

Scope

This document explains the initial installation of the NanoQuest unit so that it can be used to control basic access through a door. For further installation and programming instructions, download the full Instruction Manual from <http://www.nortechcontrol.com/support/download-documents/>.

Before Installation

Check that the box contains the following items:

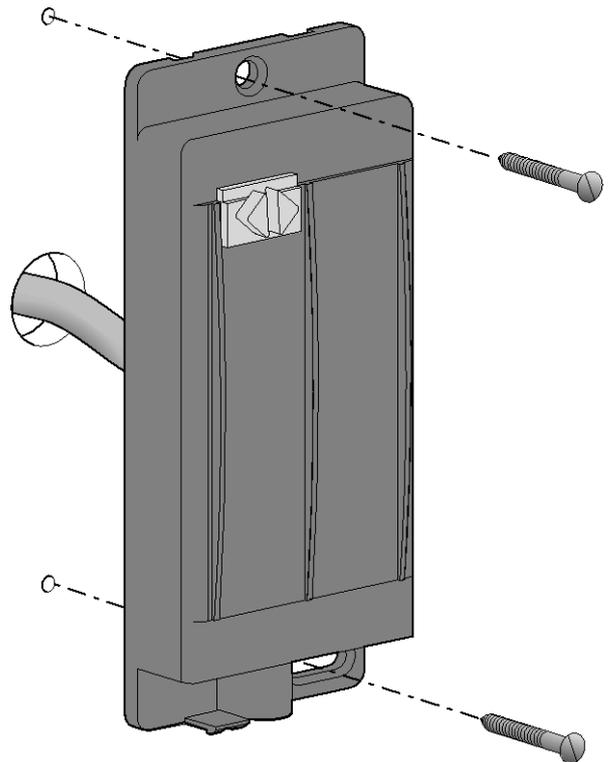
1 x NanoQuest (2-part) unit	2 x mounting screws (No.6 x 1.25")
1 x cover securing screw	2 x Master proximity cards
1 x varistor	1 x Mounting Template

You will also need unassigned proximity cards or card packs purchased separately.

The NanoQuest requires a power supply of between 9 and 16V DC. We recommend that an appropriate 12V DC power supply unit or mains adaptor is made available to supply power to the NanoQuest. The NanoQuest requires less than 70mA at 12V.

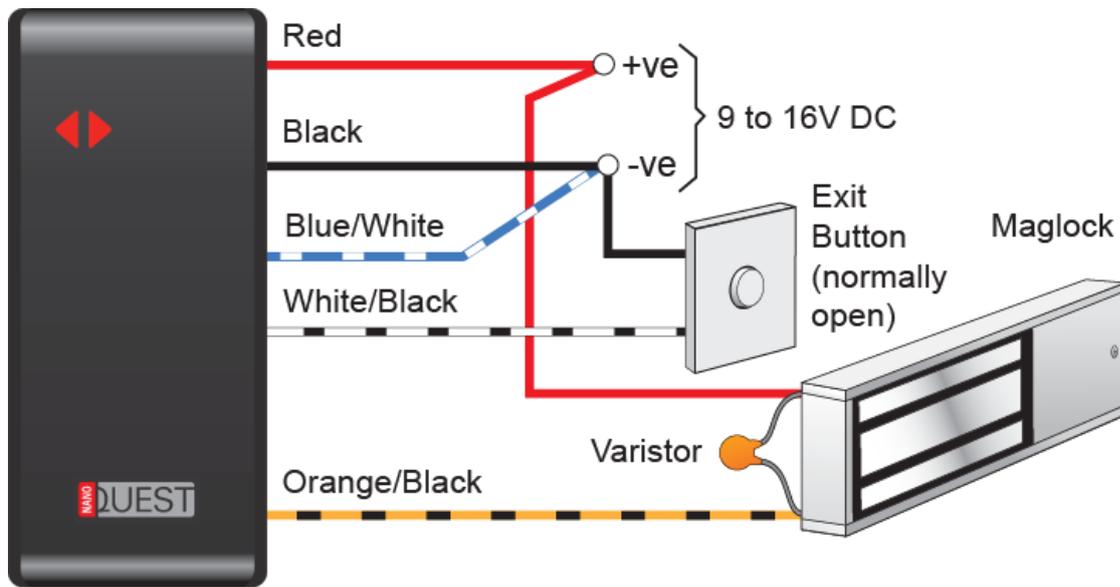
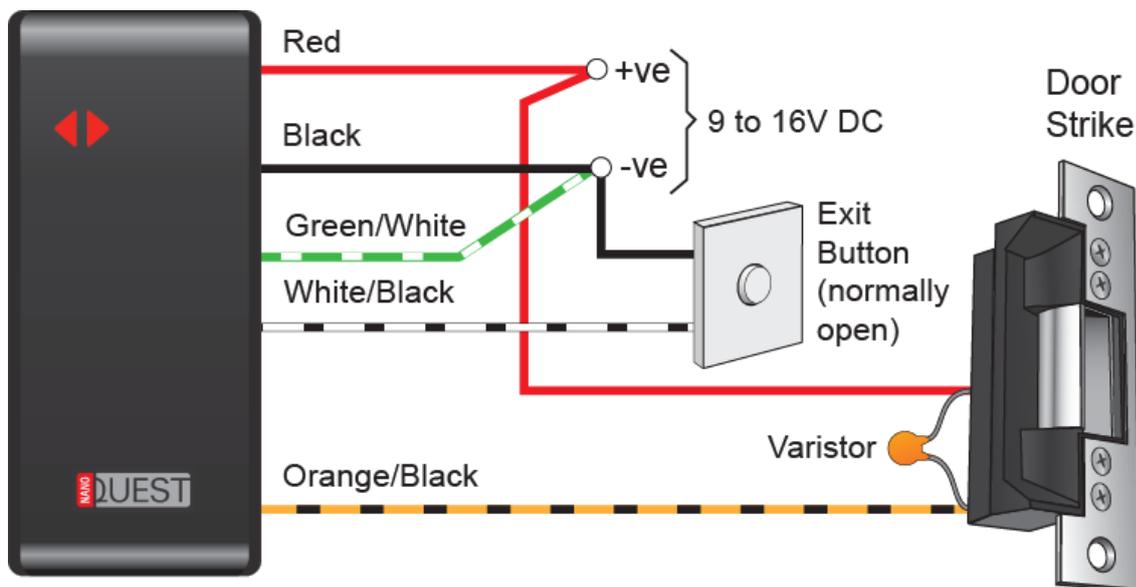
Mounting the NanoQuest

- 1) Identify a suitable location for the NanoQuest. It should be located at a convenient height near to the door that it controls. The unit is waterproof and suitable for exterior use but it must not be used for an exterior door without another means of securing the door. (For example, a dead lock secures the door at night with NanoQuest controlling access by staff during the day).
- 2) Use the supplied template to mark out the positions of the holes for screw fixings and cable access, and drill appropriate sized holes.
- 3) Remove the cover from the NanoQuest by inserting the tip of a terminal screwdriver into the small slot next to the screw hole at the bottom of the NanoQuest, and pressing lightly to release the securing catch while you separate the cover from the body at the base.
- 4) Feed the cable through the wall and terminate it either inside the PSU enclosure or in a suitable tamperproof terminal box.
- 5) Secure the NanoQuest to the wall.
- 6) Fit the cover and secure with the supplied securing screw once the NanoQuest has been fully installed.



Wiring the NanoQuest

Connect the unit as shown on the next page (always fit the varistor as close to the locking device as possible). If a door strike is used and a door handle is left in use on the inside of the door, connection to the free exit button may not be required. See the full NanoQuest Instruction Manual for the connection of additional items such as local alarms and door contacts.

Connecting the NanoQuest Using Normally Closed Contacts

Connecting the NanoQuest Using Normally Open Contacts

Power Up and Confidence Check

Apply power to the unit and check that the LED's glows red.

Present a Master Card once to the face of the unit and check that the buzzer gives two short beeps and the LED's blink green and then continue to flash red. Wait 30 seconds. The buzzer should give two short beeps and the LED's return to a steady Red.

Press the Free Exit Button, if fitted. The NanoQuest will give a short beep, the lock will release for 3 seconds and the LED's change to green during this period. This indicates that the unit is functioning correctly.

Programming the NanoQuest

Adding User Cards Individually

- 1) Present a Master Card, 2 short beeps will sound and the LED will blink green and then start to flash red slowly to show that the unit is in programming mode.
- 2) Present each User Card to the unit in turn. A short beep will sound when the card is detected.
- 3) Once you have presented all required cards, present the Master Card again. The unit gives 2 short beeps and the LED returns to a steady red glow indicating that it is in operating mode.

Adding a Batch of User Cards

- 1) Present a Master Card to the NanoQuest, 2 short beeps will sound and the LED will blink green and then start to flash red slowly to show that the unit is in programming mode.
- 2) Present the Batch Card to the unit. A short beep will sound when all cards have been set (this may take several seconds).
- 3) Present the Master Card again. The unit gives 2 short beeps and the LED returns to a steady red glow indicating that it is in operating mode.

All related user cards are now valid and will now release the lock when presented to the NanoQuest. Keep the Master Cards in a secure place.

Additional Settings

The Master Card can be used to set further functions. Each time you present the Master Card, the unit steps to the next function (see the table below). Once you have adjusted the setting by presenting the appropriate user cards, you can exit programming mode by presenting the Master Card again.

Note: When in programming mode, the LED provides an indication of the mode/option that has been selected by blinking red the number of times that correspond with the selection made. For example, when in mode 5 (configure alarm output), the LED blinks 5 times followed by a pause. The sequence is repeated while the unit is in mode 5.

	Programming Function	Present Master	Programming Options/Actions	Default Value
1	Add user card(s)	Once	Present each card to make it a valid User card	
2	Add Aux. card(s)	Twice	Present each card to make it a valid Auxiliary card	
3	Delete card(s)	3 times	Present each card to delete it	
4	Add 2 nd Master	4 times	Present an unregistered card to make it a Master	
5	Configure alarm Output	5 times	Set to Latch - present a User card once Set to Pulse - present a User card twice	Latch
6	Configure aux. Output	6 times	Set to Latch - present a User card once Set to Pulse - present a User card twice	Latch
7	Use door contact	7 times	Not used - present a User card once Used - present a User card twice	Not used
8	Silent mode	8 times	Off - present a User card once On - present a User card twice	Off
9	Set relay strike time	9 times	Present a User card once per second of strike time. For 0.5 seconds present User card 11 times. To select 'latching' mode present User card 12 times.	3 sec's

Operating the NanoQuest

When a valid User card is presented to the reader in operating mode, the buzzer beeps once and the strike relay operates. The LED glows green while the strike relay is active.

To activate the auxiliary output, an Auxiliary card must be presented to the unit 3 times. The buzzer beeps once for each presentation and give two additional beeps to confirm activation of the auxiliary output. Repeat the process to deactivate the auxiliary output (in default mode).

Wiring Information

Colour	Function	Colour	Function
Red	+ve (9 to 16V DC, 100mA)	Green	Auxiliary out, 500mA open collector (or Wiegand Data 0)
Black	Ground	White	Wiegand Data 1
White/Black	Request to Exit button	Blue	Local alarm output, 500mA open collector.
Orange	Door contact input (open when door is open)	Red/Black	Auxiliary in/arming (see below)
Orange/Black	Relay common	Green/Black	RS232 serial data
Green/White	Normally open contact	Blue/Black	Wiegand mode select (connect to +VE for Wiegand)
Blue/White	Normally closed contact		

Specifications

Number of users:	500
Door Open time:	0.5 to 10 seconds, plus Latch mode (e.g. for secure control of equipment)
Aux out:	Latch or Pulse after 3 shows of selected cards
Aux in:	Open for reading, connect to ground to disable latch
Door Monitoring:	Connect to ground for door closed, open for door open. Allows door forced and door left open alarms. Also re-locks door immediately when door is opened.
Silent Mode:	Card detection is silent (does not affect programming and audible alarm).
Power requirements:	9-16V DC, 70mA (unit only)
Relay rating:	1A @30Vdc
Operating Temp.:	-20C to +55C
IP Rating:	IP65 - suitable for internal and external use
Read Range:	Up to 80mm, depending on Token used
Dimensions:	111 x 49 x 19 (H x W x D)

If you can't find the information you require in this document or in the full Instruction Manual, then please feel free to contact us on:

+44 (0) 1633 48 55 33 or email info@nortechcontrol.com