

Date: 05/02/2017

Subject: Downgrade DVM S models for DVM +2 or +3 systems

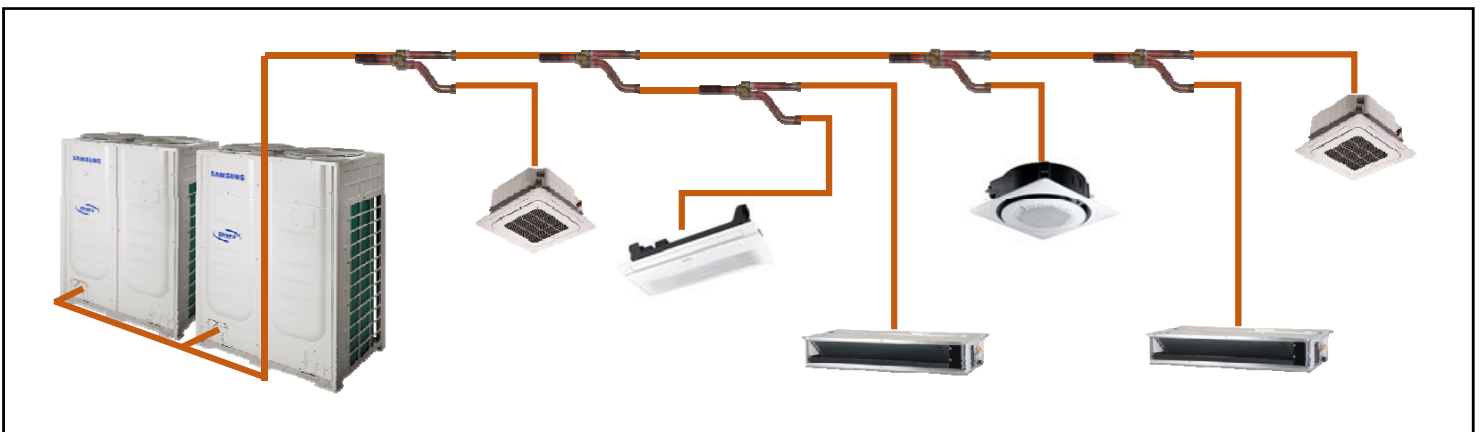
Models: DVM S 6-12 Ton Heat Pump Models

## Downgrade DVM S models for DVM +2 or +3 systems

### When do we need this?

- When an older system (DVM+2, +3) has a unit (outdoor or Indoor) that cannot be repaired

DVM +2 or DVM +3 ODU **or** DVM+3 indoor units



**No spare parts available or repairs are not possible.**



**Replace the older model with a DVM S model**

| Downgrade Target | System                             |                      |               | Remark                                                                                             |
|------------------|------------------------------------|----------------------|---------------|----------------------------------------------------------------------------------------------------|
|                  | Indoor units                       | Outdoor unit         | Compatibility |                                                                                                    |
| Outdoor unit     | Non NASA (DVM+2, +3)               | DVM S downgrade      | Yes           | RVXVHT***FE → AM***FXVAFH<br>RVXVHT***JA → AM***FXVAJH<br>* DVM S HR is not available to downgrade |
| Indoor unit      | Non NASA (DVM+3) + DVM S downgrade | Non NASA (DVM+2, +3) | Yes           | * Some DVM S indoor units do not support downgrade.<br>Ex) RAC, AHU, etc.                          |

## Downgrade DVM S models for DVM +2 or +3 systems

**Precaution:** This is a **special application** as the product will be modified from factory configuration. Please discuss the project with a Samsung HVAC Regional Technical Service Manager before proceeding with the modifications.

### Scenario #1: Downgrade of DVM S outdoor unit to install on a DVM +3 system

| < Outdoor unit >                                                                                                                                                                                                                                                                                | < Indoor unit >                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. Heat Pump models only</li> <li>2. Capacity: 6 ~12 ton modules</li> <li>3. Legacy Main PCB (DB92-03340A) required</li> <li>4. Crank case heater(s) must be installed (if not installed)</li> <li>* DVM S Eco, Heat Recovery is not possible</li> </ul> | <ul style="list-style-type: none"> <li>1. Only DVM+3 indoor units.</li> <li>2. No RAC (high wall) model installed (with EEV or without EEV both)</li> <li>4. Indoor unit's software must be updated to the latest version (Non-NASA)</li> </ul> |



**DB92-03340A**  
must be used



**DB92-03752A**  
is not compatible

## Downgrade of DVM S outdoor unit

### Procedure:

#### 1. Discuss Project with a Regional Technical Service Manager

2. Send product list of the system using Downgrade Report (contact RTSM for report file)
3. Samsung HVAC will send correct software files (Main micom and EEPROM)
4. Update Main micom of indoor units (if DVM+2 Indoor unit, product option code must be set after updating)
5. Update EEPROM (SRC file) & Main micom to DVM S outdoor unit

***\*Will not support DVM S latest functions as this is a special software***

6. Attach Warning Label (see next page) on the PCB box cover and box of all units.
7. Send the following data to Samsung HVAC using “Downgrade Report”:
  - Picture (warning label attached)
  - Auto test run report
  - Trial operation including 1 hour of S-net data.

**\* If this procedure is not followed, Samsung HVAC can not guarantee a properly working system and will no longer be able to provide support for the project.\***

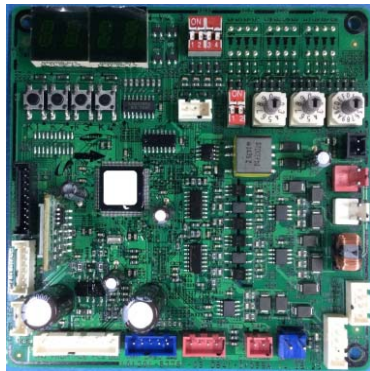
## Downgrade of a DVM S outdoor unit

### Requirement: Order service parts, if needed

\*If Main PCB is the new version (DB92-03752A) then order the part numbers below for downgrade.

\*If the DVM S outdoor unit is not equipped with crankcase Heaters, use the part numbers below

DB92-03440A  
(must be used on downgrade unit)



DB92-03752A  
(can not be used on downgrade unit)



### Service parts for DVM S outdoor unit downgrade

| Model type          | Part Numbers                                           |
|---------------------|--------------------------------------------------------|
| 1 Compressor module | MAIN PCB: DB92-03340A<br>CCH: DB95-00766V              |
| 2 Compressor module | MAIN PCB: DB92-03340A<br>CCH: DB95-00766V, DB95-00766W |

## Downgrade of DVM S outdoor unit

### Software update information

\*\*Please contact your Samsung HVAC Regional Service Manager for required Software, product option codes, and procedure for updating Software\*\*

**<Caution>**

ODU main micom will change communication from NASA to Non NASA.

Once you update outdoor unit's main micom , use S-net Pro for monitoring and EEPROM update as it is non-NASA.

| No. | File                                             | File name | Service Program | Service Tool            |
|-----|--------------------------------------------------|-----------|-----------------|-------------------------|
| 1   | DVM S outdoor unit<br>(EEPROM)                   | *.*.src   | S-net pro 2     | S-converter             |
| 2   | DVM S outdoor unit<br>(Main. DB91-01425A_140224) | *.*.hex   | S-net pro 2     | S-converter             |
| 3   | DVM+2,+3 Indoor unit<br>(Main micom)             | *.*.hex   | G-man (UART)    | I-converter/S-converter |
| 4   | DVM+2,+3 Indoor unit<br>(Main micom)             | *.*.mhx   | FUJITSU (UART)  | I-converter/S-converter |

### Place Warning Label on Downgraded Units (printed locally)

# CAUTION

DVM S MODEL DOWNGRADE

Before Replacing Main PCB

The Main PCB of this unit requires special software.  
Without special software, this unit will not work properly. Contact Samsung HVAC for software

Example of label on outdoor unit



## Downgrade of DVM S indoor unit

This is a **special application** as the product will be modified from factory configuration. Please discuss the project with a Samsung HVAC Regional Technical Service Manager before proceeding with the modifications.

### Scenario #2: Downgrade of DVM S indoor unit to install on a DVM +3 system

#### Requirements:

| < Outdoor unit > | < Indoor unit >                                                                                                                                                                                                                                                  |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. DVM+2 or +3   | 1. Supports models which use below software:<br>▷ SW DB91-01507A<br>- 1 way and 4way cassette, LSP, MSP, HSP duct<br>- Console, ceiling, concealed unit<br><br>▷ SW DB91-01508A<br>- New Forte (with EEV, without EEV)<br><br>▷ SW DB91-01742A<br>- 360 cassette |

#### Procedure

1. Discuss project with Regional Technical Service Manager
2. Send product list of the system using Downgrade Report (contact RTSM for report file)
3. Samsung HVAC will send correct software files
4. Update Main micom of Indoor unit
5. Attach special sticker on the PCB box cover of the downgraded DVM S units.
6. Send the following data to Samsung HVAC using “Downgrade Report” file.
  - Pictures of Indoor Unit(s) - (with warning label attached)
  - Auto test run report
  - Trial operation (1 hour) S-net Pro data.

**\* If this procedure is not followed, Samsung HVAC can not guarantee a properly working system and will no longer be able to provide support for the project.\***

## Downgrade of DVM S indoor unit

### Indoor Unit Software Update Information

\*\*Please contact your Samsung HVAC Regional Technical Service Manager for required Software, product option codes, and procedure for updating Software\*\*

**<Caution>**


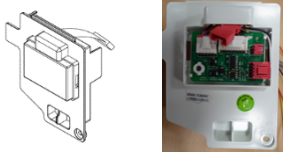
Use the "UART Update" feature in SNET Pro 2 to update Indoor Units to the downgraded software.

Once you update indoor unit's main micom , use S-net pro for monitoring as the unit will be non NASA

| Model                  | NASA S/W    | Non NASA S/W | Service Program | Service Tool |
|------------------------|-------------|--------------|-----------------|--------------|
| Cassette, duct, others | DB91-01507A | DB91-01767A  | S-net pro 2     | S-converter  |
| Wall mount (Neo Forte) | DB91-01508A | DB91-01768A  |                 |              |
| 360 cassette           | DB91-01742A | DB91-01845A  |                 |              |

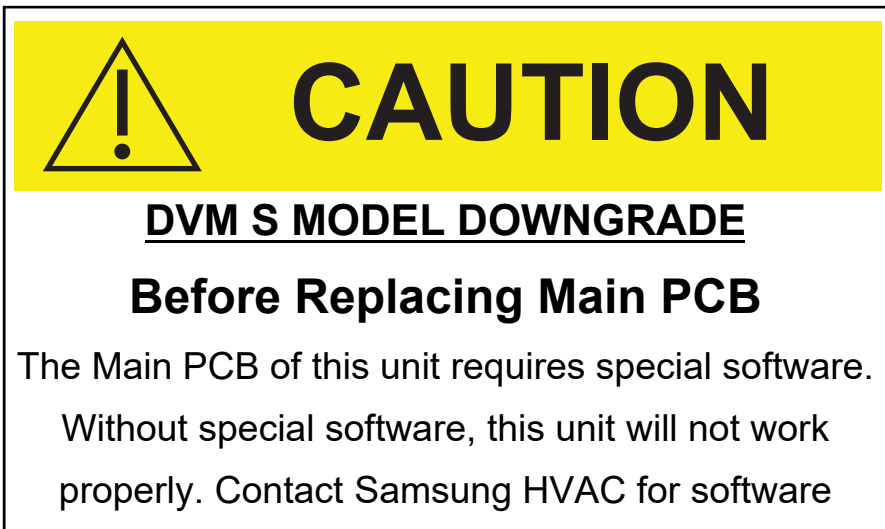
### Wired remote controller - Check wired remote controller type

| IDU                   | Wired Controller Type | Action Needed     | Remark |
|-----------------------|-----------------------|-------------------|--------|
| DVM S downgraded unit | Non NASA              | Replace PLC board | -      |
| DVM S downgraded unit | NASA                  | Not compatible    | -      |

| PLC board           | 1-Way, 4-Way, Mini 4-Way, Duct, 360 Cassette                                        | Wall mount, console                                                                       |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Picture             |  |      |
| Service Part Number | DB92-02770A<br>(for Non Nasa wired remote controller)                               | TBA (under development)<br>Contact Samsung HVAC if needed<br>* Part: wire and comm. Board |

## Downgrade of DVM S indoor unit

Place warning label on downgraded units (printed locally)



### Examples of label on indoor units

