

ACT 5e prox

Installation and Operating Instructions



VANDERBILT

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1 Overview

The ACT 5e prox is a simple, easy-to-use access control unit combining digital keypad and proximity technology. The unit supports up to 128 users, each with a unique PIN code and proximity card/fob. Each unit is contained in rugged polycarbonate housing, with stainless steel keys and potted electronics, allowing for indoor and outdoor installation. Keypad backlighting enhances the ACT 5e prox functionality at night or in poor light conditions.

Programming the unit is achieved via the keys, LED, and buzzer. Cards and PIN codes can be programmed into the ACT 5e prox very quickly. Vanderbilt recommends that Users and their associated PIN and Card are recorded in the User List at the end of the manual (see *User List* on page 17). Make copies of this sheet and enter each Users details on it. This will allow users to be deleted later on, even if a card is lost or a user forgets their PIN code.

A valid card or PIN will allow access. For maximum security, the unit may be programmed to require all users to enter a PIN code after presenting a card.

1.1 Product specification

Number of Users	128 (128 PINs and 128 Cards)
Supply Voltage	12–24V AC or DC (linear PSU)
Current Consumption	60mA (nominal), 100mA (maximum)
Operating Temperature	-40 to +50°C
Door Open Time	0–255s
Relay Contact Rating	5A / 50V AC
Keypad Size	Flush Mount: 128 x 94 x 18.5mm Surface Mount: 130 x 94 x 25mm
Keypad Weight	220g
Water Resistance	High IP67
Construction	Rugged polycarbonate housing with stainless steel keys and potted electronics.

1.1.1 Relay load

When used with inductive loads (Maglock/Strike locks) the following ratings apply.

Main relay	1.5A @ 30VDC / 1.5A @ 50VAC
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The ACT 5e prox reader must be powered from a fused AC/DC PSU (12–24V, 1A maximum). If the reader is used in a manner not specified in this document, the protection provided by the reader may be impaired.

2 Installation Notes

- Remember to Factory Default the ACT 5e prox before programming.
 - Remember to place the supplied varistor across the terminals of the door strike coil to protect the relay contacts.
 - Do not mount the ACT 5e prox unit near RF sources (e.g. mobile phones, radio transmitters, etc) or metal surfaces.
 - Never use the on-board relay to switch AC mains voltage. An external relay, electrically isolated from the ACT 5e prox, should be used for this purpose.
 - Remember to change the programming code.
 - When ordering new cards or fobs specify ACTRFID. (Note: ACT 5e prox will NOT work with HID cards or fobs.)
-



As with any access control system, always ensure there is an alternate means of escape in the event of the unit failing to operate due to power loss or in the event of fire.

3 30 Second Programming Guide

These instructions apply for a typical standalone system.

1. **Enter Programming Mode**

On the digital keypad press **X**. Input the programming code (default is 9999). The LED flashes amber.

2. **Change User 1 Code**

On the digital keypad press **0**. Input **001** (for User 1). Input the new User 1 code (4 digits).

3. **Add User 1 Card**

On the digital keypad press **5**. Input **001** (for User 1). Present User 1's card twice.

4. **Change Programming Code**

On the digital keypad press **0**. Input **✓**. Input the new programming code (4 digits).

5. **Exit Programming Mode**

On the digital keypad press **X**. The LED turns red and programming mode is exited.

6. **Record User Code and Card**

Enter the details of the Users and their associated codes and card numbers on the User List at the back of this manual.

The ACT 5e prox is now ready for normal use.



The ACT 5e prox may be returned to its factory default condition at any time by entering the programming mode and pressing **✓** three times.

4 Programming Summary

Code	Function	Default
0	Change PIN code	1234 – User 1, 9999 - Programming Code
1	Relay combinations	Off (Timed Relay)
2	Set Door Relay Time	5 seconds
5	Add User Card	
6	Delete User's Card	
7	Delete Card Number	
30	Card or PIN	On
31	Card and PIN	Off
32	Card and any PIN	Off
40	Permanent Backlight	On
41	Auto Backlighting	Off
80	Check PIN User	
81	Check Card User	

5 ACT 5e prox Digital Keypad Programming

To enter programming mode: on the digital keypad press **X** and input the programming code (initially 9999). The LED will flash amber while in programming mode. To exit programming mode either press **X** or do not activate any key for 30 seconds.

- If the LED flashes green during programming, then a card presentation is expected.
- If the LED flashes red, then a keypress is expected.
- While the ACT 5e prox is busy performing a task (e.g. defaulting memory, adding cards) the green LED will turn on and the buzzer will sound an elongated tone.

5.1 Change user PIN codes

Enter programming mode, then press:

Step	Keypad Entry	Operation	Example
1	0	Change PIN codes	0 Change PIN codes
2	000 – 127	Enter 3 digit User Number 000–127	007 User 7
3	0000 – 9999	4 digit code. 0000 deletes user.	7529 PIN code



Remember to update the User List document at the back of this manual after adding a PIN or Card. (See *User List* on page 17.)

5.2 Add cards

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	5	Add Card
2	000 – 127	First user to be assigned card
3	Present Card	First Card in Batch (lowest number card) assigned to first user
4	Present Card	Last Card in Batch (highest number card) assigned to last user



Cards may only be assigned to users that do NOT have a card already assigned. When adding cards to the ACT 5e prox, check which users already have cards by using option 81 (see *Check if user has no card assigned* on page 11).

Example 1: Assign card 0000200036 to user 21		Example 2: Assign card 0000200036 to user 21 using the keypad	
Keypad Entry	Operation	Keypad Entry	Operation
X9999	Enter programming	X9999	Enter programming
5	Add Card	5	Add Card
021	User 21	021	User 21
Present card	Card number 0000200036	0000200036	Enter 10 digit card number
Present card	Card number 0000200036	0000200036	Enter 10 digit card number
X	Exit programming	X	Exit programming

5.3 Change programming code

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	0	Change programming code. (Default 9999)
2	✓	
3	0000–9999	New 4 digit programming code.

5.4 Set door relay time

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	2	Set door relay time. (Default 5 seconds, maximum 255 seconds)
2	0 / 1	0 = Relay 1 1 = Relay 2 Buzzer sounds indicating timing. Wait required period
3	✓	End setting door relay timer

5.5 Set relay combinations

Enter programming mode, then press:

Step	Keypad Entry	Operation	Example: Set user 12 to toggle relay when access granted	
1	1	Set Toggle Mode	1	Set Toggle Mode
2	000 – 127	Enter 3 digit User Number 000–127	012	User 12
3	0 – 3	0 = Relay Toggle 1 = Relay 1 Timed 2 = Relay 2 Timed 3 = Relay 1 and 2 Timed	0	Relay Toggle

5.6 Delete user's card

Enter programming mode, then press:

Step	Keypad Entry	Operation	Example: Delete User 10's Card	
1	6	Delete User's Card	6	Delete User's Card
2	000 – 127	First user to delete	010	User 10
3	000 – 127	Last user to delete	010	User 10

5.7 Delete card number

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	7	Delete card number
2	10 digit card number	10-digit Card number with leading zeroes. E.g. for Card 54321, enter 0000054321.

5.8 Check if user has no PIN assigned

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	80	Check if user has no PIN already assigned
2	000 – 127	User 0 – 127
		Keypad will flash the green LED and sound high-pitched tone if the user has <u>NO</u> PIN code assigned. The keypad will flash the red LED and sound low-pitched tone if the user has a PIN code.

5.9 Check if user has no card assigned

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	81	Check if user has no card already assigned
2	000 – 127	User 0 – 127
Keypad will flash the green LED and sound high-pitched tone if the user has <u>NO</u> card assigned. The keypad will flash the red LED and sound low-pitched tone if the user has a card.		

5.10 Program ACT 5e prox options

Enter programming mode, then press:

Step	Keypad Entry	Operation
1	30, 31, 32, 40 or 41	2 digit option number
2	0 or 1	0=Off, 1= On

Options are as follows:

Option	Function	Default	Operation
30	Card or PIN	On	When set, a valid Card or valid PIN will open the door.
31	Card and PIN	Off	When set, only users with both a Card and PIN are admitted. Cards are assigned to a particular user using the Adding Cards function (function 5) and PINs are assigned using the Changing PIN Codes function (function 0).
32	Card and any PIN	Off	In this mode, a valid card and any valid PIN code will open the door. This mode allows all users to have a common PIN code to use with their cards.
40	Permanent Backlight	On	When set, the keypad illumination is always on. This option will override option 41 (Auto Backlighting).
41	Auto Backlighting	Off	When set, the keypad illumination is normally off, but will switch on in response to any key being pressed, or when a card is presented or while in programming mode. This option is overridden by option 40 (Permanent Backlight). To prevent any illumination, turn off options 40 and 41.

5.11 Restore factory defaults

Enter the programming code followed by **✓✓✓**. This restores the ACT 5e prox to its default settings.

If the programming code has been forgotten, set it to 9999 as follows:

1. Remove the power from the unit.
2. Remove link LK1 at the back of the unit.
3. Apply power to unit.
4. Replace link LK1.
5. Programming code is now set to 9999.



The keypad will not operate correctly without LK1 in place.

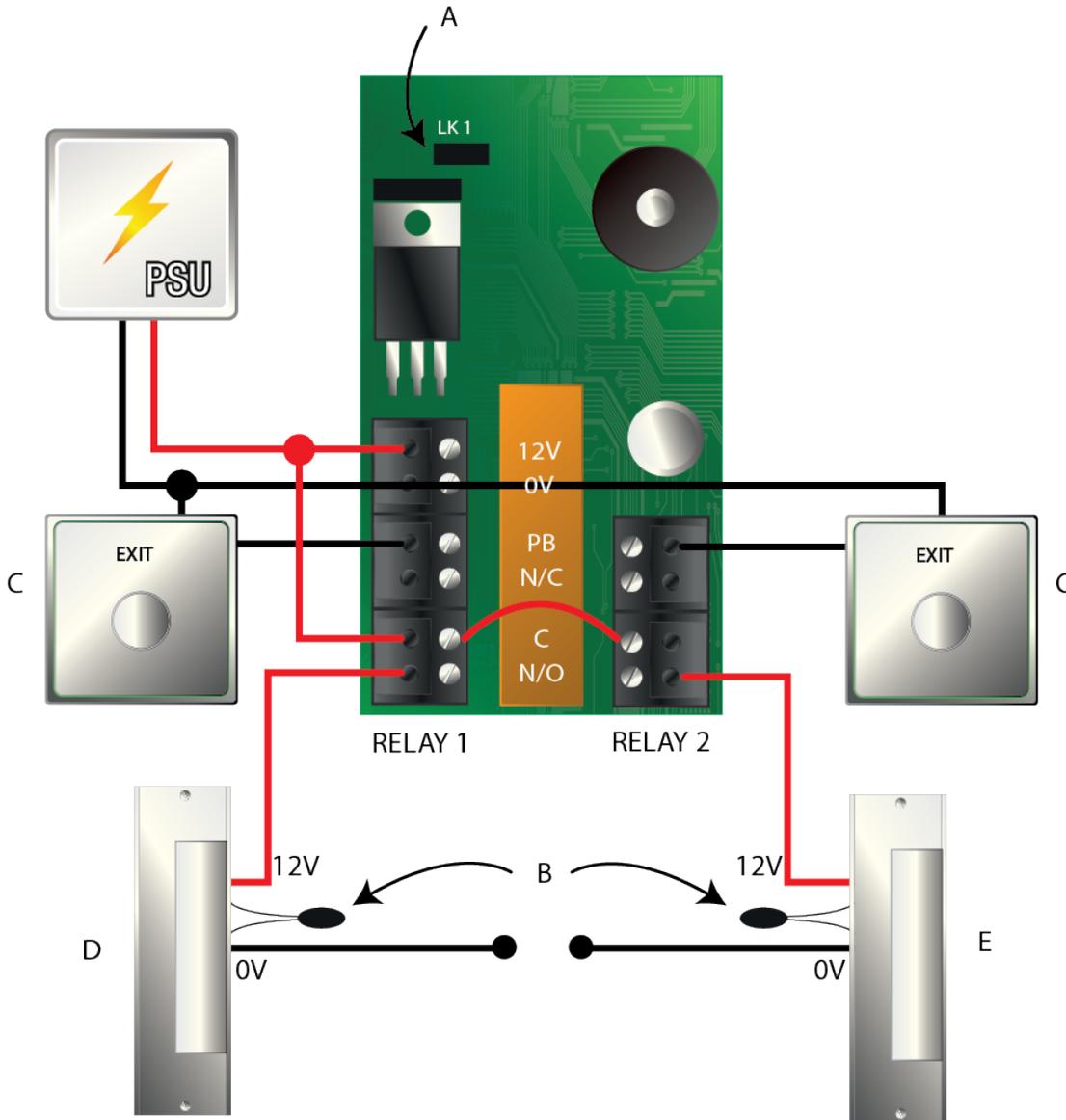
Defaulting memory takes 3-4 seconds. During this time, the buzzer will sound an elongated tone.

6 Wiring and Mounting Diagrams

6.1 ACT 5e prox wiring diagram for strike lock

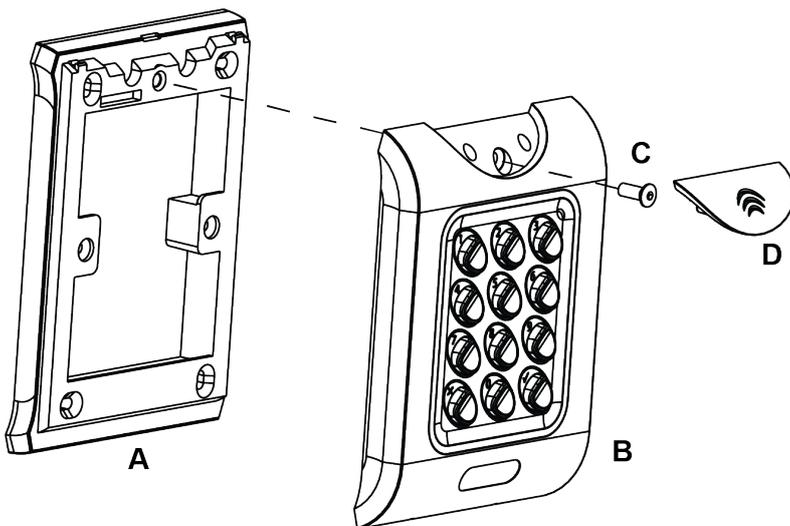
Notes:

- This illustration shows wiring for normally de-energised locks. If normally energised locks are required use the N/C relay contacts.
- The ACT 5e prox may be powered from 12 or 24V AC or DC.



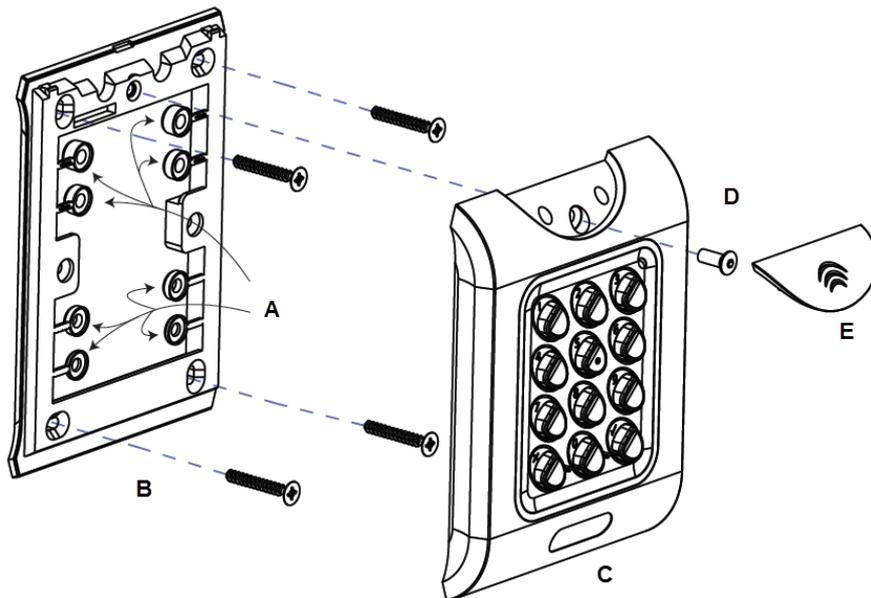
A	Power up without link if programming code has been lost.
B	IMPORTANT: Always place varistor across lock terminals.
C	Door Release button
D	Strike Lock 1
E	Strike Lock 2

6.3 Surface mount



- | | |
|----------|--------------------------------------------------------------------------------------|
| A | Mount the surface mount collar on the wall using the fixing kit supplied in the box. |
| B | Place the reader/keypad onto the surface mount collar and clip down into place. |
| C | Use the security screw supplied to attached the unit to the surface mount collar. |
| D | Place the cap onto the unit and push firmly in place. |

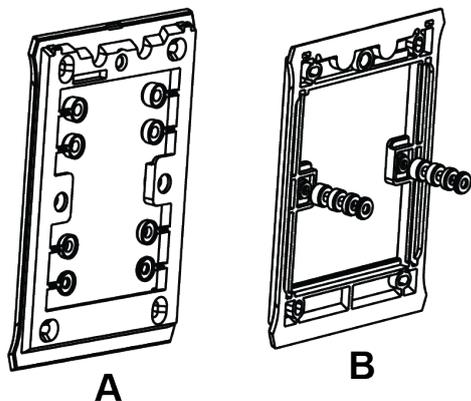
6.4 Flush mount



- | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | Remove spacers before mounting. |
| B | Prepare the mounting surface to receive sub-surface terminals.
Mount the flush mount collar on the wall using the fixing kit supplied in the box. |
| C | Place the reader/keypad onto the surface mount collar and clip down into place. |

- D** Use the security screw supplied to attached the unit to the flush mount collar.
- E** Place the cap onto the unit and push firmly in place.

6.5 Flush mount to UK pattress box

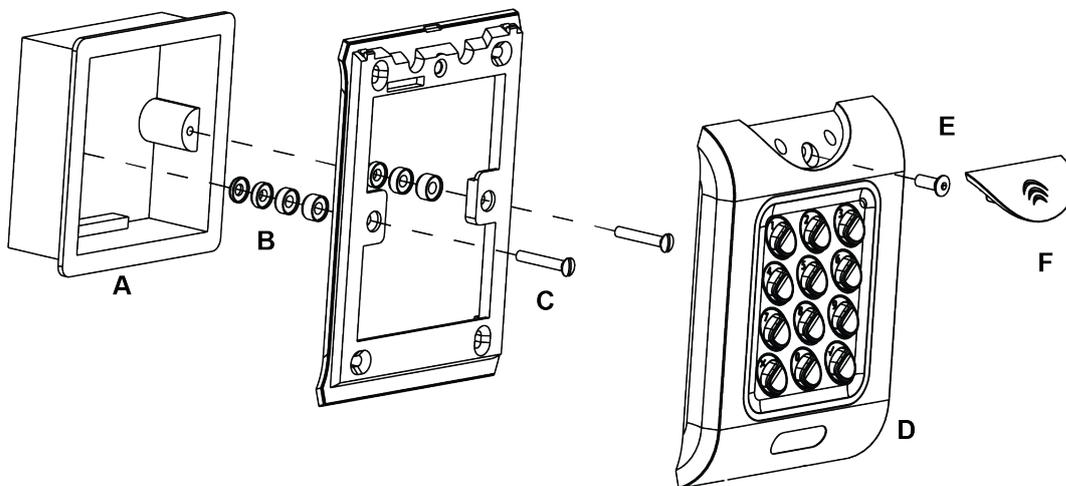


Spacers break away from main component when required by installer for use.

Determine the distance between the pattress box and the mounting plate, using the spacers that are labelled 1mm to 4mm. A spacer of the correct length is assembled by stacking the spacers together.

View **A** shows mounting plate before spacers are broken away by installer.

View **B** shows spacer stacking.



- A** Standard pattress box.
- B** Attach the mounting plate to the pattress using the screws supplied (**C**).
- C** Ensure the correct spacers (**B**) have been used to bridge the gap between the mounting plate and the fixing wings of the pattress box to avoid the mounting plate being distorted.
- D** Place the reader/keypad onto the surface mount collar and clip down into place.
- E** Use the security screw supplied to attached the unit to the flush mount collar.
- F** Place the cap onto the unit and push firmly in place.

7 User List

User	User Name	Card Number	PIN	Toggle
000				
001				
002				
003				
004				
005				
006				
007				
008				
009				
010				
011				
012				
013				
014				
015				
016				
017				
018				
019				
020				
021				
022				
023				
024				
025				
026				
027				
028				

User	User Name	Card Number	PIN	Toggle
029				
030				
031				
032				
033				
034				
035				
036				
037				
038				
039				
040				
041				
042				
043				
044				
045				
046				
047				
048				
049				

Example:

User	User Name	Card Number	PIN	Toggle
012	John Smith	0000200036	7529	No

Download a PDF to record the full user list: http://van.fyi?Link=5eproxy_UL





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