Intelligent Access Control

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Connection Overview

Please see individual pages for more details

Diagram shows connections for door 2

Doors 1,3 & 4 are connected in the same manner to the top, bottom and right of the boards indicated

These drawings are for the Inwe 4 door controller, the 1 door and 2 door controllers are installed using the same convention

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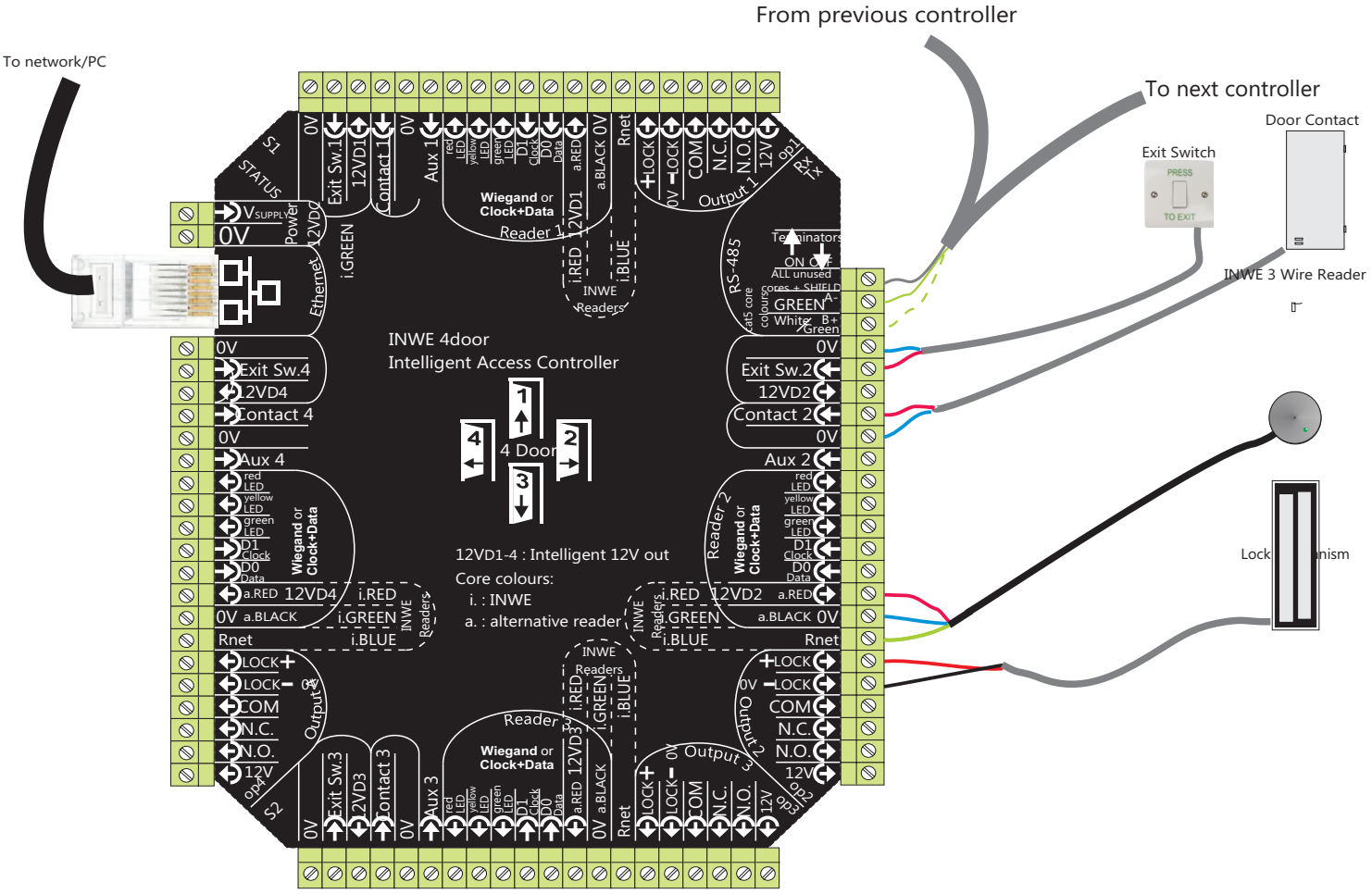


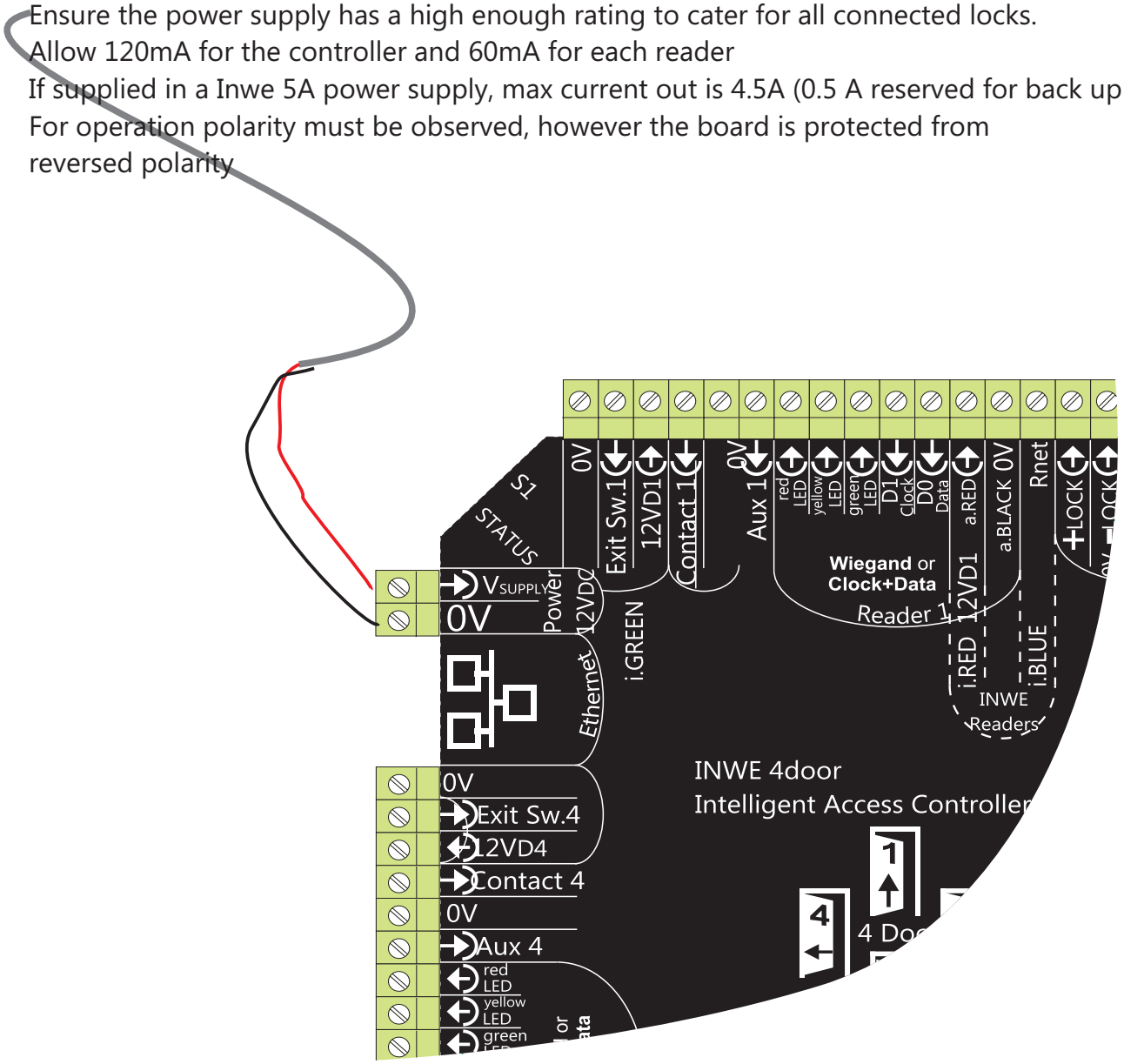
Note - Reader outputs & Lock output
- Protected from over current
- Protected from external high voltages
- Feature dynamic current management

LED indicators

Status - Network Connection
S1 - Indicates which memory sector active
op1- Lock output 1 Active
Rx&Tx - Receive and ttransmint network activity
op2 - Lock output 2 Active
op3 - Lock output 3 Active
S2 - Indicates which memory sector active
op4 - Lock output 4 Active

Power connections

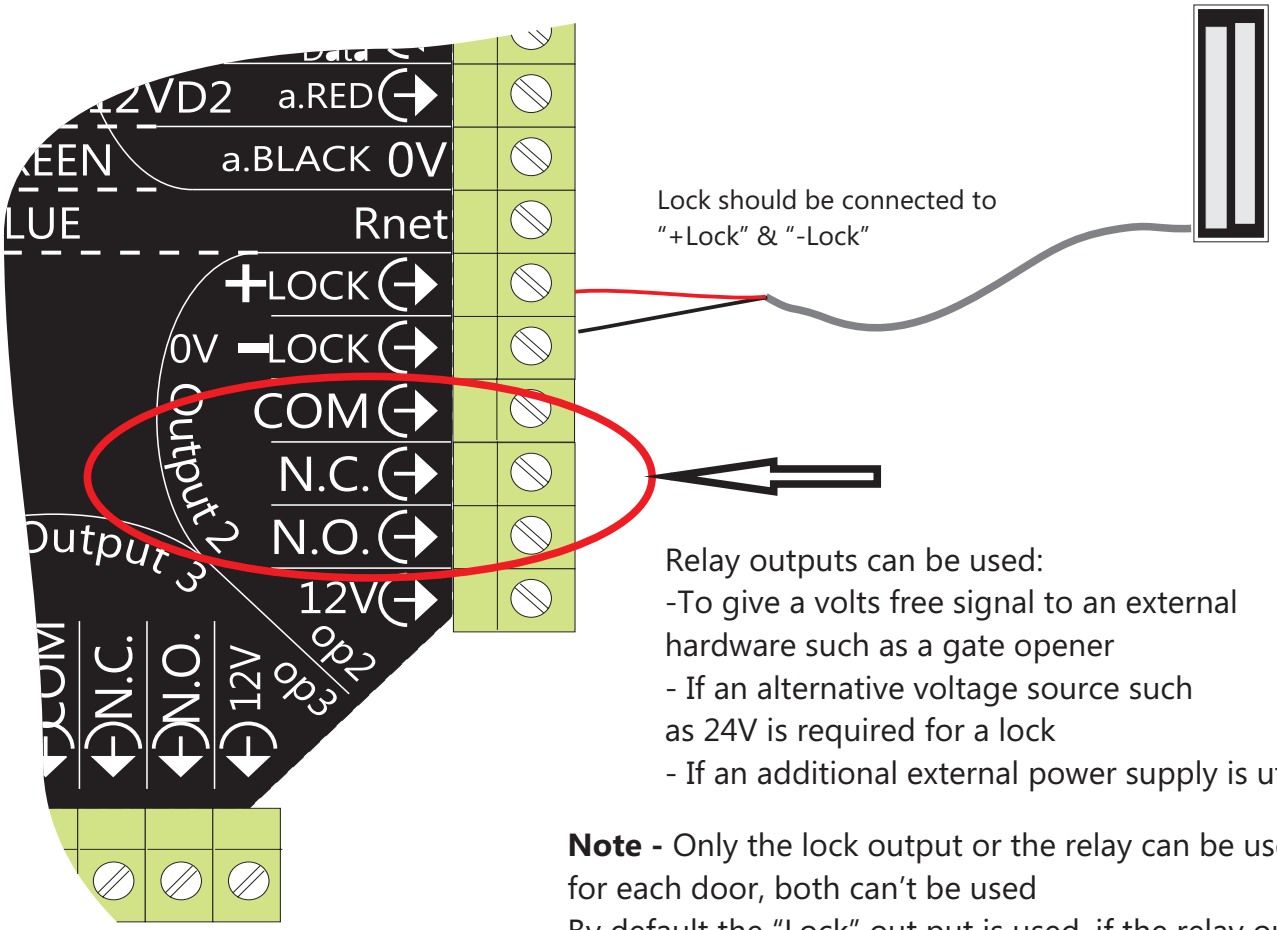
A 12V (13.8V) DC power supply must be utilised
Ensure the power supply has a high enough rating to cater for all connected locks.
Allow 120mA for the controller and 60mA for each reader
If supplied in a Inwe 5A power supply, max current out is 4.5A (0.5 A reserved for back up battery
For operation polarity must be observed, however the board is protected from
reversed polarity



If the output required is higher than the connected power supply, a relay output can be utilised, using a secod, extrenal power supply (see Lock connections)

Lock connections

By default the lock output is fail safe
The lock output is nominally 12V DC



Relay outputs can be used:
-To give a volts free signal to an external hardware such as a gate opener
- If an alternative voltage source such as 24V is required for a lock
- If an additional external power supply is utilised

Note - Only the lock output or the relay can be usedf for each door, both can't be used
By default the "Lock" out put is used, if the relay output is used this must be indicated in the software

Any fail safe or fail secure lock can be installed
Fail safe/fail secure is configured in software by default the configuration is fail safe

Total output for locks controllers and readers should not exceed the input power supply rating

No diodes required when using the "lock" output, the controller is protected from back emf's

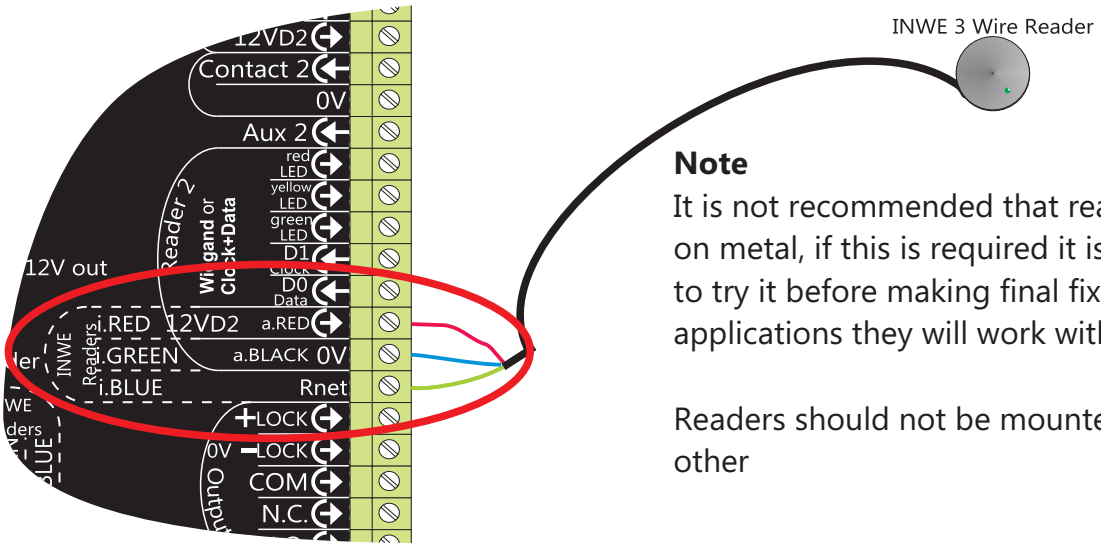
If the relay output is used to supply a loc, a diode should be utilised

The "Lock" output is protected from over current, reversed connections and shorts. If over current is detected output will close, it will be restored in under 1 second when fault is removed

Reader connections

Inwe 3 wire reader

The Inwe 3 wire reader should be connected as indicated below
If readers for each door are connected separately, to their appropriate input, they will autommatically be assigned to the associated lock output
If readers wires are shared, they can be assigned as required via the software
Readers can be assigned as In or Out via the software

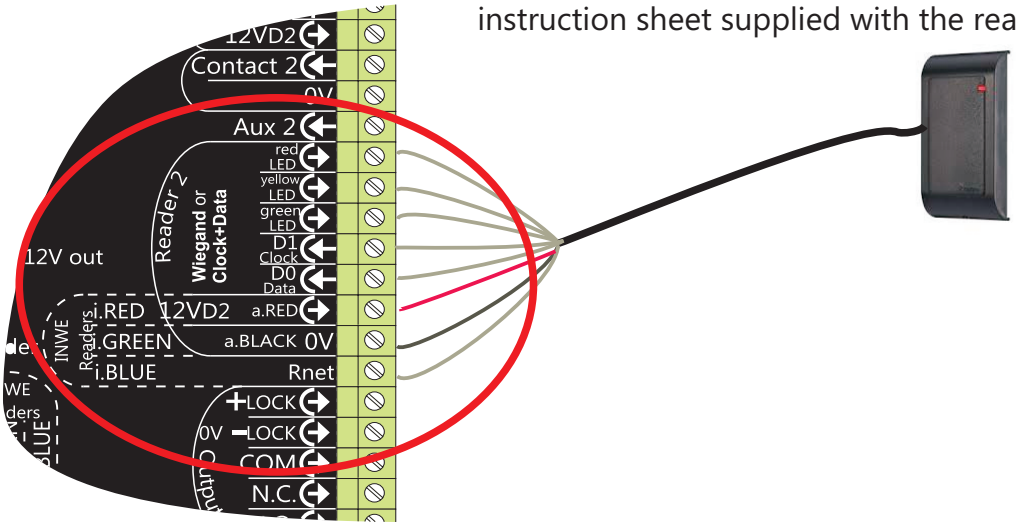


Note
It is not recommended that readers are mounted on metal, if this is required it is recommended to try it before making final fixings, in many applications they will work with a reduced read range

Readers should not be mounted within 600mm of each other

Clock and Data & Wiegand readers can be utilised

The connections can vary depending on the product, please see instruction sheet supplied with the reader



Third party readers can not share cable cores

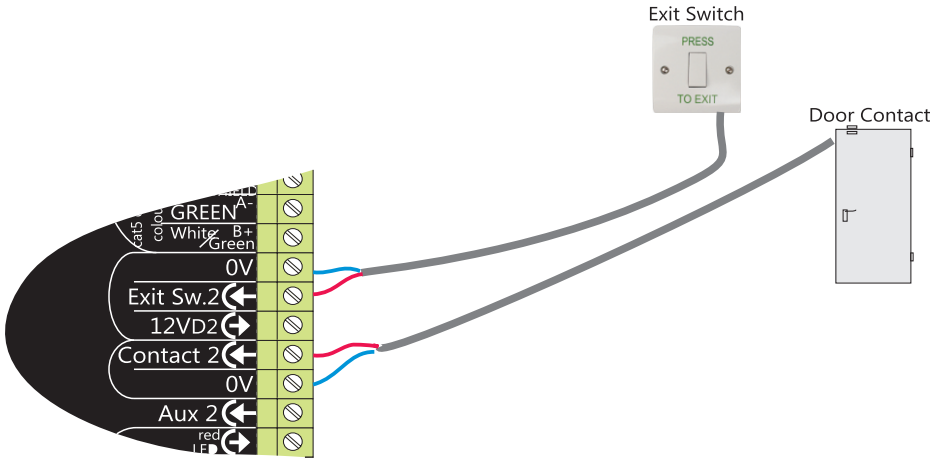
An installation can not be be a combination of Inwe and third party readers

Max cable length for all readers 100 meters

Exit switch & door contacts connections

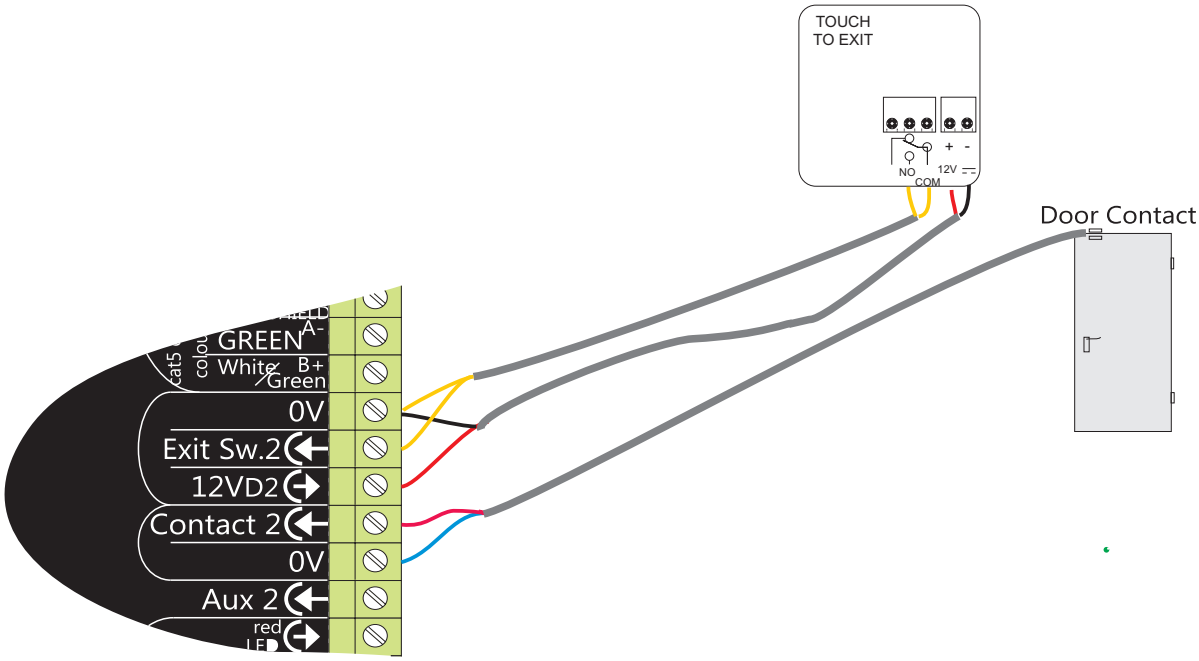
Simple 2 wire exit switches and door contacts are connected as below

If connections are made to the door with which the lock is connected, the association will be made automatically

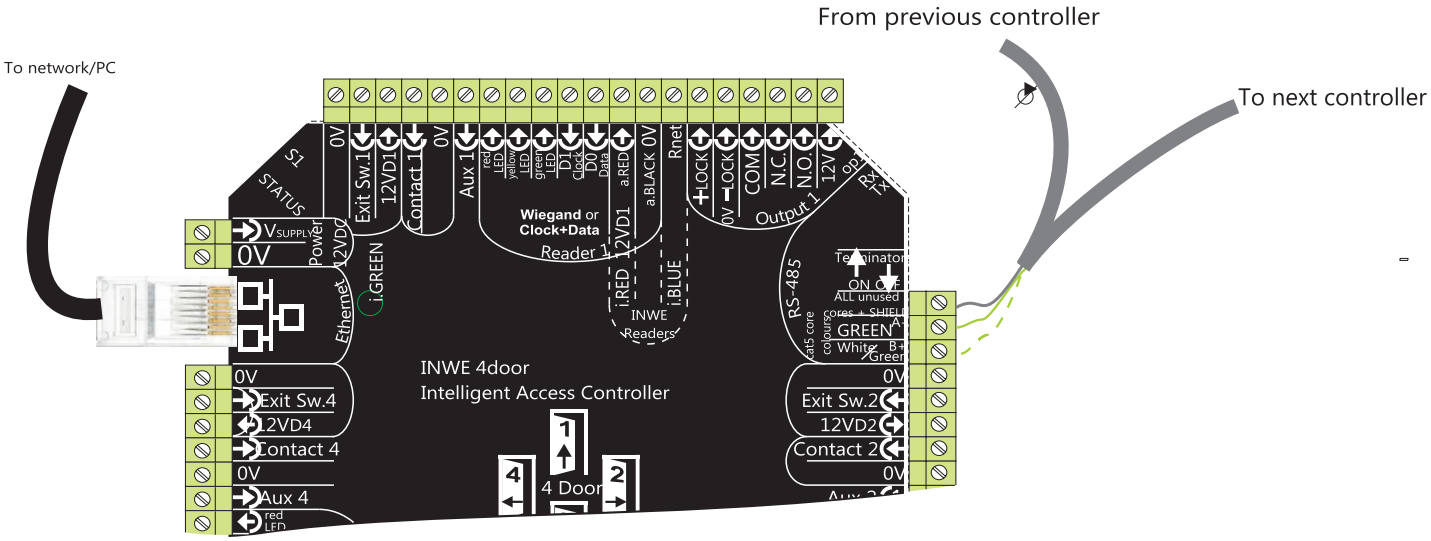


If required associations can be changed from within the software

Exit switches requiring a 12V supply, such as the Inwe, touch sensitive, switch are connected as below



Network connections



Individual controllers can be connected to a sites LAN using RJ45 connectors

Alternatively, controllers can be daisy chained utilising 2cores of CAT5/6 cable,
as above, all cores excepting the green and white & green should be connected together
as indicated above

A patch cable can be utilised to make direct connection from the controller to PC

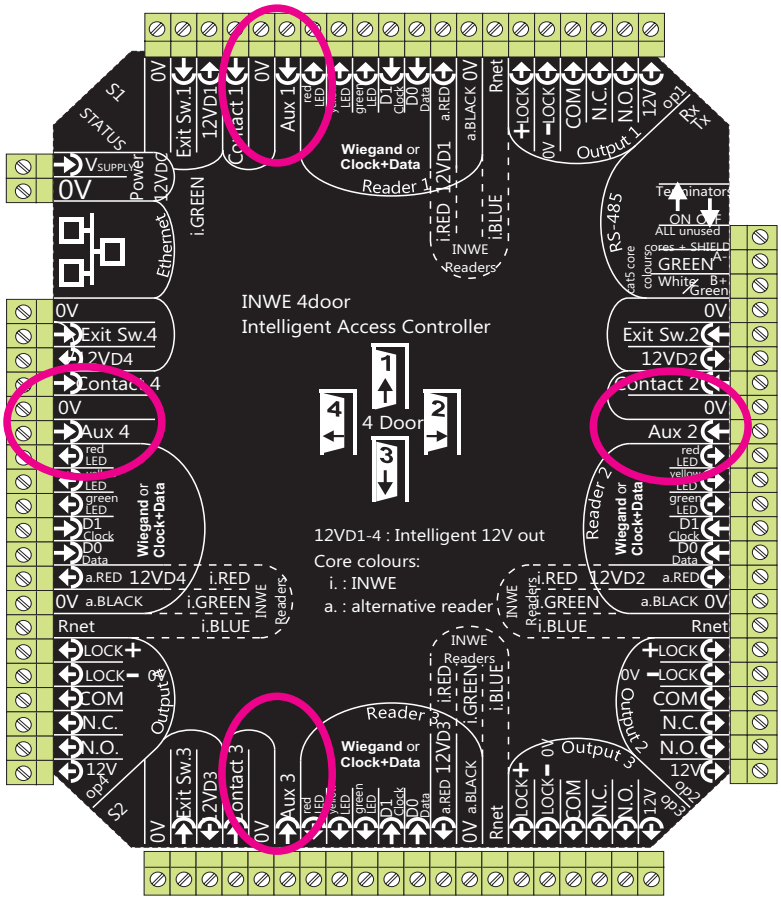
The termination for first and last controller in any daisy chained connection should be turned on

In a daisy chain, any of the controllers can be used to make a connection to a LAN or PC

Additional input connectons

There are 4 inputs on the board as shown below, Aux 1 to 4
These can be utilised as required and named within the software
Possible uses are, but not limited to
- Tamper
- Fire relay input
- Additional exit switch e.g reception desk

Note: Whilst the aux inputs are nominally assigned to the door shown by default, if required, associations can be changed utilising the software



Installing & setting up Inwe

Hardware and controllers
Install controller and hardware as indicated in preceding pages

If contacts, readers, exit switches and locks from a door are connected to the same door conections on the controller they will automatically be associated with the same door

By default, the system is set up for fail safe lock
Note if a fail secure lock is fitted, it will lock whena Tag is presented to the reader

Inwe Changing lock status from fail safe to fail secure can be simply undertaken in the software

Assignment of all items can be changed in software if required

Inwe Reader wiring can share cabling and be assigned via the software, this can be particularly useful if there is an entry and exit reader but can be utilised for up to 16 readers

Software
Download software from Inwe.co.uk

Run Install.....