


Technical Support

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Technical help is available: Monday - Friday from 5am - 5pm PST / 8am - 8pm EST

Other documentation on Net2 can be found on our web site - <http://www.paxton-access.com/>

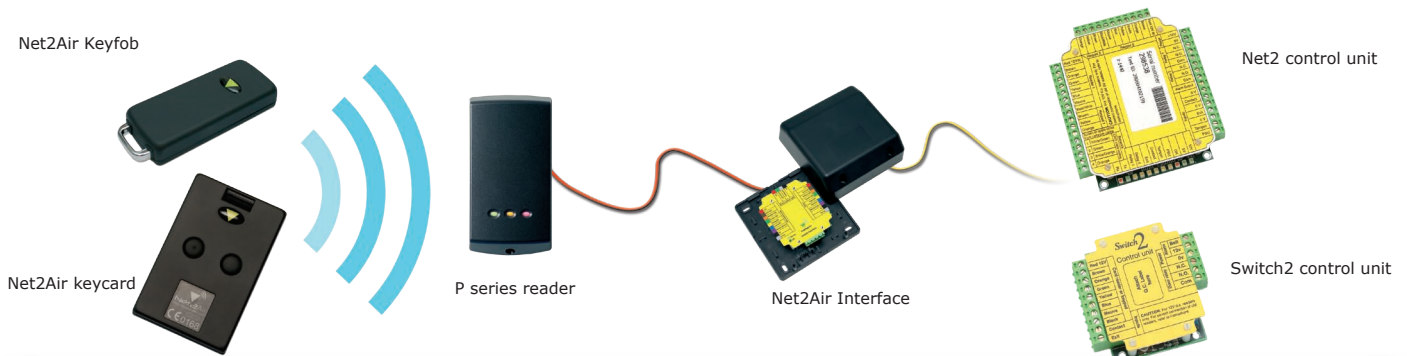
What is Net2Air?

Net2Air increases the effective read range of a standard Paxton P or KP series reader to a maximum of 8 feet.

The system comprises of a Net2Air Hands Free Interface, a compatible reader (see specification table) and Net2Air tokens (keycard or keyfob). The system operates by using the field being transmitted by the reader to wake up the token which then communicates with the interface which contains a long range receiver.

Existing P and KP readers with their Switch 2 or Net2 control units, can be used without modification. The Net2Air Hands Free Interface takes its power from the control unit and therefore does not require a power supply.

Net2Air tokens also include a standard proximity ID chip and can therefore be presented to any Paxton proximity reader whether they are using the Net2Air interface or not.



Before you install

Positioning readers

Readers should not be positioned so that their active fields overlap. (see table on back page for typical read ranges)

For example, the minimum distance between a P200 and a P50 reader should be 12 ft (P200 Net2Air range = 8 ft + P50 Net2Air range = 4 ft)

For maximum read range the Net2Air reader field should not be overlapped by the field from other interference sources at or around 125KHz. These include Loop readers, non Paxton readers, etc.

For optimum keyfob battery life please choose your reader size and location carefully to avoid placing readers within Net2Air range of work stations, rest or smoking areas. Net2Air tokens have features to extend battery life. These include a two second timeout following a valid read and a block on repeated reads at the same door whilst the keyfob remains in range.

Read in, read out

When using in and out readers, users may be picked up by both readers as they move through the door which will effect the reliability of any Roll Call or Antipassback application. Ensure that sufficient spacing is provided between these readers for optimum range and reliability.

Positioning the interface

The interface should be positioned within 15 yards of the reader regardless of cable length. Wireless technology can be susceptible to environmental factors so if problems are experienced it may be necessary to move the interface closer to the reader.

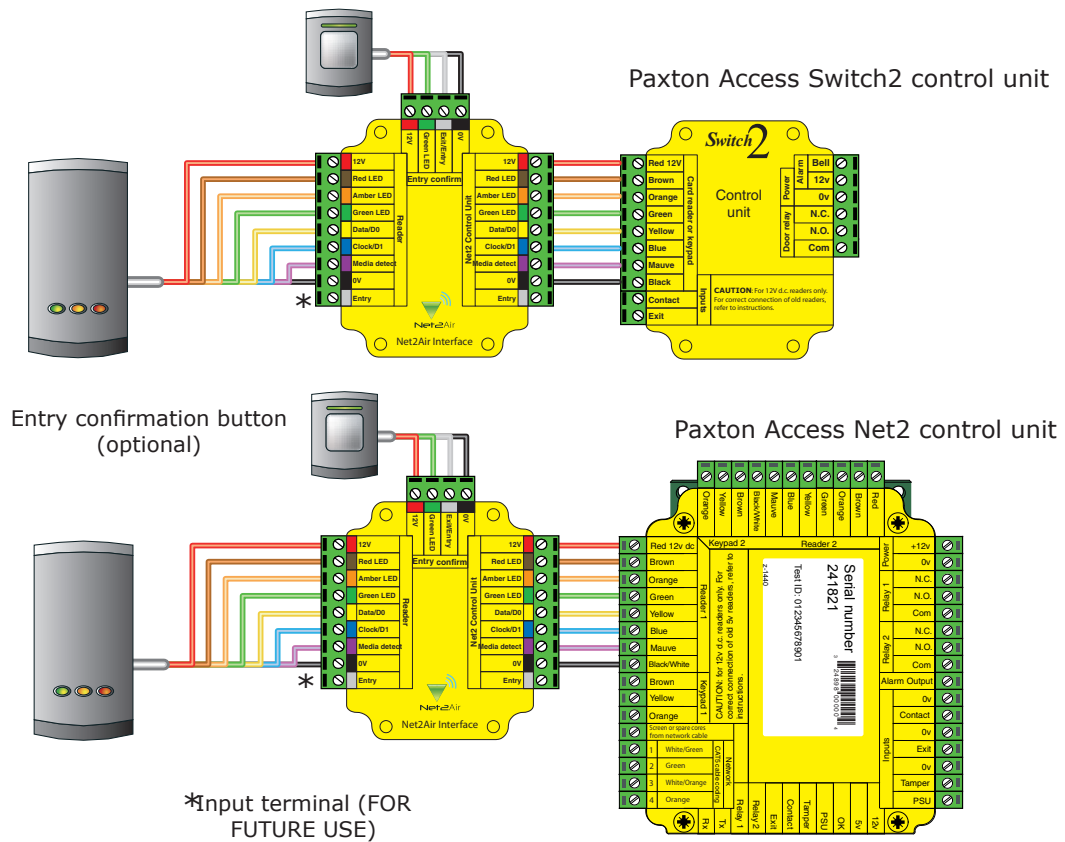
The Net2Air interface should not be housed in a metal enclosure as it contains the main receiver aerial.



Cable extensions

Readers used with Net2Air can be extended using Beldon CR9540 10-core overall screened cable. The maximum cable length between the reader and its Net2 ACU or Switch 2 is 100 yards

Wiring



Configuration

Firmware download

When first powered up new firmware will be downloaded from the interface to the reader.

This is indicated by flashing amber and red LEDs on the reader. Once complete all LEDs will be lit.

This may take up to 10 minutes to complete. Do NOT disconnect power during the firmware update.

If the firmware update is still taking place after 10 minutes then remove and then re-connect the ACU cable. Listen to the reader, the reader should NOT beep. If the reader beeps within approximately 10 seconds of power up it will not take the firmware update. Repeat the process until the reader does NOT 'beep' on power up. Then leave for 10 mins to allow the update to take place

Using an entry confirmation button

Where two doors are close together and there is a possibility that both may pick up the Net2Air token, a push to make button can be used to confirm an entry request for a specific door. Where fitted, the button must be pressed within 5 seconds of a valid Net2Air token being recognised to unlock the door.

To enable the use of an entry confirmation button do the following steps:

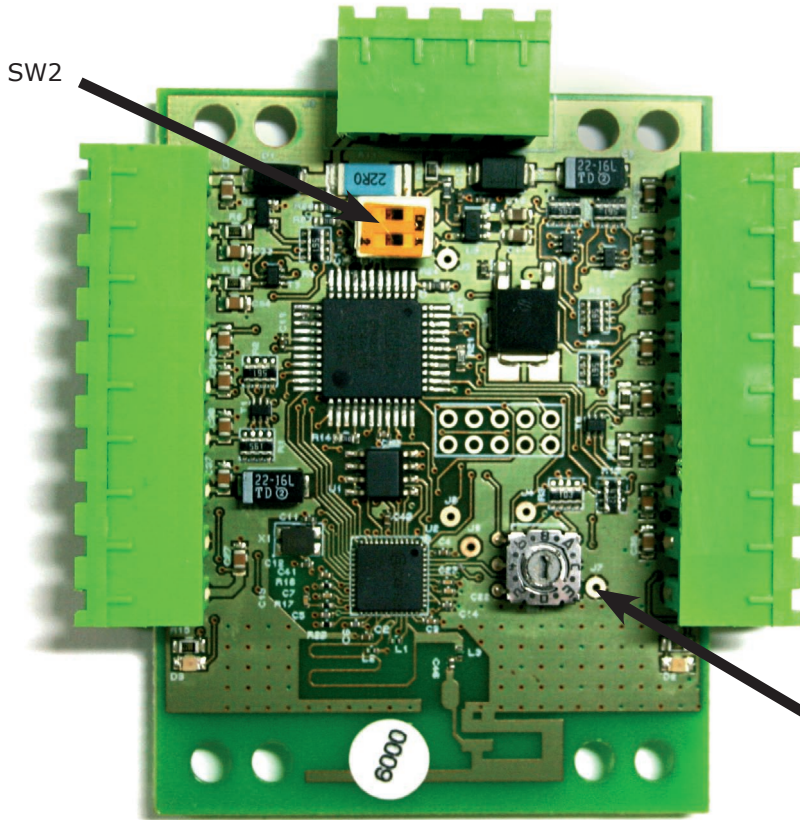
1. Power down the Net2Air interface board
2. Power up the Net2Air interface board
3. Press and hold the entry confirmation button for a minimum of 3 seconds within 60 seconds of power up.

To disable the use of the button repeat the above process.

Changing frequency channel

If you are experiencing problems with the range or reliability this may be due to poor reader positioning, adjacent interfering 125KHz or 2.4 GHz equipment, e.g. an adjacent wireless PC network. Please refer to the 'Before you install' information regarding unit locations. If you are still unable to improve the system performance then you may try an alternative 2.4 GHz channel using Switch 1.

The system has 16 different channels available. The unit is set to channel 4 as this frequency is normally clear of other device transmissions. This can be changed using a small flat blade screwdriver. Take care not to contact the circuit board with the screwdriver blade as this may damage components.



Switch position	GHz	IEEE 802.15.4 channel
0	2.405	11
1	2.41	12
2	2.415	13
3	2.42	14
4	2.425	15
5	2.43	16
6	2.435	17
7	2.44	18
8	2.445	19
9	2.45	20
A	2.455	21
B	2.46	22
C	2.465	23
D	2.47	24
E	2.475	25
F	2.48	26

SW1. Rotate the switch to select an alternate channel.

The switch should initially be set to the default position '4'

All Net2Air tokens automatically configure themselves to use the new channel. No configuration of the token is required.

Keycard configuration

The switch SW2 is used to configure the buttons on the Net2Air Hands Free Keycard.

Please refer to instruction sheet ins-30037 for switch configuration supplied with the keycard.

Specifications

	min	typical	max	unit
Dimensions				
Width		2 3/4"		
Height		2 3/4"		
Depth		1"		
Electrical				
Operating voltage	11	12	14	v DC
Current consumption			80	mA
Carrier frequency		2.4		GHz
Clock & data bit period		600		µs
Additional power supply required		No		
System Specifications				
Readers per interface			1	
Button confirmation input		Yes		
Cable type for extensions		Beldon 9540		
Cable length between ACU and reader			100 max	yds
Distance between interface and reader			15 max	yds
Read range with Net2Air token				
P38			3	ft
P50			4	ft
P75			5	ft
P200			8	ft
P200 metal mount			6	ft
Environment				
Operating temperature	-20 °C (-4 °F)		55 °C (131 °F)	
Waterproof	NO - If used externally, it must be protected in a plastic weatherproof housing			

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.