SAMSUNG “WHISPER” SERIES SINGLE ZONE SPLIT SYSTEMS
HVAC Guide Specifications
MOST CURRENT VERSION AVAILABLE AT:
www.Quietside.com
www.SamsungDVM-S.com

Single zone heat pump systems

Samsung Electronics “Whisper” Series Model Numbers:

Model	Indoor Unit	Outdoor Unit
AR09HSFSHWK	AR09HSFSHWKN	AR09HSFSHWKX
AR12HSFSHWK	AR12HSFSHWKN	AR12HSFSHWKX
AR18HSFSHWK	AR18HSFSHWKN	AR18HSFSHWKX
AR24HSFSHWK	AR24HSFSHWKN	AR24HSFSHWKX

Part 1 – General

1.01 SYSTEM DESCRIPTION

The variable capacity, heat pump air conditioning system shall be a Samsung Electronics System. The systems shall be (cool/heat) split system heat pump.

The heat pump system shall consist of a single outdoor condensing unit, single indoor unit, and wireless controller.

The condensing shall be a horizontal discharge, 208/230V, 1Ph, 60Hz unit.

The evaporator shall be wall-mounted (high-wall) type.

1.02 QUALITY ASSURANCE

A. The units shall be listed by Electrical Laboratories (ETL) and bear the ETL label.
B. All wiring shall be in accordance with the National Electrical Code (N.E.C.).
C. The units shall be manufactured in a facility registered to ISO 9001 and ISO14001 which is a set of standards applying to environmental protection set by the International Standard Organization (ISO).
D. A full charge of R-410A for the condensing unit only shall be provided in the condensing unit. Additional refrigerant is required based on lengths of system liquid refrigerant lines.

Part 2 – Warranty

QUIETSIDE CORPORATION
LIMITED WARRANTY STATEMENT

Applicable Only for SAMSUNG "WHISPER" and "PEARL" Mini-Split Air-Conditioner and Heat Pump Systems Distributed From January 1, 2014

1. **LIMITED WARRANTY** – QUIETSIDE CORPORATION ("QUIETSIDE") warrants to the original end-user ("you") of SAMSUNG "WHISPER" and "PEARL" Mini-Split Air-Conditioner and Heat Pump System ("Product") that, if purchased from and installed by a contractor licensed for HVAC installation under applicable local and state laws within the continental United States, Alaska, Hawaii and Canada, and if it proves defective by reason of defects arising from improper workmanship and/or material:

(a) **FIVE YEARS ON PARTS.** The parts are warranted for a period of five (5) years to the original end-user of this Product. If it should prove defective due to improper workmanship and/or material for a period of five (5) years from the date of installation, QUIETSIDE will replace any defective part without charge for the part. Parts used for replacement may be of like kind and quality and may be new or remanufactured. Defective parts must be made available to QUIETSIDE in exchange for the replacement part and become the property of QUIETSIDE.

(b) **SEVEN YEAR COMPRESSOR WARRANTY.** The compressor is warranted for a total period of seven (7) years to the original end-user of this Product. If it should prove defective due to improper workmanship and/or material for a period of seven (7) years from the date of installation, QUIETSIDE will replace any defective compressor without charge for the compressor. Compressors used for replacement may be of like kind and quality and may be new or remanufactured. Defective compressors must be made available to QUIETSIDE in exchange for the replacement compressor and become the property of QUIETSIDE.

(c) **NO LABOR. THESE LIMITED WARRANTIES DO NOT INCLUDE LABOR** or any other costs incurred for service, maintenance, repair, removing, replacing, installing, complying with local building and electric codes, shipping or handling, or replacement of the Product, compressors or any other parts. For items that are designed to be maintained or replaced by the owner, the owner is solely responsible for all labor and other costs of maintaining, installing, replacing, disconnecting or dismantling the Product and parts (such as filters or belts) in connection with owner-required maintenance. Air filter cleaning and/or replacement for each applicable indoor unit are owner-required maintenance, and labor for this procedure is not covered under warranty.

(d) The warranty on the replacement compressor and replacement parts will be limited to the unexpired term of the original warranty for the Product.

2. **CONDITIONS** – The Limited Warranty applies only if the Product: (a) was initially installed within the continental United States, Hawaii or Canada and remains at the site of its original installation (except for mobile home installations); and (b) was installed and operated and maintained in accordance with all written instructions, all applicable local laws, regulations, permits and building codes, and good industry practices.

3. **LIMITED LABOR WARRANTY**: The Limited Warranty described in paragraph 1 and 2 above applies with respect to parts only and NOT labor. Accordingly, subject to the conditions and limitations set forth herein, QUIETSIDE shall provide additional Limited Labor Warranty for a period of one (1) year from proven date of installation of the Product. Pursuant to this Limited Labor Warranty, QUIETSIDE will provide labor services to repair a product or install replacement parts at its designated repair facilities, or at its option, compensate its authorized dealers and contractors at QUIETSIDE standard fixed rates in effect (irrespective of charges actually imposed and time actually expended) to provide such services. This Limited Labor Warranty covers only the installation of parts or repair of the Product, not diagnosis of fault, time taken to obtain such parts or travel time to and from the jobsite. This Limited Labor Warranty also does not cover costs for parts (such as filters or belts) incurred in connection with normal maintenance or owner-required maintenance of the Product. Consult the instructions enclosed with the Product for information regarding recommended maintenance.

4. **THIS LIMITED WARRANTY DOES NOT COVER** damages caused by: (a) accident, abuse, negligence or misuse; (b) operating the Product in a corrosive atmosphere containing chlorine, fluorine, or any other damaging chemicals; (c) modification, alteration, repair service by any person other than an authorized Product distributor, dealer or HVAC contractor; (d) improper matching or application of the Product or components or loss of refrigerant; (e) failure to provide proper maintenance or service to the Product according to manufacturer's instructions; (f) failure to apply, install, and operate the Product in compliance with SAMSUNG's (or QUIETSIDE's) written instructions, training seminars and recommendations; or (g) fluctuations in electrical power;(h) lightning, flood, fire or other acts of God.

This Limited Warranty does not cover if the Product has not been paid for in full.

5. **TO OBTAIN WARRANTY SERVICE:**

a) Contact the licensed contractor who installed the Product or the nearest licensed and authorized contractor, dealer or distributor of any defect within the applicable warranty time period.

b) Proof of the installation date by a licensed contractor is required when requesting warranty service. Present the sales receipt, building permit or other document which establishes proof and date of installation. Otherwise, this Limited Warranty shall be deemed to begin one hundred twenty (120) days after the date of manufacture stamped on the System. THE RETURN OF THE OWNER REGISTRATION CARD IS NOT A CONDITION OF COVERAGE UNDER THIS LIMITED WARRANTY. However, please

return the Owner Registration Card so that QUIETSIDE can contact you if a question of safety arises.

c) To obtain the name of the nearest authorized QUIETSIDE HVAC distributor, dealer or contractor or additional information on warranty program, you may contact:

QUIETSIDE CORPORATION
8750 PIONEER BLVD, SANTA FE SPRINGS
CA 90670. Telephone: 1-562-699-6066

6. This Limited Warranty shall not be enlarged, extended or affected by, and no obligation or liability shall arise or grow out of, QUIETSIDE providing, directly or indirectly, any technical advice, information and/or service to you in connection with the Product.

7. EXCEPT AS OTHERWISE PROVIDED IN THIS LIMITED WARRANTY, QUIETSIDE MAKES NO OTHER WARRANTIES OF ANY KIND WHATSOEVER REGARDING THE PRODUCT. QUIETSIDE DISCLAIMS AND EXCLUDES ALL WARRANTIES NOT EXPRESSLY
PROVIDED HEREIN AND ALL REMEDIES WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR ANY PARTICULAR PURPOSE. NO ONE IS AUTHORIZED TO CHANGE THIS LIMITED WARRANTY IN ANY RESPECT OR TO CREATE ANY OTHER OBLIGATION OR LIABILITY FOR QUIETSIDE IN CONNECTION WITH THE PRODUCT. QUIETSIDE DISCLAIMS ALL LIABILITY FOR THE ACTS, OMISSIONS AND CONDUCT OF ALL THIRD PARTIES (including, without limitation, the installing contractor) IN
CONNECTION WITH OR RELATED TO THE PRODUCT.

8. UNDER NO CIRCUMSTANCES SHALL QUIETSIDE BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOST GOODWILL, LOST REVENUES OR PROFITS, WORK STOPPAGE, SYSTEM FAILURE, IMPAIRMENT OF OTHER GOODS, COSTS OF REMOVAL AND REINSTALLATION OF THE PRODUCT, LOSS OF USE, INJURY TO PERSONS OR PROPERTY ARISING OUT OR RELATED TO THE PRODUCT WHETHER BASED ON BREACH OF WARRANTY, BREACH OF CONTRACT, TORT OR OTHERWISE, EVEN IF QUIETSIDE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. IN NO EVENT SHALL QUIETSIDE'S LIABILITY EXCEED THE ACTUAL PURCHASE PRICE OF THE PRODUCT WITH RESPECT TO WHICH ANY CLAIM IS MADE.

9. Some states do not allow limitations on warranties or exclusions or limitation of damages, so the above limitations or exclusions may not apply.

10. This Limited Warranty gives the owner specific legal rights and the owner may also have other rights that vary from state to state.

11. This Limited Warranty is valid only in the continental United States, Alaska, Hawaii and Canada, and it is not transferable.

12. This warranty contains the sole express warranty made by QUIETSIDE in connection with the Product. No QUIETSIDE distributor, dealer or contractor or other person is authorized to make any other warranties or representations on behalf of QUIETSIDE in connection with the Product.

Part 3 – Outdoor Unit Performance

3.01 The outdoor unit shall perform as indicated below (nominal capacity):

Outdoor Unit	Cooling Capacity* (Btu/h)	Heating Capacity* (Btu/h)
AR09HSFSHWKX	9,000	12,000
AR12HSFSHWKX	12,000	13,600
AR18HSFSHWKX	18,000	20,600
AR24HSFSHWKX	22,000	27,000

*Nominal cooling capacities are based on: Indoor temperature: 80ºF DB, 67ºF WB. Outdoor temperature: 95ºF, 75ºF WB.
*Nominal heating capacities are based on: Indoor temperature: 70ºF DB, 60ºF WB. Outdoor temperature: 43ºF.

Part 4 – Products

4.03 AR**HSFSHWKX Condensing Unit

A. General:
The outdoor unit shall be equipped with multiple circuit boards that shall perform all functions necessary for operation. The outdoor unit shall have a powder coated finish. The outdoor unit shall be completely factory assembled, piped and wired. Each unit shall be run tested at the factory.

1. Outdoor unit shall have a sound rating no higher than the following:

Model	dB
AR09HSFSHWKX	45
AR12HSFSHWKX	46
AR18HSFSHWKX	51
AR24HSFSHWKX	54

2. Both refrigerant lines from the outdoor unit to indoor units shall be insulated.
3. The outdoor unit shall have an accumulator.
4. The outdoor unit shall have a high pressure safety switch, fuse, over-current protection and crank case heater.
5. The outdoor unit shall have the ability to operate with a maximum height difference and total length noted in table below.

Model	Maximum Vertical Separation (feet)	Maximum Line Set Length (feet)
AR09HSFSHWKX	26	50
AR12HSFSHWKX	26	50
AR18HSFSHWKX	50	98
AR24HSFSHWKX	50	98

6. The outdoor unit shall be capable of operating in outside ambient temperatures between 14^0F to 115^0F in cooling mode without additional low ambient controls.
7. The outdoor unit shall be capable of operating in outside ambient temperatures between 0^0F to 115^0F in cooling mode with optional wind baffle accessory (see "accessories" section).
8. The outdoor unit shall be capable of operating in outside ambient temperatures between 5^0F and 75^0F in heating mode without additional low ambient controls.
9. The control circuit between the indoor units, and the outdoor unit shall be 0.5VDC - 7VDC completed using stranded, annealed copper conductor, two-core, 16 AWG, shielded cable to provide total integration of the system.

B. Unit Cabinet:
1. The chassis shall be fabricated of galvanized steel, bonderized and finished with a powder coated baked enamel.

C. Fan:
1. The outdoor unit shall be furnished with one direct drive, variable speed propeller type fan.
2. All fan motors shall be BLDC type.
3. The fan motor shall have inherent protection, have permanently lubricated bearings, and be completely variable speed.
4. The fan motor shall be mounted for quiet operation.
5. The fan shall be provided with a raised guard to prevent contact with moving parts.
6. The outdoor unit shall have horizontal discharge airflow.

D. Refrigerant
1. The condensing unit shall require R410A refrigerant.
2. The condensing unit come charged for system line set lengths up to 25 feet. Additional refrigerant is required if the system line set length is over 25 feet.
3. The condensing unit shall contain a single EEV (electronic expansion valves) with 480 positions each to control refrigerant flow to the indoor unit.

E. Coil:
1. The outdoor coil shall be of nonferrous construction with lanced or corrugated plate fins on copper tubing.
2. Aluminum coil fins shall be coated with a hydrophilic/protective coating to reduce corrosion and promote moisture shedding.
3. The coil shall be protected with an integral guard.
4. Refrigerant flow from the outdoor unit shall be controlled by means of a capacity modulation capable, inverter driven, twin BLDC rotary compressor.

F. Compressor:
1. The compressor shall be an inverter driven, DC voltage, twin BLDC rotary compressor made by Samsung.
2. A crankcase heater shall be factory mounted in/on the compressor.

3. The outdoor unit compressor shall have a variable modulation technology to modulate capacity. The capacity shall be completely variable as noted in the table below:

Model	Cooling Capacity Range (Btu/h)*	Heating Capacity Range (Btu/h)*
AR09HSFSHWKX	3,378 – 10,918	3,378 – 17,742
AR12HSFSHWKX	3,378 – 13,648	3,378 – 20,472
AR18HSFSHWKX	5,459 – 23,884	4,094 – 27,296
AR24HSFSHWKX	8,871 – 31,732	7,506 – 40,944

*Nominal cooling capacities are based on: Indoor temperature: 80ºF DB, 67ºF WB. Outdoor temperature: 95ºF, 75ºF WB.
*Nominal heating capacities are based on: Indoor temperature: 70ºF DB, 60ºF WB. Outdoor temperature: 43ºF.

4. The compressor shall be equipped with an internal thermal overload.
5. The compressor shall be mounted to avoid the transmission of vibration.

G. Electrical:
1. The outdoor unit electrical power shall be 208/230 volts, 1 phase, 60 hertz.
2. The unit shall be capable of satisfactory operation within voltage limitations of 187-228 volts (208V/60Hz) or 207-253 volts (230V/60Hz) with a maximum 25A overcurrent protection.
3. The outdoor unit shall be controlled by integral microprocessors.
4. The control circuit between the indoor units and the outdoor unit shall be 0.5VDC - 7VDC completed using stranded, annealed copper conductor, 16 AWG, shielded, two-core cable to provide total integration of the system.
5. The outdoor unit shall provide power to the indoor unit with 14 AWG X 3 power wire (2 X high voltage wires, 1 X ground). The power wire shall be run from the condensing unit to indoor unit.

4.04 AR**HSFSHWKN (WALL-MOUNTED) INDOOR UNIT

A. General:
The indoor unit shall be wall-mounted type with a slim silhouette. The indoor unit shall ship with a wireless controller as standard.

B. Indoor Unit
The indoor unit shall be factory assembled, wired and run tested. Contained within the unit shall be all factory wiring, piping, control circuit board and fan motor. An electronic modulating linear expansion valves is located inside the condensing unit for refrigerant control. The unit shall have a self-diagnostic function, 3-minute time delay mechanism, and an auto restart function. The system shall have a “Smart Install” operation mode to ensure system readiness after installation. Indoor unit and refrigerant pipes shall be charged with dehydrated nitrogen gas before shipment from the factory. The indoor unit shall have a 2-step cooling function that will run in turbo-mode initially then reduce capacity and operate in Dry mode once set point has been reached. The indoor unit shall have a fast comfort option to operate the system at a fixed, high capacity for thirty

(30) minutes enabled with the wireless controller. The indoor unit shall have a night time sleep mode to reduce system noise and provide optimal sleep conditions enabled with the wireless controller. The indoor unit shall have a single-user function enabled with the wireless controller to reduce the maximum system capacity during mild conditions. The indoor unit shall have a single event, ON/OFF timer setting enabled at the wireless controller. The indoor unit high voltage terminals shall have a thermal fuse to prevent overheating due to loose connections of damaged components.

C. Unit Cabinet:
1. The casing shall be UL94 V0 with a white finish.
2. Multi directional drain and refrigerant piping offering four (4) directions for refrigerant piping and four (4) directions for draining shall be standard.
3. Drain hose shall be on the right-hand side of the drain pan (when facing the front) as standard with optional left-hand side connection.
4. There shall be a separate galvanized steel mounting plate which secures the unit firmly to the wall.
5. The indoor unit shall have easy-access pipe and drain connections via access panel on front of unit for easier installation and service allowing maintenance without pulling the unit out from the wall thus preventing property damage.
6. LED's on front of unit, behind louver, shall provide unit operation and error status.

D. Fan:
1. The indoor fan assembly shall be a cross-flow fan direct driven by a single motor.
2. The indoor fan shall be statically and dynamically balanced to run on a motor with permanently lubricated bearings.
3. A manual adjustable guide vane shall provide the ability to change the airflow from side to side (left to right).
4. A motorized air sweep louver shall provide an automatic change in airflow by directing the air up and down to provide uniform air distribution.
5. The motorized supply air louver shall be hinged from the top reducing restriction and air noise.
6. The indoor unit cabinet shall have a triangular shape allowing for a larger fan and supply air outlet providing superior air throw at lower sound levels.
7. The indoor fan shall consist of various speeds, as indicated in below table.

Model Number	Fan Speed Setting
AR09HSFSHWKN AR12HSFSHWKN AR18HSFSHWKN AR24HSFSHWKN	(UL) - Low – Mid – High - Turbo

E. Filter:
1. Return air shall be filtered by means of an easily removable, electro-static, washable filter.
2. The indoor unit air filter shall be on top of the unit and accessible without opening a panel or door providing simple access for the end-user.

F. Coil:
1. The indoor coil shall be of nonferrous construction with Slit fins on copper tubing.
2. The tubing shall have inner grooves for high efficiency heat exchange.
3. Aluminum coil fins shall be coated with a hydrophilic/protective coating to reduce corrosion and promote moisture shedding.
4. All tube joints shall be brazed with phos-copper or silver alloy.
5. The coils shall be pressure tested at the factory.
6. A condensate pan and drain shall be provided under the coil.
7. Both refrigerant lines to the indoor unit shall be insulated.

G. Electrical:
1. The unit electrical power shall be 208/230 volts, 1-phase, 60 hertz supplied from the condensing unit.
2. The system shall be capable of satisfactory operation within voltage limits of 187-228 volts (208V/60Hz) or 207-253 volts (230V/60Hz)
3. The indoor unit PCB contains a time-lag fuse.
4. The control circuit between the indoor units, and the outdoor unit shall be 0.5VDC - 7VDC completed using stranded, annealed copper conductor, two-core, 16 AWG, shielded cable to provide total integration of the system.

H. Standard Controls:
1. The indoor unit shall include a wireless controller as standard.
2. Function: The wireless controller shall control the following operations: On/Off, Operation Mode (auto, cool, heat, dry, and fan), temperature set point, “Fast Comfort” mode, “Single User” mode, fan speed setting, and other settings noted in the table below.

Simple Wireless Remote Controller	
Item	**Description**
ON/OFF	Run and stop operation
ON/OFF Timer	• Single event ON/OFF timer • Setting range: 0 ~ 12 hours
Operation Mode	• Switches between Auto/Cool/Dry/Fan/Heat • “Single User” mode • “Fast Comfort” mode
Temperature Setting	• Sets the temperature for a single unit. • Range of temperature setting in 1^0F increments: o Auto/Cool/Dry: 65°F-86°F o Heat: 61°F-86°F
Fan Speed Setting	• Models with 3 air flow speed settings: o High/Mid/Low/Auto
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed
Option Code Editing	Allows user/installer to modify operation option codes and system settings

4.05 OPTIONAL ACCESSORIES

1. AQN-WRP Premium wired controller kit
    1. AQN-WRP kit shall consist of MWR-WE10 wired controller and MIM-A00A sub-PCB.
    2. Connection: Can control up to 16 Samsung indoor units (defined and controlled as one group). Sub-PCB shall install inside the indoor unit.
    3. Dimensions: 4 5/8” x 4 7/8” in size and white in color
    4. Easy indoor unit control
        a. Indoor unit operation ON/OFF
        b. Indoor unit operation mode, set temperature, air flow direction, fan speed
        c. Quiet and sleep modes
        d. Error display
        e. Filter replacement alarm display and reset
        f. Single indoor unit control or multiple unit control (maximum 16 units)
        g. Upper/lower temperature setting
        h. Automatic operation stop function
        i. Daily/weekly operating schedule setting

Premium Wired Controller			
Item	**Description**	**Operation**	**Display**
ON/OFF	Run and stop operation for a single group	Each Group	Each Group
Operation Mode	Switches between Auto/Cool/Dry/ Fan/Heat	Each Group	Each Group
Temperature Setting	• Set the temperature for a single group. • Range of temperature setting o Auto/Cool/Dry: 65°F-86°F o Heat: 61°F-86°F	Each Group	Each Group
Fan Speed Setting	• Models with 3 air flow speed settings: o High /Mid/Low/Auto	Each Group	Each Group
Air Flow Direction Setting	• Air flow 2-step direction (Swing/Stop) • Direct setting at a specific angle. • Air flow operation varies depending on the model.	Each Group	Each Group
Weekly Schedule	• ON/OFF, temperature, fan speed, and mode settings can be specified • Maximum 6 schedules may be set for each day. • Real-time clock function: current time, day display function	Each Group	Each Group
Button lock	• Button permission level setting (On/Off / Temperature setting / Mode button / Fan speed) • Temperature limit setting • After power reset, setting value is restored • Various restriction capabilities	Each Group	Each Group
Specified Function	• Automatic stop setting o Setting time range : 0-12 hours	Each Group	Each Group
Service Mode	• Setting/Viewing indoor unit option code • Viewing indoor unit RMC address • Viewing indoor unit cycle data • Setting/Viewing temperature sensor compensation of the wired remote controller(-9°~ +9°) • Viewing the RPM compensation	Each Group	Each Group

Premium Wired Controller			
Item	**Description**	**Operation**	**Display**
	• Viewing the filter time (1,000 hours or 2,000 hours) • Viewing indoor unit temperature sensor compensation under Heating (+2 or +5°) • Viewing the H/W option setting • Viewing the wired remote controller software version		
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed	Each Group	Each Group
Permit / Prohibit Local Operation	Setting/releasing of simplified locking for remote control buttons can be performed	Each Group	N/A
Quiet Mode	Select the Quiet mode to run the indoor unit to the set mode to lower the fan noise level.	Each Group	N/A
Room Temperature	Actual room temperature display (or set temperature display)	Each Group	Each Group

5. Other Premium Controller features
    a. Different button permission levels
    b. Partial button lock option (on/off, selection, temperature setting, fan speed, and schedule setting buttons can be locked individually)
    c. Backlight
    d. Daylight savings clock advance option
    e. Temperature limit setting option
    f. Real-time clock function; current time/day display function
    g. Built-in room temperature sensor
    h. Indoor unit operation state display
    i. Service mode support (indoor unit cycle data monitoring, option code monitoring and setting, and dip switch state monitoring)
6. Specifications
    a. 4 wire connection
    b. DC 12V (V1/V2) power supplied by indoor unit
    c. RS485 communication (F3/F4)
    d. Can sense temperature via internal sensor, temperature sensor inside the air handler, or use the average temperature between controller and air indoor unit sensors
    e. The Premium Controller shall require no addressing.
    f. The Premium Controller shall connect using four-wire (2 wires for power supply and the other two for communication), untwisted, shielded. The Premium Controller shall require cross-over wiring for grouping across indoor units.
    g. 16AWG shielded cable is necessary for proper operation

B. AQN-WRS Standard wired controller kit
    1. AQN-WRP kit shall consist of MWR-WH00 wired controller and MIM-A00A sub-PCB.

2. Connection: The Standard Controller shall be capable of controlling up to 16 indoor units (defined as 1 group). The sub-PCB shall install inside the indoor unit.
3. Dimensions: 4.8” x 4.7” in size and white in color with a light-white LCD display.
4. Easy indoor unit control
    a. Indoor unit operation ON/OFF
    b. Indoor unit operation mode, set temperature, air flow direction, fan speed
    c. Error display
    d. Filter replacement alarm display and reset
    e. Single indoor unit control or multiple unit control (maximum 16 units)
    f. Upper/lower temperature setting
    g. Automatic operation stop function

Standard Wired Controller			
Item	**Description**	**Operation**	**Display**
ON/OFF	Run and stop operation for a single group	Each Group	Each Group
Operation Mode	Switches between Auto/Cool/Dry/Fan/Heat	Each Group	Each Group

Temperature Setting	• Sets the temperature for a single group.
	• Range of temperature setting
	  ○ Auto/Cool/Dry: 65°F-86°F
	  ○ Heat: 61°F-86°F
		Each Group	Each Group

Fan Speed Setting	High /Mid/Low/Auto	Each Group	Each Group
Air Flow Direction Setting	• Air flow 2-step direction (Swing/Stop) • Direct setting at a specific angle. • Air flow operation varies depending on the model.	Each Group	Each Group
Button lock	• Button permission level setting (On/Off / Temperature setting / Mode button / Fan speed) • Temperature limit setting • After power reset, the setting value is restored	Each Group	Each Group
Specified Function	• Automatic stop setting ○ Setting time range : 0-12 hours	Each Group	Each Group
Service Mode	• Setting/Viewing indoor unit option code • Viewing indoor unit RMC address • Viewing indoor unit cycle data • Setting/Viewing temperature sensor compensation of the wired remote controller(-9°~ +9°) • Viewing the RPM compensation • Viewing the filter time (1,000 hours or 2,000 hours) • Viewing indoor unit temperature sensor compensation under Heating (+2 or +5°) • Viewing the H/W option setting	Each Group	Each Group
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error	Each Group	Each Group

Standard Wired Controller			
Item	**Description**	**Operation**	**Display**
	code are displayed		
Permit / Prohibit Local Operation	Setting/releasing of simplified locking for remote control buttons can be performed	Each Group	N/A
Quiet Mode	Select the Quiet mode to run the indoor unit to the set mode to lower the fan noise level.	Each Group	N/A
Room Temperature	• Displays set temperature. • Room temperature is viewable when room temperature button is pressed	Each Group	Each Group

5. Other Standard Controller features
    a. Different button permission levels
    b. Temperature limit setting option
    c. Built-in room temperature sensor
    d. Indoor unit operation state display
    e. Service mode support (indoor unit cycle data monitoring, option code monitoring and setting, and dip switch state monitoring)
6. Specifications
    a. 4 wire connection
    b. DC 12V (V1/V2) power supplied by indoor unit
    c. RS485 communication (F3/F4)
    d. Can sense temperature via internal sensor, temperature sensor inside the air handler, or use the average temperature between controller and air indoor unit sensors
    e. The Standard Controller shall require no addressing. The Standard Controller shall connect using four-wire (2 wires for power supply and the other two for communication), untwisted, shielded control wire to the connection terminal on the indoor unit. The Standard Controller shall require cross-over wiring for grouping across indoor units.
    f. The Standard Controller wired controller shall include interconnect cable as standard (32').

C. Wind baffles for low ambient cooling
1. Front wind baffle (WBMF)
    a. WBMF-9/12/18 wind shield/baffle is compatible with: AR09HSFSHWKX, AR12HSFSHWKX, AR18HSFSHWKX outdoor units.
    b. WBMF-24/36 wind shield/baffle is compatible with: AR18HSFSHWKX and AR18HSFSHWKX outdoor units.
    c. Designed to be placed on fan discharge side (front).
    d. Only a front shield is required for applications where the mini split is adjacent to a structure that would protect the intake side from prevailing wind. Applications without this protection would require a back shield (ex: roof top).
    e. The wind baffle material shall be clear plastic.

2. Back wind baffle (WBMB)

a. WBMB-9/12/18/36 wind shield/baffle compatible with AR09HSFSHWKX, AR12HSFSHWKX, AR18HSFSHWKX outdoor units.
b. WBMB-24 wind shield/baffle is compatible with AR24HSFSHWK outdoor units.
c. Designed to be placed on the coil intake side of the unit (back).
d. Note: This back shield is only required for applications where the mini split is not adjacent to a structure that would protect the intake side from prevailing wind (ex: roof top).
e. The wind baffle material shall be clear plastic.

D. WIFI-AR09-24, Wi-Fi Adapter
1. General Information
a. Wi-Fi adapter for Samsung "Whisper" single zone split systems.
b. The Wi-Fi adapter shall install in a single indoor unit.
c. The Wi-Fi adapter shall allow control of system on a local network via Wi-Fi or through the internet when outside of home/office with Samsung's "Smart Air Conditioner" app (available in Android and Apple app stores).
2. Control Features
a. The Wi-Fi adapter shall provide basic control and monitoring of: power, mode, set temperature, room temperature, fan speed, and louver swing.
b. The Wi-Fi adapter shall provide timer ON and OFF feature allowing scheduling of power ON and power OFF events on specific days at specific times.
c. The Wi-Fi adapter shall provide the ability to configure and store common control settings ("My Wind" function) allowing the user to save common air conditioner control configurations for quick and easy system operation (mode, set temperature, fan speed, and louver swing).
d. The Wi-Fi adapter shall provide an air filter reminder option that will display hours of fan operation since last filter reminder reset.
e. The Wi-Fi adapter shall provide an optional filter reminder with four reminder intervals (180, 300, 500, and 700 hours of fan operation).
f. The Wi-Fi adapter shall provide error notifications.
3. Specifications
a. Samsung's "Smart Air Conditioner" app can monitor and control an unlimited quantity indoor units.
b. The Wi-Fi adapter shall install inside front cover of an indoor unit.
c. A network with Wi-Fi connectivity is required to use the Wi-Fi adapter. Wi-Fi-direct control is not possible.
d. Use is based on acceptance of manufacturer’s terms and conditions when creating user profile and registering devices.
e. Wired and wireless controllers can be used in conjunction with the Wi-Fi adapter.

E. MIM-N01 Central control, communication converter, interface module.
1. Specifications
a. Allows connection of DVM Plus III and Samsung single zone and multi-

zone split systems to DVM S system NASA communication protocol central control options: MIM-D00AN (Data Management Server 2), MIM-B17N (BACnet gateway), MIM-B18N (LONWORKS gateway), MCM-A202DN (ON/OFF controller), MCM-A300N (touchscreen controller).

b. 12VDC
c. One per system

2. Connection
   a. Installs at indoor unit
   b. Requires MIM-A00A sub-PCB for connection
   c. Includes connection wires and installation box for simple installation.