

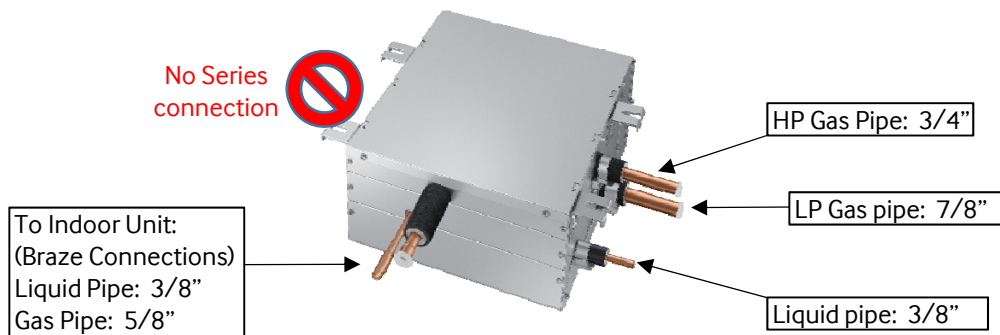
Date: 07/25/2017

Subject: New MCU (Mode Control Unit) Models

Applied Models: MCU-S\*NEK\*N

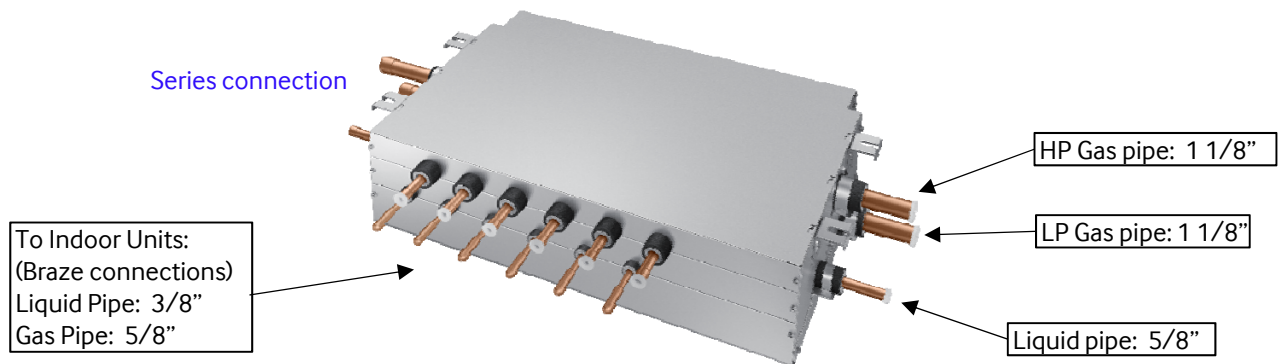
### Features and Compatibility of New MCU Models

#### MCU-S1NEK1N



#### MCU-S2NEK2N/MCU-S4NEK3N/MCU-S6NEK2N

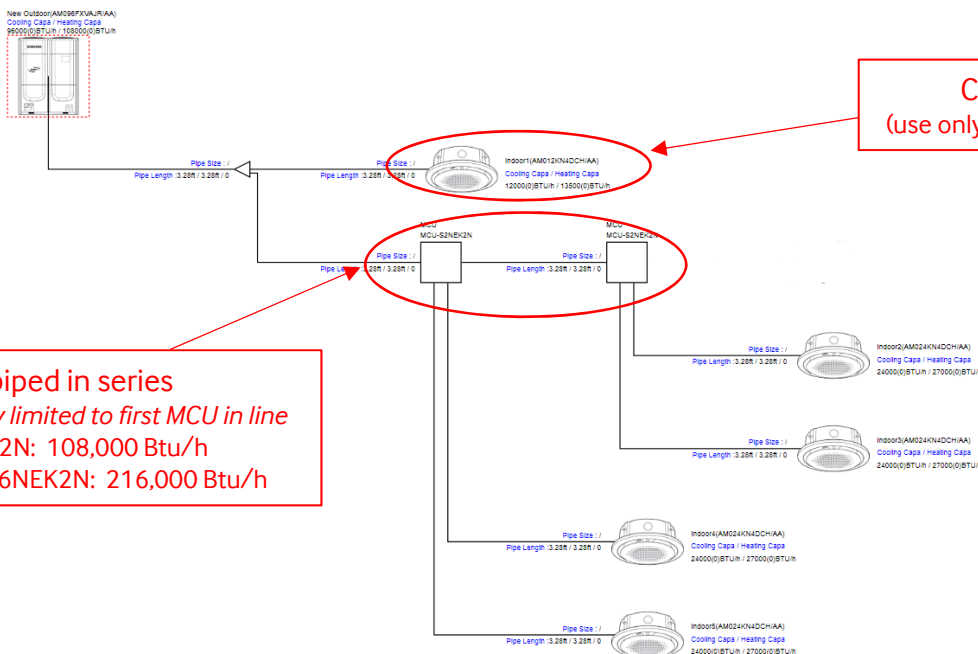
(MCU-S6NEK2N is shown below)



Model		Size (WxHxD) inches	Max. IDU No. per 1 Port	Max. IDU No. (Total)	Max Capacity per 1 Port	Max Capacity For Twined Ports	Max Capacity (Total)
1-Port	MCU-S1NEK1N	13.3 x 7.8 x 16.1	8	8	54,000 Btu/h	Not Applicable	54,000 Btu/h
2-Port	MCU-S2NEK2N	28.6 x 7.8 x 18.5	8	16	54,000 Btu/h	108,000 Btu/h	108,000 Btu/h
4-Port	MCU-S4NEK3N	28.6 x 7.8 x 18.5	8	32	54,000 Btu/h	108,000 Btu/h	216,000 Btu/h
6-Port	MCU-S6NEK2N	28.6 x 7.8 x 18.5	8	32	54,000 Btu/h	108,000 Btu/h	216,000 Btu/h

**Features and Compatibility of New MCU Models**

	Previous models	New models	Notes
Line-up	2/4/6 port	<b>1/2/4/6 port</b>	
Max. IDU No. per 1 Port	1 unit	<b>8 units</b>	same port = same mode
Max. capacity per port	30,000 Btu/h	<b>54,000 Btu/h</b>	
Max. capacity for 2 ports (w/ twinning kit)	48,000 Btu/h (MCU-S*EE1N) 96,000 Btu/h (MCU-S4EE2N)	<b>Max 108,000 Btu/h</b>	Y-joint sold separately Excludes MCU-S1NEK1N
Max. capacity	192,000 Btu/h	<b>MCU-S1NEK1N: 54,000 Btu/h MCU-S2NEK2N: 108,000 Btu/h MCU-S4NEK3N: 216,000 Btu/h MCU-S6NEK2N: 216,000 Btu/h</b>	
Series Connection	Not available	<b>Available</b>	See example below
Cooling only IDU Connection	Not available	<b>Available</b>	IDU must be configured as "cooling only". Refer to installation manual.
Auto address	Not available	<b>Available</b>	
Piping direction	One side	<b>Both sides</b>	1port model - one side
Connection type to IDU	Flare connections	<b>Braze connections</b>	
Drain Pipe	Required	<b>Not required</b>	
Twinned Port connection	Over 30,000 Btu/h (Included with MCU)	<b>Over 54,000 Btu/h (Not included)</b>	Y-joint sold separately 3/8": DB96-23143A 5/8": DB96-23144A



## Features and Compatibility of New MCU Models

- Previous MCU with New DVM S ODU (HR): operates by previous address setting
- New MCU ↔ Previous DVM S HR: Update outdoor S/W (DB91-01741A\_161207)
- ODU Units manufactured before 04/2016 will require the latest MAIN PCB (DB92-03752A).
- Outdoor unit model numbers include:
  - DVM S Water models AM\*\*\*\*XWA\*R/AA with latest MAIN PCB
  - DVM S Water models AM\*\*\*\*XWA\*R1AA, AM\*\*\*\*XWA\*R1AA, and AM\*\*\*\*XWA\*R2AA
  - DVM S models AM\*\*\*\*XVA\*R/AA with latest MAIN PCB
  - DVM S models AM\*\*\*\*XVA\*R2AA
- **Previous MCU and New MCU in same system: Not supported as standard (possible using previous MCU PCB in new MCU)**
- New MCU can use previous PCB (DB92-02787A) : manual address setting

Case	ODU (main)	ODU (Sub)	IDU	IDU	MCU	MCU	Provide function	Note
1	New	New	New	New	New	New	All New function	
2	New	New	New	New	Old	Old	Previous function only	Manual address setting
3	New	New	New	New	New	Old	<b>Not available</b>	Change previous MCU pcb
4	New	New	New	Old	New	New	All New Function	<b>IDU SW update required</b>
5	New	New	New	Old	Old	Old	Previous function only	Manual address setting
6	New	Old	New	Old	New	New	Limited new functions: multiple IDU per port and series connection	<b>IDU SW update required</b> Manual address setting by s-net pro2
7	New	Old	New	Old	Old	Old	Previous function only	Manual address setting
8	Old	Old	New	New	New	New	Limited new functions: multiple IDU per port and series connection	
9	Old	Old	Old	Old	Old	New	Previous function only	Change previous MCU pcb Manual address setting
10	New	Old	New	New	New	New	Limited new functions: multiple IDU per port and series connection	Manual address setting by s-net pro2

**\*\* Please note, "Old" Outdoor Units and Indoor Units listed in the above chart refer to the software version. These units can simply be updated with new software in the field using SNET Pro2 (free download from [www.dvmdownload.com](http://www.dvmdownload.com)) and the S-convector service tool (part # MIM-C02N). Please contact SAMSUNG HVAC Technical Support for the updated files. \*\***

### New MCU models and E213 error code

**Cause of E213:**

When the MCU address does not match the indoor unit address

**Solutions for E213:**

- Run auto pipe pairing by pressing "K2" 13 times
- Manual pipe pairing using SNET Pro2 (MIM-C02N service tool is required)