 Usage

Display

By default, the LCD display shows the status of the two doors.

Alarms

If an alarm occurs, the PAC 212 sounder beeps and a 2-character alarm code is shown on the LCD display.

The top line of the LCD display shows alarms for Door 1 and the bottom line shows alarms for Door 2.

AP	Hard anti-passback violation.
BF	Battery flat.
BL	Battery low.
B?	Battery status unknown.
CT	Case tamper, i.e. the case of the PAC 212 has been opened.
DF	Door forced.
DO	Door open.
DU	Duress alarm.
RH	RTE held.
Rx	Reader tamper – x identifies the reader.



















- To silence an alarm, present an administrator key or editor key to the PAC 212.
- To clear an alarm, remove the condition that caused the alarm. (Hard anti-passback violations or duress alarms are cleared when you silence the alarm.)

Alarm Shunt

- If door monitoring is disabled, the output relay is activated for the duration of the lock release time when a valid access is detected.
- If door monitoring is enabled, the output relay is activated for the duration of the lock release time when a Door Forced or Door Open alarm is detected.

9 One Touch™ Test Mode

To speed up installation and testing, One-Touch™ testing is provided which allows the controller functionality to be tested at the controller or reader.

Test	Action	Observation			
		Controller		Reader	
Normal Operation		 Green	GREEN flashes at normal rate.		
		 Green-Red-Yellow	All LEDs off.		
One-Touch™ View Mode	Hold down One-Touch™ button for less than 2 seconds. Present keys, press RTE switches and observe LEDs. Automatically exits after 2 minutes.	 Green	GREEN flashes at normal rate.	 Red	Normal operation of the reader.
		 Green-Red-Yellow	GREEN on, valid key presented to reader.		
		 Green-Red-Yellow	GREEN flashes, invalid key presented to reader.		
		 Green-Red-Yellow	RED on, door open.		
		 Green-Red-Yellow	YELLOW on, RTE switch has been pressed.		
One-Touch™ Active Mode	Hold down One-Touch™ button for 2 to 4 seconds.	 Green	GREEN flashes faster than normal.	 Green	Normal operation of the reader LED changes, e.g. if default is red it changes to green.
Reader and Request to Exit Test	Present a key to each reader (the lock will activate).	 Green-Red-Yellow	GREEN flashes once for SIGA, twice for SIGB.	 Red	Reader LED flashes once for SIGA, twice for SIGB.
	Press the Request to Exit switch (the lock will activate).	 Green-Red-Yellow	GREEN flashes three times and YELLOW is on.	 Red	Reader LED flashes three times.
	Open the door contact.	 Green-Red-Yellow	GREEN flashes four times and RED is on.	 Red	Reader LED flashes four times.
Auxiliary and Lock Relays Test	Present a key to a reader, press the Request to Exit switch and open the door contact simultaneously.		The appropriate auxiliary relay is activated.		
	Remove link to OV on tamper or open circuit tamper switch.		Both auxiliary relays are activated.		
	Remove link to OV on emergency override or leave open circuit tamper switch.		The auxiliary relay is activated.		
Tamper and Override Test	Remove the link between TAMP and OV on the Tamper & Override terminal block.		The auxiliary relay is activated but the door relays are unaffected.		
	Remove the link between OVRD and OV on the Tamper & Override terminal block.		Both auxiliary and lock relays are activated, the door opens and the lock operates.		
Leave One-Touch™ Active Test mode	Hold down One-Touch™ button for less than 2 seconds. One-Touch™ Test mode will automatically be timed out after 1 hour, power up or power down.	 Green	System status: GREEN flashes at normal rate again.	 Red	Reader LED returns to normal operation.