

Samsung "Smart Pearl", wall mounted evaporator, split system

Job Name

Purchaser

Submitted to

Unit Designation

Location

Engineer

Reference

Approval

Construction

Schedule #

Specifications

Model	System Model Number		AR12KSWDHWKCV
	Indoor Unit Model Number		AR12KSWDHWKN
	Outdoor Unit Model Number		AR12KSWDHWKX
Performance	Nominal Capacity*	Cooling / Heating (Btu/h)	12,000 / 13,600
	Capacity Range	Cooling (Btu/h)	3,100 - 13,600
		Heating (Btu/h)	2,700 - 22,500
	SEER / EER		26.10 / 14.10
	COP		4.30
	HSPF		11.50
	AHRI Certification Number		8677406
	Condensate (pints/h)		3.17
Power	Voltage	0 / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		176 - 254 (max. 3% deviation from each)
	Operating Current (Low/Std./High)	Cooling (A)	1.40 / 4.0 / 5.3
		Heating (A)	1.00 / 4.3 / 8.50
	Max. Breaker	Amps	15
	Min. Circuit Ampacity (A)		10.3
Dimensions	W x H x D (in.)	Indoor Unit	35 9/32 x 10 1/4 x 10 13/16
		Outdoor Unit	34 5/8 x 25 1/8 x 12 3/16
	Weight (lbs.)	Indoor Unit	24.7
		Outdoor Unit	88.18
	Condensate Connection		11/16" OD
Sound Pressure Level	Indoor Unit (dB)	Low / High	20 / 41
	Outdoor Unit (dB)	High	46
Operating Temperatures °F(°C)	Outdoor	Cooling ¹	14 ~ 115°F(-10 ~ 46°C) ¹
		Heating	5 ~ 75°F(-15 ~ 24°C)
	Indoor	Cooling	61 ~ 90°F(16 ~ 32°C)
		Heating	T ≤ 80°F(27°C)
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	3/8"
	Maximum / Minimum Line Set Length (ft.)		50 / 10
	Maximum Vertical Separation (ft.)		26
Refrigerant	Type		R410A
	Control Method		Electronic Expansion Valve
	Factory Charge	oz.	40.6
	Charged for		25'
	Additional Refrigerant		0.16 oz/ft. over 25 ft.
Compressor	Manufacturer		Samsung
	Type		DC, Inverter Driven, Rotary
	RLLAA	A	8.0
Evaporator Fan	Type		BLDC motor with cross-flow fan (1)
	Air Volume	CFM (L / M / H / T)	310 / 360 / 420 / 460
	Consumption	Watts	27
	Operating Current	Amps	0.12
Condenser Fan	Motor		BLDC motor with axial fan (1)
	Output	Watts	39
	FLA	Amps	0.17
Optional Accessories	Condensate pump	Aspen Mini Orange Blue Diamond	ASP-MO-UNIV 110-250 BD-BLUE230
	Wired Controller ²		AR-WRP2
	Wireless controller holder		DB61-06087A
	External Contact Control and Operation/Error Output (also requires wired controller sub-PCB DB93-11412A)		MIM-B14 (also requires wired controller sub-PCB DB93-11412A)
	Line sets - insulated and flared, interconnect cables included		25' - ILS2506
			50' - ILS5006
	Wall bracket (for outdoor unit)		CKN-250 or CKN-500
	Wind Baffle / Guard	Front Back	WBF-3M WBB-6M-B
Safety	Certifications		ETL (UL 1995)
	Devices	PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing	

Certified in accordance with the AHRI Unitary Small Air-Source Heat Pumps (USHP) Certification Program which is based on the latest edition of AHRI Standard 210/240.

¹ 0 ~ 115°F(-18 ~ 46°C) with wind baffle accessory

² AR-WRP2 includes MWR-WE13U wired controller with scheduling, sub-PCB (DB93-11412A), and sub-PCB harness (DB93-11405A).

Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your contractor for details or visit www.energystar.gov.



(actual equipment appearance may vary)

General Information

- The indoor unit shall have Wi-Fi capability as standard for control and monitoring with the Samsung Smart Home app (Android, iOS)
- Outdoor unit shall provide 208/230V power to indoor unit via 14 AWG X 3 interconnect power cable
- Electro-static, washable, main filter as standard accessible from the front/top of unit.

Construction

- Indoor unit chassis shall be UL94 V0 with a galvanized steel mounting bracket
- The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability
- The indoor unit shall have easy-access pipe and drain connections via access panel on front of unit for easier installation and service

Heat Exchanger

- The indoor heat exchanger shall be mechanically bonded fin to copper tube
- The outdoor unit heat exchanger shall be aluminum, flat fin, micro channel

Refrigerant System

- The compressor shall be hermetically sealed, inverter controlled, BLDC Rotary
- Refrigerant flow shall be controlled by electronic expansion valve at outdoor unit

Indoor Fan

- The indoor fan shall be a single, antibacterial cross-flow type
- Three fan speed settings and auto setting
- Automatic (motorized) vertical and horizontal swing louvers
- Indoor unit shape provides superior air throw compared to conventional models

General Control

- Control signal shall be DDC type signal
- Unit shall have a built-in Wi-Fi adapter as standard to allow control with mobile devices (details on page 4)
- Interconnect control wiring shall be 16 AWG X 2 shielded wire between outdoor and indoor units
- The indoor unit shall ship with a wireless controller and batteries as standard
- Optional wired control available

Convenience

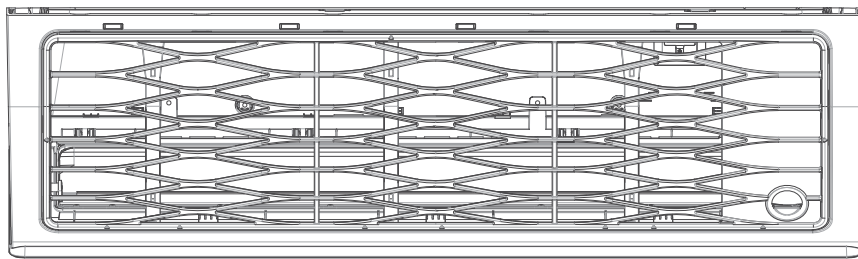
- Auto restart
- Digital display on the front of indoor unit (hidden behind louver when off) to display temperature and service codes
- "Fast Comfort" mode to quickly reach set temperature
- Auto changeover
- 24 hour, single event ON/OFF timer
- Good sleep mode
- Quiet mode
- Dry mode
- Single User Mode to reduce energy consumption during low demand operation
- Air filter cleaning can be done easily without opening the indoor unit
- Filter cleaning reminder indicator
- Display ON/OFF and beep ON/OFF with wireless controller
- Smart install mode - startup system diagnostics operation to ensure system readiness during initial operation

Warranty

10 Years Compressor, 10 Years Parts, 1 Year Limited Labor (registration required)

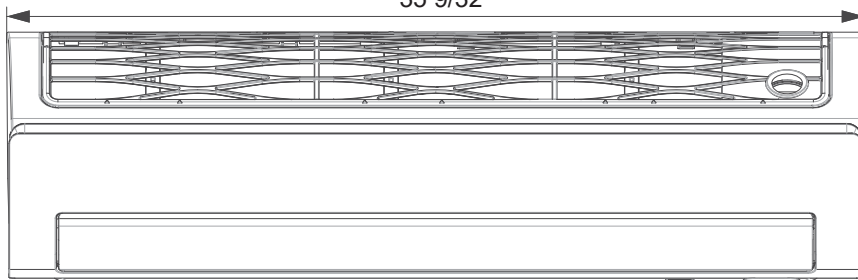
Samsung "Smart Pearl", wall mounted evaporator, split system
Indoor unit dimensional drawing

Unit: inches



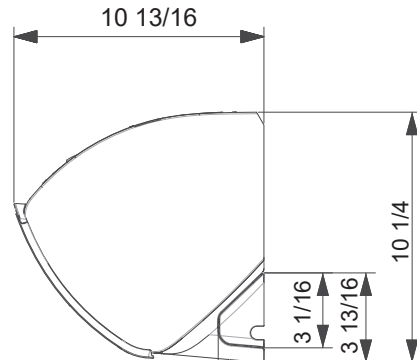
TOP

35 9/32

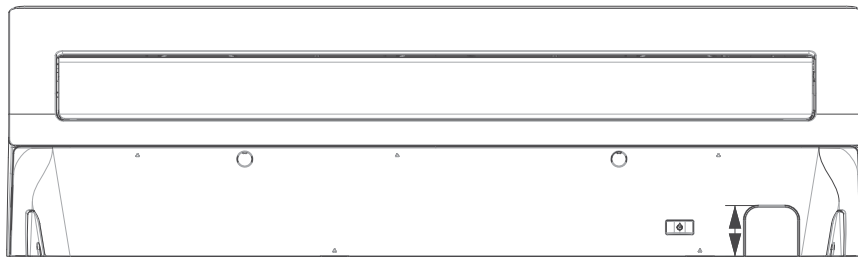


FRONT

IR receiver / ON/OFF button

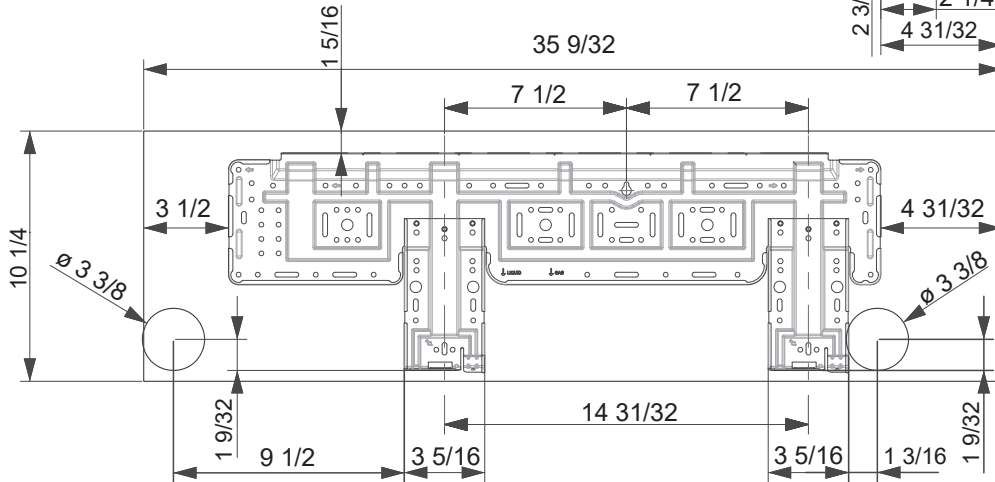


RIGHT



BOTTOM

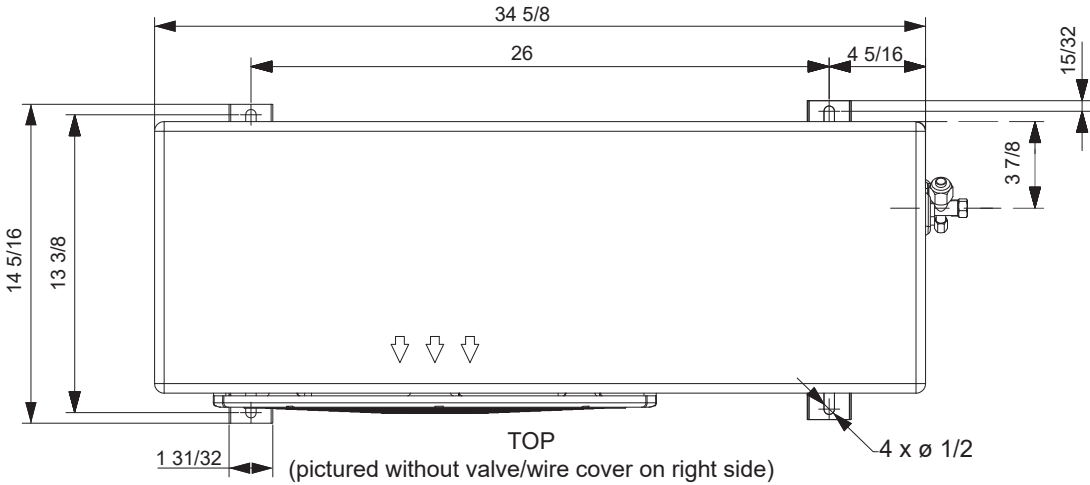
35 9/32



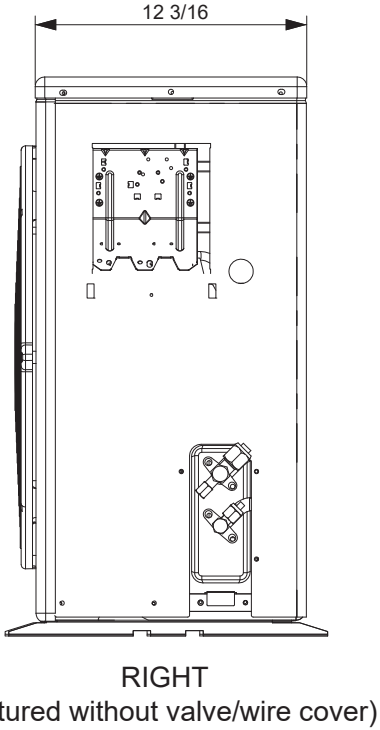
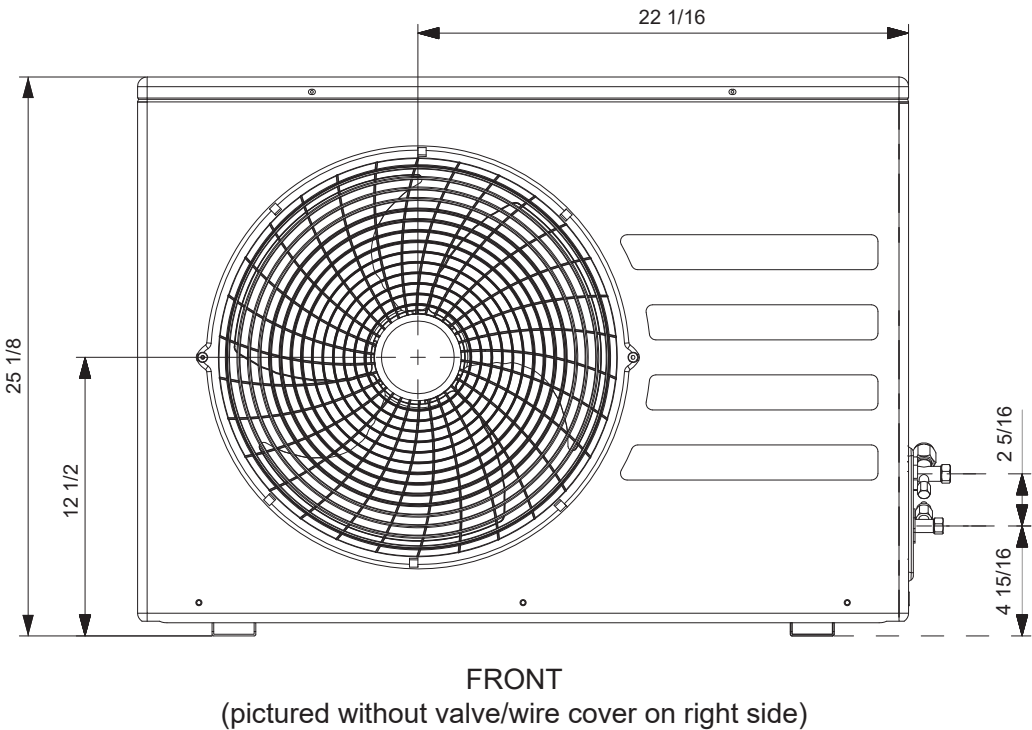
MOUNTING PLATE

Samsung "Smart Pearl", wall mounted evaporator, split system
Outdoor unit dimensional drawing

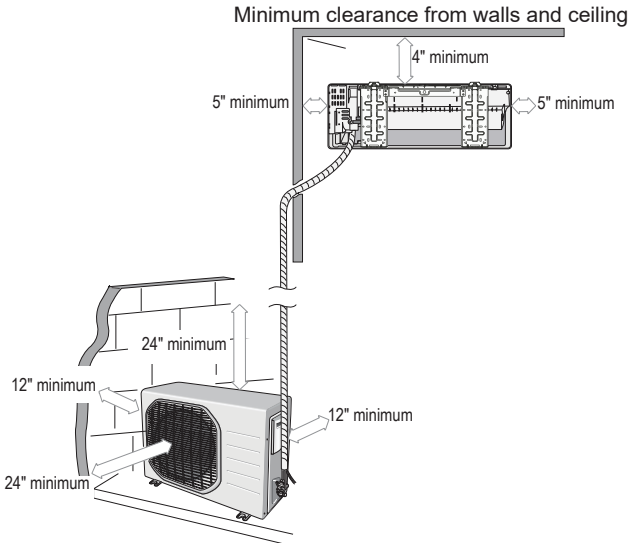
Unit: inches



IMPORTANT - This product has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions. **Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.**

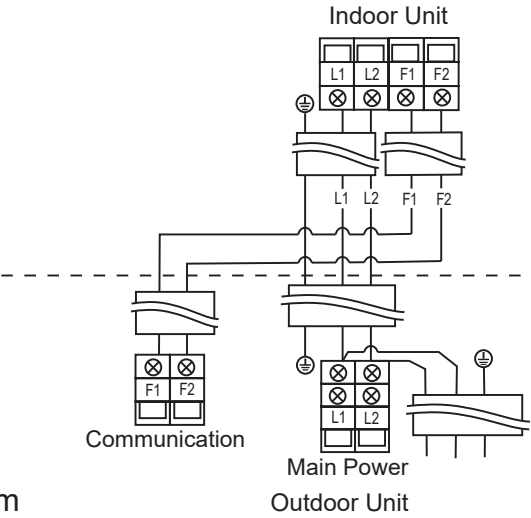


For reference only. Always refer to installation manual for complete details.



(See installation manual for full details. Be aware of national, state, and local codes)

Basic power and communication wiring between indoor and outdoor units



General Wi-Fi Control Information

• Allows control of system on a local network via Wi-Fi or through the internet when outside of home/office with Samsung's "Smart Home" app (available in Android and Apple app stores).

Wi-Fi Control Features

• Basic control and monitoring of: power, mode, set temperature, room temperature, fan speed, and louver swing.

• Timer ON and OFF feature allows scheduling of power ON and power OFF events on specific days at specific times.

• "My Wind" functions allows the user to save common air conditioner control configurations for quick and easy system operation (mode, set temperature, fan speed, and louver swing).

• Air filter reminder option will display hours of fan operation since last filter reminder reset.

• Optional filter reminder with four reminder intervals (180, 300, 500, and 700 hours of fan operation).

• Error notification

• System energy consumption history and adjustable threshold notification viewable with mobile app

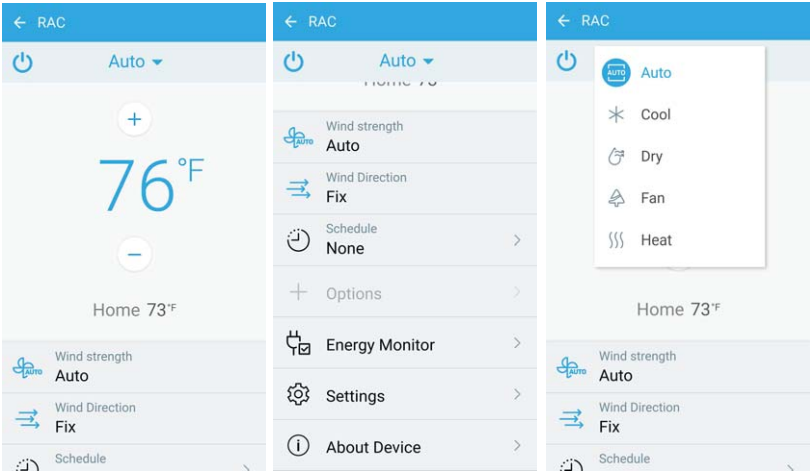


Wi-Fi Control Specifications

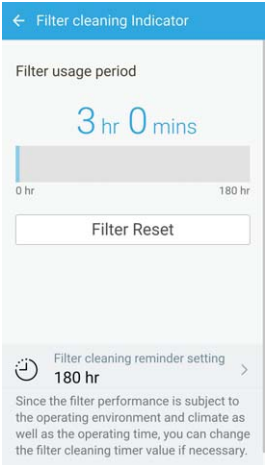
• Samsung's "Smart Home" app can monitor and control an unlimited quantity indoor units.

• A network with Wi-Fi connectivity is required to use the Wi-Fi adapter. Wi-Fi-direct control is not possible.

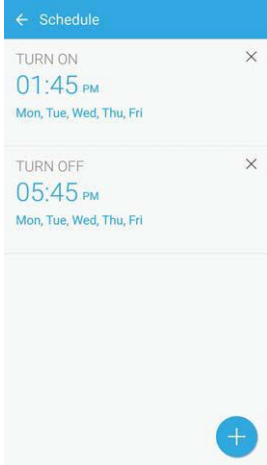
Samsung "Smart Home" App Examples



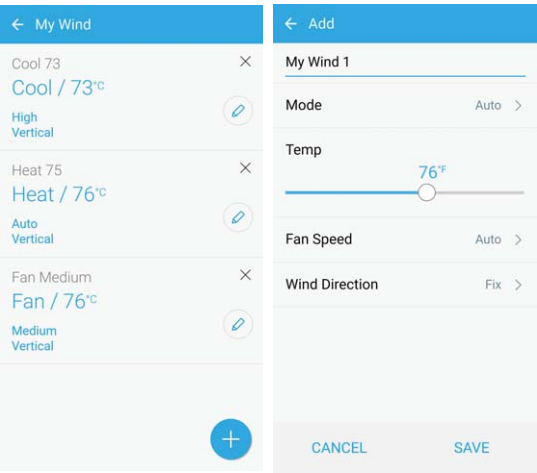
Main control page



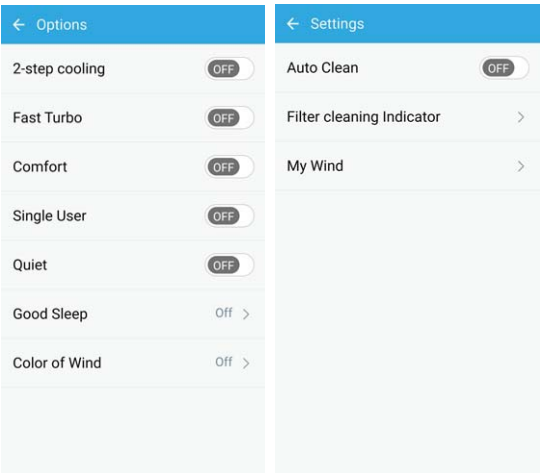
Filter reminder setting page



Timer setting page example



"My Wind" settings page



Options and settings pages



Energy usage page