# Solution Sheet 5 - Air to Air Heat Exchanger
"Grouped and time delayed" with Indoor Air Conditioning Unit.

Air to Air Heat Exchangers can be "Group" controlled via Toshiba TCC link.

When adding Toshiba Air to Air Heat Exchangers (VN-M), to a building which also has Toshiba Air Conditioning Units installed, (the air conditioning units can be from either the split family (RAV) or from the VRF family (MM#)), consider adding the VN-M unit to the TCC link control used by the air conditioning unit, this is a simple wiring process, linking the VN-M unit to the air conditioning unit with a 0.5mm 2 core cable, and will start and stop the VN-M unit when ever the air conditioning unit starts or stops.

A "Group" can comprise of 2 to 8 indoor units of any combination.
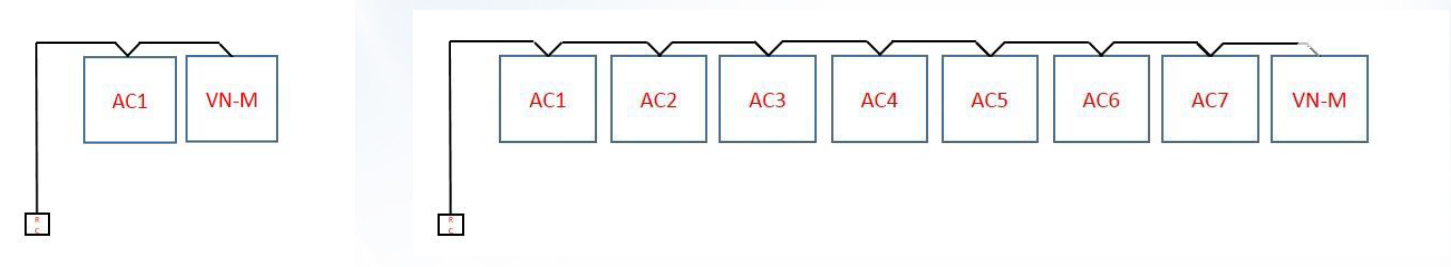
When adding a VN-M to a "Group" manual addressing of the VN-M unit is required, this is carried out via the "Bit Switches" on the printed circuit board, further details of setting the configuration is available in our "Pocket Quick Reference Guide on the Toshiba air to air heat exchanger VN-M range" available to download via our web site www.cdlweb.info

http://www.cdlweb.info/pdfs/Pocket-Quick-Reference-Guide-VNM-2015.pdf

When configured in the "group format" i.e. both the air conditioning unit and the air to air heat exchanger start / stop at the same time, it is possible under very cold ambient conditions for the air conditioning equipment to "work harder", due to the temperature of the air entering the conditioned space via the air to air heat exchanger unit, (Cold in winter and Warm in summer).

Air to air heat exchangers utilise the temperature of the internal conditioned space, to heat up / cool down the "fresh air" entering the conditioned space.

To offset this potential issue, the Toshiba TCC link control has the facility to delay the start of the VN-M unit by up to 1 hour, (configured in 10 minute increments),this would allow the temperature in the conditioned space to rise or fall thus increasing or decreasing the temperature of the fresh air entering the space.

To utilise this delay facility, enter the "Engineering Menu" via the standard remote controller, pressing "TEST, CL & SET" together and held down for 4 seconds,(RBC-AMT32/AMS41/NRC-01), scroll the "Item" code (Right hand display) from default No. 10 to 4B, via the Temperature UP/DOWN buttons, change the "Value" (Left hand display) from the default 0000, via the "Timer UP/DOWN" buttons.

Select a suitable time delay; 0000 = No delay, 0001 = 10 minute delay, up to 0006 = 60 minute delay, press "SET" to accept, then press "TEST", the controller will display "Setting" once completed "Setting" will be removed and the controller will be clear.

Further details on utilising the facilities in the "Engineering Menu" can be found in our "Pocket Quick Reference Documents" for RBC-AMT32/41 and AMS51 remote controllers, which can be found on our web site;

http://www.cdlweb.info/library-headings/library/

Cool Designs Ltd
Raising the Standards in Air Conditioning Distribution
www.cdlweb.info

CERTIFIED CARBON NEUTRAL
division
CarbonNeutral.com

ACR NEWS AWARDS 2015 WINNER
PRODUCT DISTRIBUTOR OF THE YEAR