Access Control Proximity Reader

PN20

User Manual
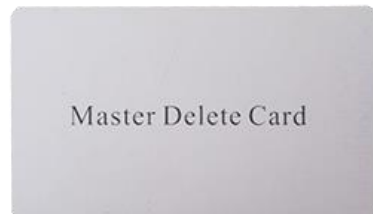
Please read the manual carefully before installing this unit

1. Packing list

Name	Quantity	Remarks
Proximity reader	1	
Infrared remote	1	
Admin add card	1	
Admin delete card	1	
User manual	1	
Self-tapping screws	2	Φ3.5mm×27mm, used for fixing
Wall plugs	2	
Screw driver	1	Star
Diode	1	IN4004 (for relay circuit protection)

Please ensure that all the above contents are correct. If any are missing, please notify us immediately

2. Description

The PN20 is a compact, waterproof standalone programmable access control proximity reader for up to 2000 users. It uses Atmel microprocessor ensuring maximum performance in any environment, and the low power circuit prolongs its service life. Users can be added and deleted via admin cards making it very simple to operate. The infrared remote control allows settings to be quickly changed, including altering the relay time.
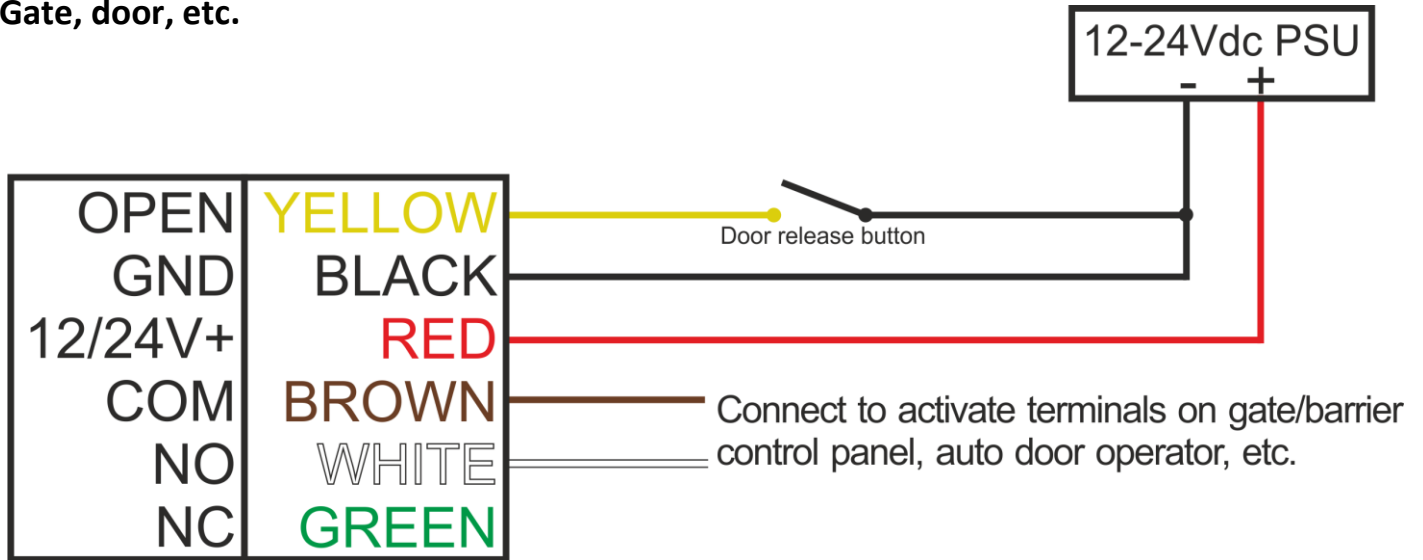
3. Features

- Zinc alloy, anti-vandal powder coated housing
- Waterproof, conforms to IP66
- Supplied with a 50cm cable
- High-capacity memory, 2000 users
- Infrared remote control and manager cards for programming
- Red, yellow and green LEDs display the working status
- Pulse mode or toggle mode
- Adjustable door unlocking time
- Built in light dependent resistor (LDR) for anti-tamper

4. Specification

Operating voltage	9-24Vdc
User capacity	2000
Static consumption	<40mA
Operating consumption	<100mA
Card reading distance	3-5cm
Frequency	125KHz
Operating temperature	-40 to 60°C
Operating humidity	0% to 98%
Lock output load	2A
Waterproof	IP66
Dimensions	103 x 48 x 19 mm

5. Installation

- Remove back plate from the reader using security driver supplied and use it to mark the two fixing holes and one cable hole.
- Drill the cable and fixing holes.
- Secure back plate to the wall using fixing screws and plugs provided.
- Thread cable through the hole and connect wires needed, wrap unused wires with insulating tape to prevent short circuit.
- Fit the reader into the back plate and replace retaining screw.

6. Wiring

Colour	Function	Description
Red	12/24V +	12/24V + DC regulated power input
Black	GND	12/24V – DC regulated power input
White	NO	Relay normally open
Brown	COM	Relay common
Green	NC	Relay normally closed
Yellow	OPEN	Exit button

Lock

Install IN4004 diode across the lock +V and -V

Gate, door, etc.

7. Factory reset

Turn off the power to the unit. Press and hold the exit button whilst powering the unit up. There will be 2 beeps and the LED will turn yellow, release the exit button. Then read any two 125KHz cards, the first card will be the master add card, the second card will be the master delete card, the LED will then turn red and the reset is complete. The master code has now been reset to 123456, and factory default settings are restored.

Note: User data will not be deleted when performing a factory reset.

8. Sound & light indication

Operation	LED indicator	Buzzer
Standby	Red	
Enter programming mode	Red flashing slowly	One beep
In a programming menu	Yellow	One beep
Operation error		Three beeps
Exit programming mode	Red	One beep
Door unlocked	Green	One beep
Alarm	Red flashing quickly	Alarming

9. Programming

It is highly advised to keep a record of the User ID number and card number to allow for individual deletion of cards in the future, see the last page.

Add and delete users by master cards

Add users

Read master add card Read 1ˢᵗ user card Read 2ⁿᵈ user card … Read master add card again

Cards are automatically assigned to the next available user ID

Delete users

Read master delete card Read 1ˢᵗ user card Read 2ⁿᵈ user card … Read master delete card again

Programming with the infrared programmer

Please note the infrared receiver is near the LED so please point the programmer there.

Set a new master code

1. Enter programming mode	* Master code # 123456 is default master code
2. Change master code	0 New Master code # New Master code # The admin code is any 6 digits
3. Exit programming mode	*

Add user cards

1. Enter programming mode	* Master code # 123456 is default master code
2. Add a card user (Method 1) The reader will automatically assign the card to the next available user ID number	1 Read card # Cards can be added continuously without exiting programming mode
2. Add a card user (Method 2) In this method a user ID number is allocated to a card. User ID number is any number between 1 & 2000. Only one user ID number per card.	1 User ID number # Read card # Cards can be added continuously without exiting programming mode
2. Add a card user (Method 3) In this method the card is added by the 8 or 10 digit card number printed on the card. User ID number is automatically assigned.	1 Card number # Cards can be added continuously without exiting programming mode
2. Add block of sequential card numbers Allows manager to add up to 2000 cards **with sequential numbers** to the reader in a single step. Can take up to 3 minutes to program.	1 User ID number # Card quantity # First Card number #
3. Exit programming mode	*

Delete user cards

1. Enter programming mode	* Master code # 123456 is default master code
2. Delete a card user by card	2 Read card # Cards can be deleted continuously without exiting programming mode
2. Delete a card user by user ID number This option can be used when someone has lost their card	2 User ID number # Cards can be deleted continuously without exiting programming mode
2. Delete a card user by card number This option can be used when someone has lost their card	2 Card number # Card number is 8/10 digits printed on the card. Cards can be deleted continuously without exiting programming mode
2. Delete ALL users	2 Master code #
3. Exit programming mode	*

Set relay configuration

1. Enter programming mode	* **Master code** #
	123456 is default master code
2. Pulse mode **OR** 2. Latch mode	3 **1-99** #
	The relay time is 1-99 seconds. (1 equals 50mS). Default is 5 seconds.
	3 **0** #
	Read valid card, relay switches. Read valid card again, relay switches back.
3. Exit programming mode	*

Set strike-out alarm

The strike-out alarm will engage after 10 consecutive failed card attempts. Factory default is OFF.
It can be set to deny access for 10 minutes or activate the reader's internal alarm.

1. Enter programming mode	* **Master code** #
	123456 is default master code
2. Strike-out OFF **OR**	**4 0** #
	No alarm or lockout (default mode)
2. Strike-out ON **OR**	**4 1** #
	Access will be denied for 10 minutes
2. Strike-out ON (Alarm)	**4 2** #
	The device will alarm for the time set below
Set alarm time	**5 0-3** #
	0-3 is the time in minutes. Default is 1 minute. Enter master code # or read valid card to silence
3. Exit programming mode	*

Set audible and visual response

1. Enter programming mode	* **Master code** #
	123456 is default master code
2. Control LED Disable control LED	**6 1 #** Control LED indicator off in **standby mode** (still on when in programming and when a valid card is read)
Enable control LED (default)	**6 2 #** Control LED indicator on in standby mode (default)
2. Buzzer Disable buzzer	**6 3 #** No buzzer when card read (still buzzes when in programming, but not when exiting programming)
Enable buzzer (default)	**6 4 #** Buzzer sounds when card read (default)
3. Exit programming mode	*

10. User operation

To open the door:
Read valid card

To turn off alarm:
Read valid card or **Enter master code#**

11. Issue record

It is highly advised to keep a record (ideally digitally) of the User ID number and card number to allow for individual deletion of cards in the future.

Site		Door location	

Card/fob number	User ID number	User name	Issue date