TECHNICAL CATALOGUE

HITACHI

air Home 600

ROOM AIR CONDITIONER
SPLIT TYPE
GJ SERIES

MODELS

RAK-GJ09PHAA, RAC-GJ09WHAA
RAK-GJ12PHAA, RAC-GJ12WHAA
RAK-GJ15PHAA, RAC-GJ15WHAA
RAK-GJ18PHAA, RAC-GJ18WHAA
RAK-GJ24PHAA, RAC-GJ24WHAA

INDOOR UNIT

RAK-GJ09PHAA
RAK-GJ12PHAA
RAK-GJ15PHAA
RAK-GJ18PHAA
RAK-GJ24PHAA

OUTDOOR UNIT

RAC-GJ09WHAA
RAC-GJ12WHAA
RAC-GJ15WHAA
RAC-GJ18WHAA
RAC-GJ24WHAA

Cooling & Heating

HITACHI

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Whilst every effort is made to ensure that all dimensions and specifications are correct, any printers' error not rectified are outside the control of HITACHI, who cannot be held responsible for the same

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1 SPECIFICATIONS

1.1. WALL TYPE (RAK-GJ09PHAA, RAC-GJ09WHAA, RAK-GJ12PHAA, RAC-GJ12WHAA)

Indoor Model No			RAK-GJ09PHAA	RAK-GJ12PHAA
Outdoor Model No			RAC-GJ09WHAA	RAC-GJ12WHAA
Rated Performance	System Type		Heat Pump	Heat Pump
	Rated Cooling Capacity	BTU/h	9000	12000
	Cooling Capacity (Min-Max)	BTU/h	4500~10500	5000-13600
	Rated Heating Capacity	BTU/h	11000	14500
	Heating Capacity (Min-Max)	BTU/h	3800~15000	5500-18000
	EER2		15.0	13.0
	SEER2		23.0	20.0
	HSPF2		11.4	11.1
	COP at 47°F		3.80	3.80
	COP at 17°F (Normal Peak)		2.20	2.50
	COP at 5°F (Normal Peak)		1.80	1.80
	min Heating Capacity at +5 ^{O}F (-15 ^{O}C)	BTU/h	2200	3200
	max Heating Capacity at +5^{O}F (-15^{O}C)	BTU/h	11000	14500
	min Heating Capacity at -4^{O}F (-20^{O}C)	BTU/h	2000	3000
	max Heating Capacity at -4^{O}F (-20^{O}C)	BTU/h	9000	11200
	min Heating Capacity at -13^{O}F (-25^{O}C)	BTU/h	1300	2800
	max Heating Capacity at -13^{O}F (-25^{O}C)	BTU/h	7200	8800
	Moisture Removal	l/h	1.71	1.60
Electrical Data	Rated Voltage	V-Ph-Hz	208~230V - 1P- 60Hz	208~230V - 1P- 60Hz
	Rated Cooling Current	Amps	2.90	4.05
	Rated Heating Current	Amps	4.10	4.88
	MCA	Amps	12	14
	MOP	Amps	20	25
Indoor Unit	Set Temp Range	^{O}F (^{O}C)	60.8~89.6 (16~32)	60.8~89.6 (16~32)
	Cooling Airflow (HH/H/M/L/SL)	CFM	370/360/324/235/147	415/400/311/177/107
	Heating Airflow (HH/H/M/L/SL)	CFM	382/294/265/206/147	457/454/338/251/154
	Sound Pressure Level (H/M/S/SL)	dB(A)	44/42/40/36/29	46/43/40/35/27
	Unit Dimension (WxHxD)	inch (mm)	37.40x11.57x9.25 (950 x 294 x 235)	37.40x11.57x9.06 (950x294x230)
	Packaging Dimension (WxHxD)	inch (mm)	39.65x12.04x14.21 (1008x306x361)	39.65x12.04x14.21 (1008x306x361)
	Net / Gross Weight	lbs (kg)	24.3/27.6 / (11.0/12.5)	24.3/27.6 / (11.0/12.5)

SPECIFICATIONS

Outdoor Unit	Operation Range - Cooling	^{O}F (^{O}C)	-0.4 ~114.8 (-18 ~ 46)	-0.4 ~114.8 (-18 ~ 46)
	Operation Range - Heating	^{O}F (^{O}C)	-13 ~75.2 (-25~24.0)	-13 ~75.2 (-25~24.0)
	Refrigerant		R32	R32
	Refrigerant Charge	oz (Kg)	31.74(0.9)	39.15（1.11）
	Sound Pressure Level (High)	dB(A)	51	52
	Unit Dimension (WxHxD)	inch (mm)	29.53x22.44x11.02 (750x570x280)	33.46x25.59x11.73 (850x650x298)
	Packaging Dimension (WxHxD)	Inch (mm)	35.98x24.80x15.59 (914x630x396)	39.68x27.16x15.90 (1008x690x404)
	Net / Gross Weight	lbs (kg)	75.0/80.5 (34.0/36.5)	91.0/97.5 (41.0/44.0)
Piping	Max Total Piping Length	Ft (m)	82.0ft (25)	82.0ft (25)
	Max Total Piping Height	Ft (m)	49.2ft (15)	49.2ft (15)
	Piping Connection - Liquid	inch	1/4	1/4
	Piping Connection - Gas	inch	3/8	3/8
	Piping Connection - Drain	inch	5/8	5/8

SPECIFICATIONS

1.2. WALL TYPE (RAK-GJ15PHAA, RAC-GJ15WHAA, RAK-GJ18PHAA, RAC-GJ18WHAA, RAK-GJ24PHAA, RAC-GJ24WHAA)

Indoor Model No			RAK-GJ15PHAA	RAK-GJ18PHAA	RAK-GJ24PHAA
Outdoor Model No			RAC-GJ15WHAA	RAC-GJ18WHAA	RAC-GJ24WHAA
Rated Performance	System Type		Heat Pump	Heat Pump	Heat Pump
	Rated Cooling Capacity	BTU/h	15000	18000	22000
	Cooling Capacity (Min-Max)	BTU/h	5150-16500	5800-22500	8000-26000
	Rated Heating Capacity	BTU/h	18000	21600	25200
	Heating Capacity (Min-Max)	BTU/h	5500-19000	6600-26000	7800-29500
	EER2		13	12.5	13.0
	SEER2		22	20.0	21.0
	HSPF2		11	11.5	11.0
	COP at 47°F		3.15	3.80	3.70
	COP at 17°F (Normal Peak)		2.5	3.00	2.40
	COP at 5°F (Normal Peak)		2.25	2.30	1.80
	min Heating Capacity at +5°F (-15°C)		4700	6000	6000
	max Heating Capacity at +5°F (-15°C)	BTU/h	15000	21600	24700
	min Heating Capacity at -4°F (-20°C)		3500	4800	5000
	max Heating Capacity at -4°F (-20°C)	BTU/h	13400	17200	20000
	min Heating Capacity at -13°F (-25°C)		2780	4300	5000
	max Heating Capacity at -13°F (-25°C)	BTU/h	13400	12900	15000
	Moisture Removal	l/h	2.1	2.0	4.0
Electrical Data	Rated Voltage	V-Ph-Hz	208~230V - 1P- 60Hz	208~230V - 1P- 60Hz	208~230V - 1P- 60Hz
	Rated Cooling Current	Amps	5.55	6.10	7.40
	Rated Heating Current	Amps	8.07	7.30	8.80
	MCA	Amps	16	20	20
	MOP	Amps	25	32	32
Indoor Unit	Set Temp Range	°F (°C)	60.8~89.6 (16~32)	60.8~89.6 (16~32)	60.8~89.6 (16~32)
	Cooling Airflow (HH/H/M/L/SL)	CFM	470/440/390/310/260	572/498/434/364/270	600/580/500/400/300
	Heating Airflow (HH/H/M/L/SL)	CFM	460/370/360/260/220	653/608/533/392/300	700/700/580/450/350
	Sound Pressure Level (H/M/S/SL)-Cool	dB(A)	47/45/42/36/32	49/49/45/42/35	52/52/47/43/36
	Sound Pressure Level (H/M/S/SL)-Heat	dB(A)	48/46/42/36/32	49/49/45/42/35	52/52/47/43/36
	Unit Dimension (WxHxD)	inch (mm)	37.40x11.57x9.06 (950x294x230)	41.34x11.57x10.04 (1050x294x255)	43.3x11.8x10.2 (1100x300x260)
	Packaging Dimension (WxHxD)	inch (mm)	39.65x12.04x14.21 (1008x306x361)	43.70x14.21x12.83 (1110x361x326)	45.47x12.99x14.37 (1155 x330 x365)
	Net / Gross Weight	lbs (kg)	24.3 (11.0) / 27.6 (12.5)	30.07 (14.0)/ 37.48 (17.0)	30.07 (14.0) / 37.48 (17.0)

SPECIFICATIONS

Outdoor Unit	Operation Range - Cooling	^{O}F (^{O}C)	-0.4 ~114.8 (-18 ~ 46)	-0.4 ~114.8 (-18 ~ 46)	-0.4 ~114.8 (-18 ~ 46)
	Operation Range - Heating	^{O}F (^{O}C)	-13 ~75.2 (-25~24.0)	-13 ~75.2 (-25~24.0)	-13 ~75.2 (-25~24.0)
	Refrigerant		R32	R32	R32
	Refrigerant Charge	oz (Kg)	44.09 (1.25)	57.50(1.63)	65.95(1.87)
	Sound Pressure Level (High)-Cooling	dB(A)	52	53	53
	Sound Pressure Level (High)-Heating	dB(A)	52	54	54
	Unit Dimension (WxHxD)	inch (mm)	33.46x31.50x11.73 (850x800x298)	37.2x37.4x14.6 (945X950X370)	37.2x37.4x14.6 (945X950X370)
	Packaging Dimension (WxHxD)	Inch (mm)	39.60x33.38x15.90 1006x848x404	43.93x43.30x20.47 (1116x1100x520)	43.93x43.30x20.47 (1116x1100x520)
	Net / Gross Weight	lbs (kg)	103.6 (47.0) / 114.6 (52.0)	163 (74) / 172 (78)	163 (74) / 172 (78)
Piping	Max Total Piping Length	Ft (m)	98.4 (30)	98.4ft (30)	98.4ft (30)
	Max Total Piping Height	Ft (m)	65.6 (20)	66(20)	66(20)
	Piping Connection - Liquid	inch	1/4	1/4	1/4
	Piping Connection - Gas	inch	1/2	1/2	5/8
	Piping Connection - Drain	inch	5/8	5/8	5/8

NOTE:

1. Capacity and seasonal performance data (SEER/HSPF) are based on AHRI 210-240. The norminal heating and cooling capacity is the combined capacity of the HITACHI Split system (Indoor + Outdoor Unit).

Operation Conditions		**Cooling**	**Heating**
Indoor Air Inlet Temperature	**dB**	80 °F	70 °F
	WB	67 °F	
Outdoor Air Inlet Temperature	**dB**	95 °F	47 °F
	WB		43 °F
Piping Length: 16.4f (5.0 meters); **Piping Lift**: 0f (0 meter) **dB**: Dry Bulb; **WB**: Wet Bulb			

2. The Sound Pressure Level is based on the following conditions:

INDOOR

- 2.62ft (0.8 meter) beneath indoor height center
- 3.28ft (1 meter) from Discharge grille

OUTDOOR

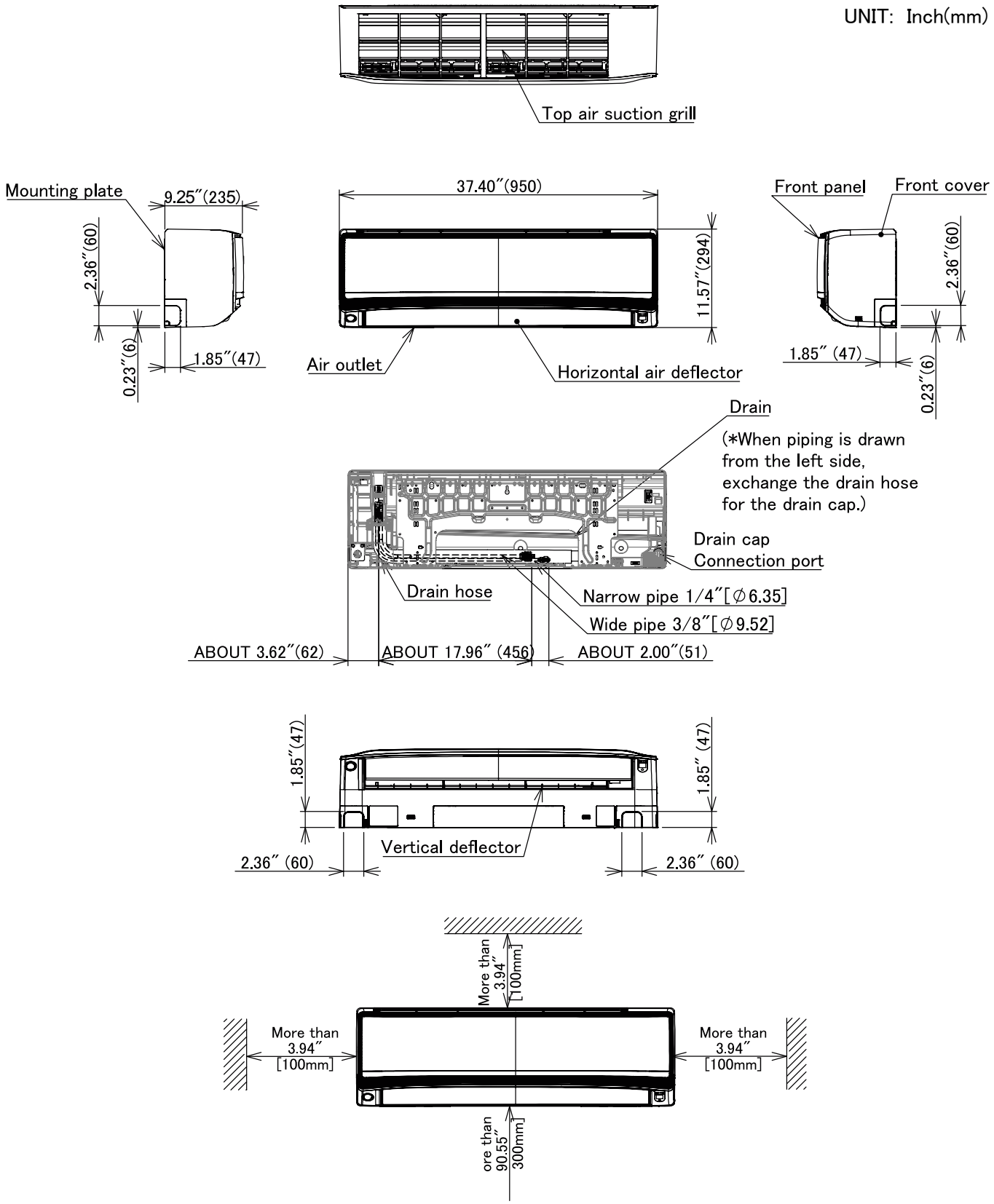
–3.28ft (1 meter) from the unit front surface and 3.28ft (1 meter) from floor level.

The above data was measured in an anechoic chamber. Please take into consideration reflected sound of your specific site.

2 DIMENSIONAL DATA

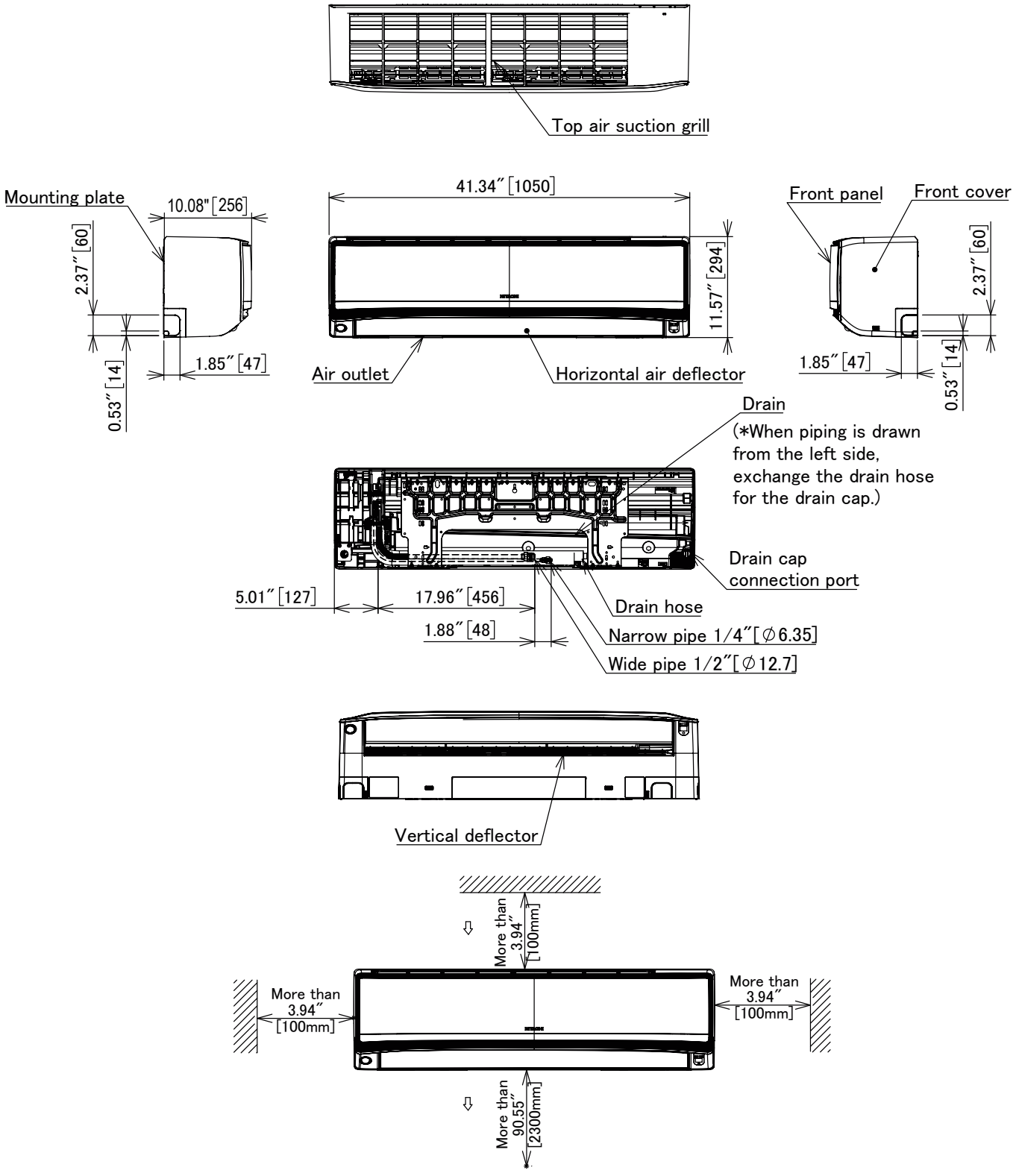
2.1. INDOOR WALL TYPE: RAK-GJ09PHAA , RAK-GJ12PHAA, RAK-GJ15PHAA

UNIT: Inch(mm)



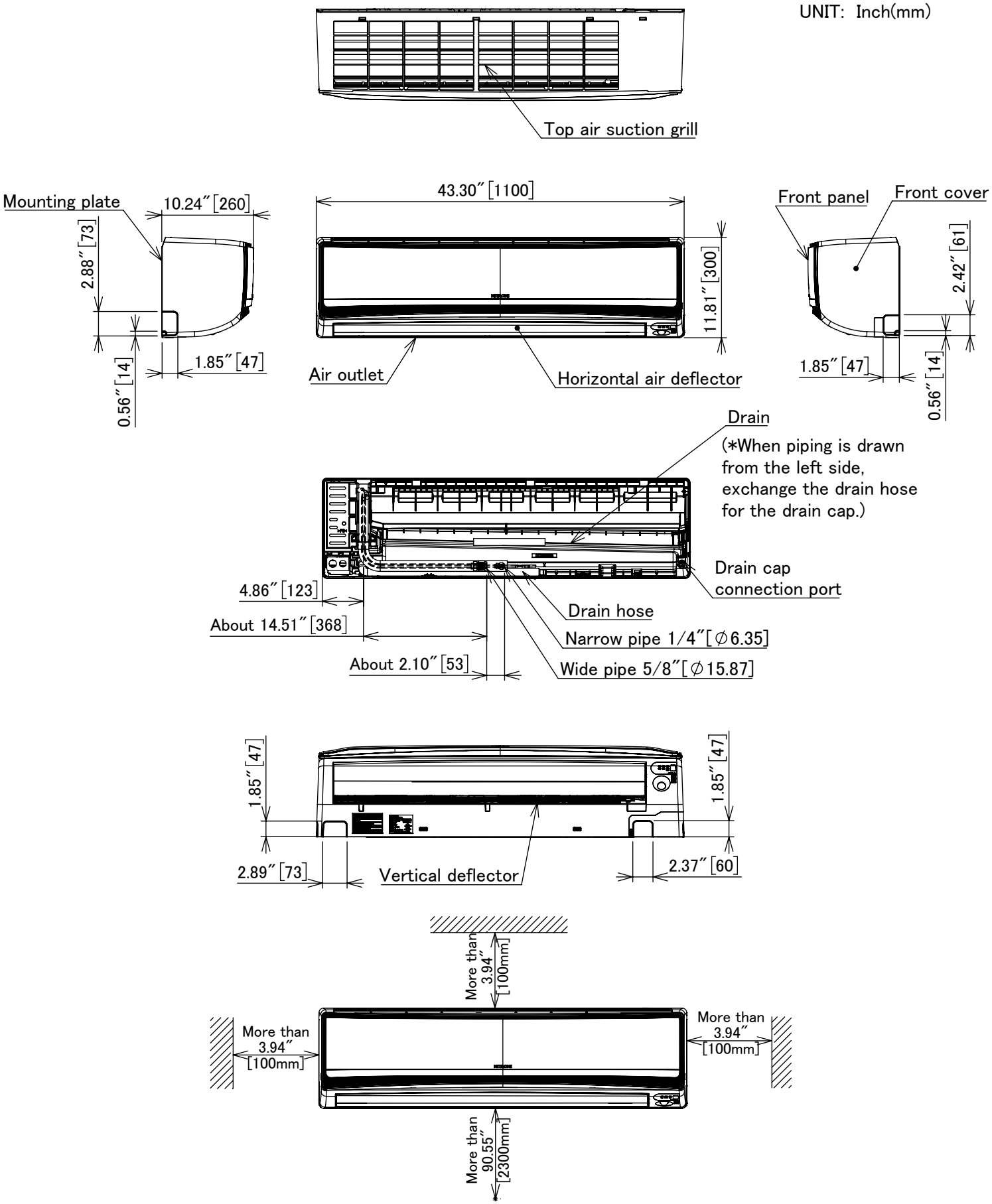
2.2. INDOOR WALL TYPE: RAK-GJ18PHAA

UNIT: Inch(mm)



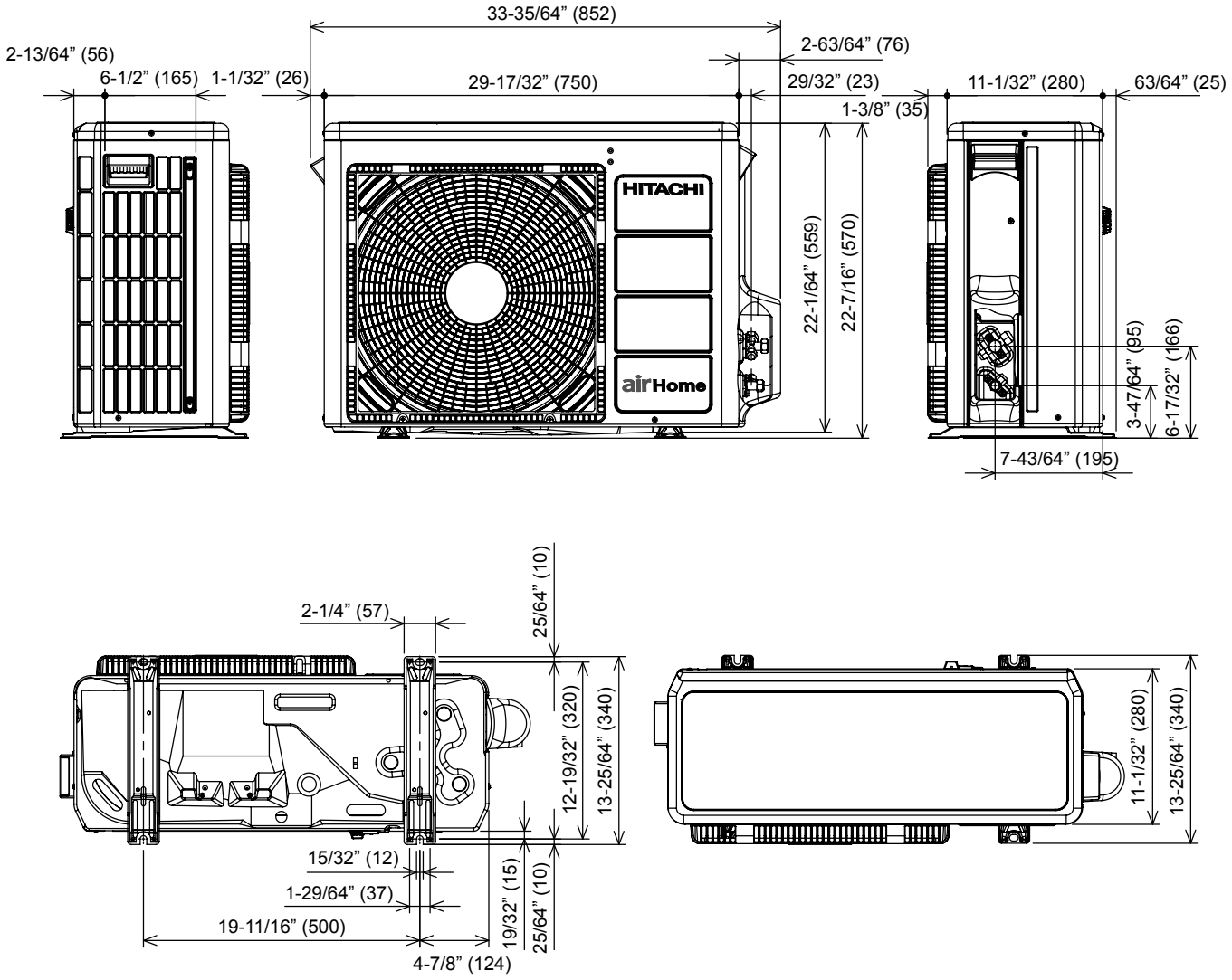
2.3. INDOOR WALL TYPE: RAK-GJ24PHAA

UNIT: Inch(mm)



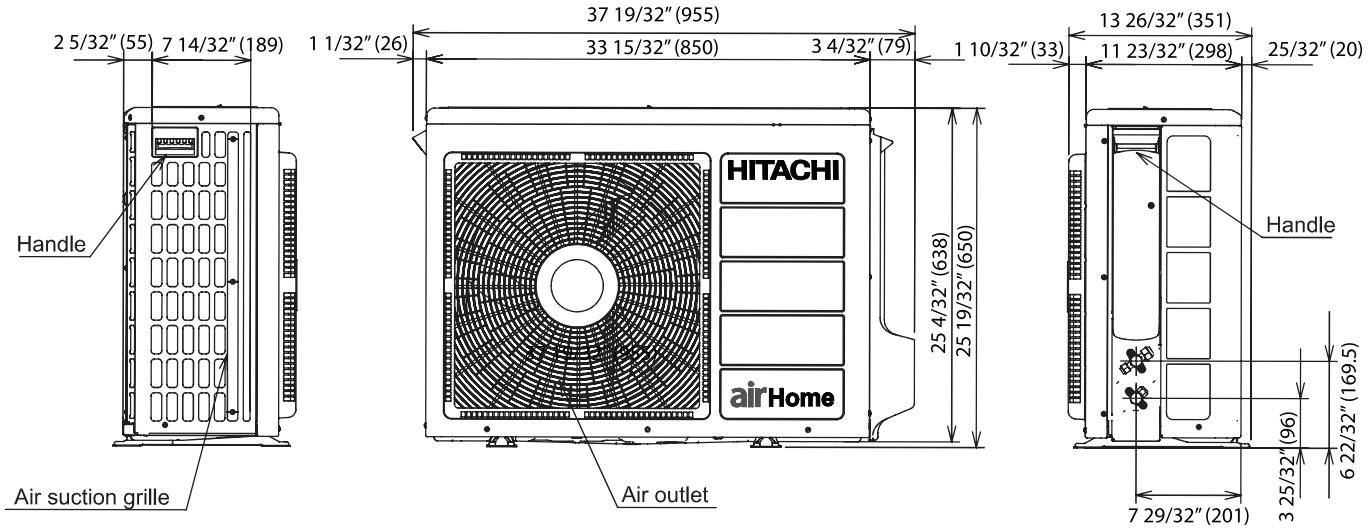
2.4 OUTDOOR: RAC-GJ09WHAA

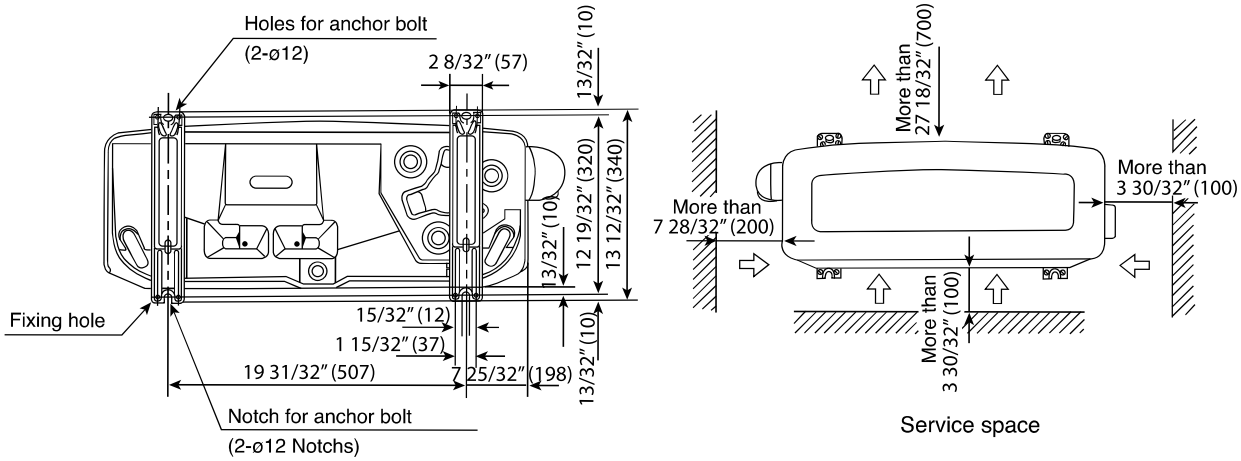
UNIT: Inch(mm)



2.5 OUTDOOR: RAC-GJ12WHAA

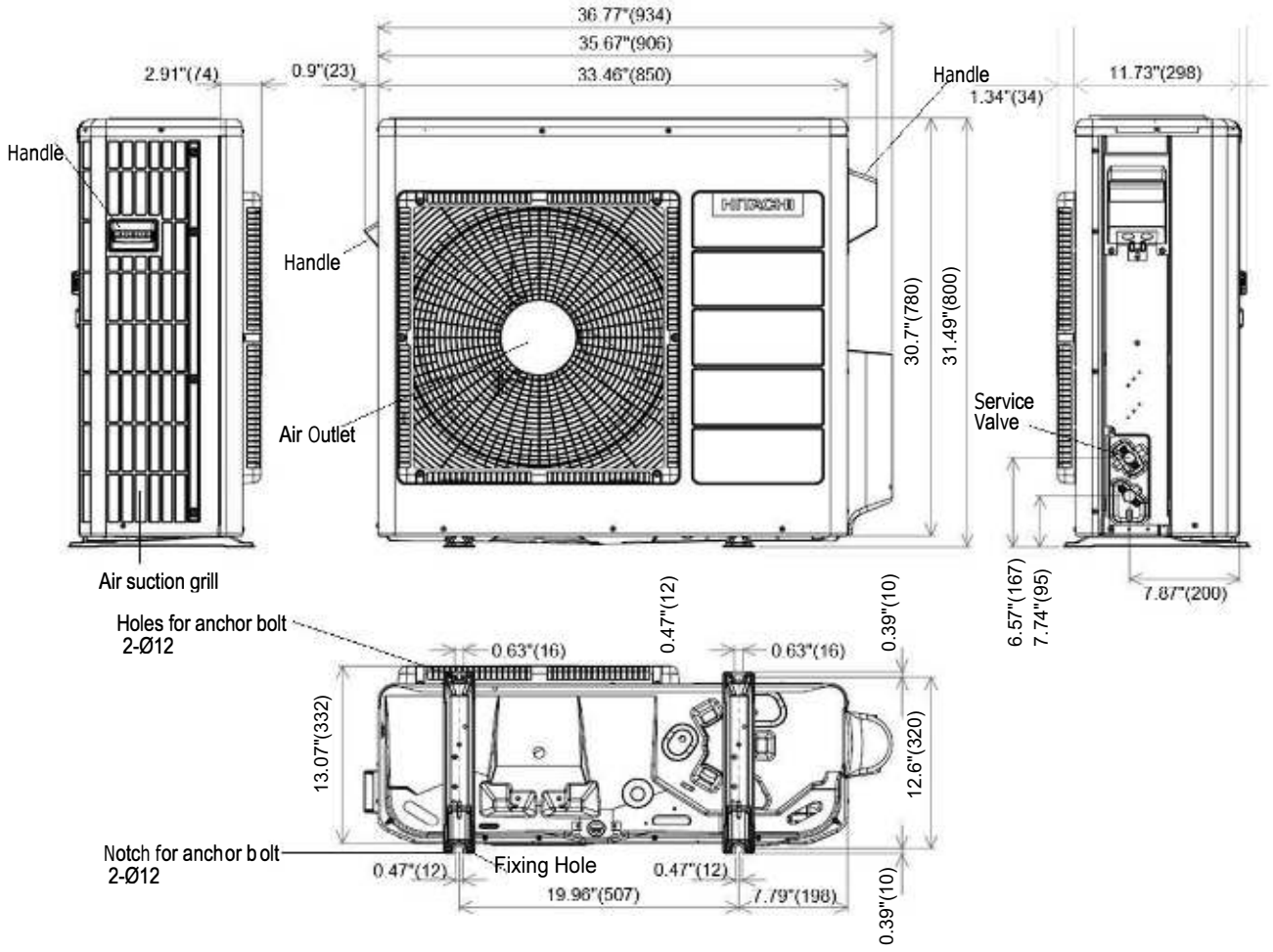
UNIT: Inch(mm)

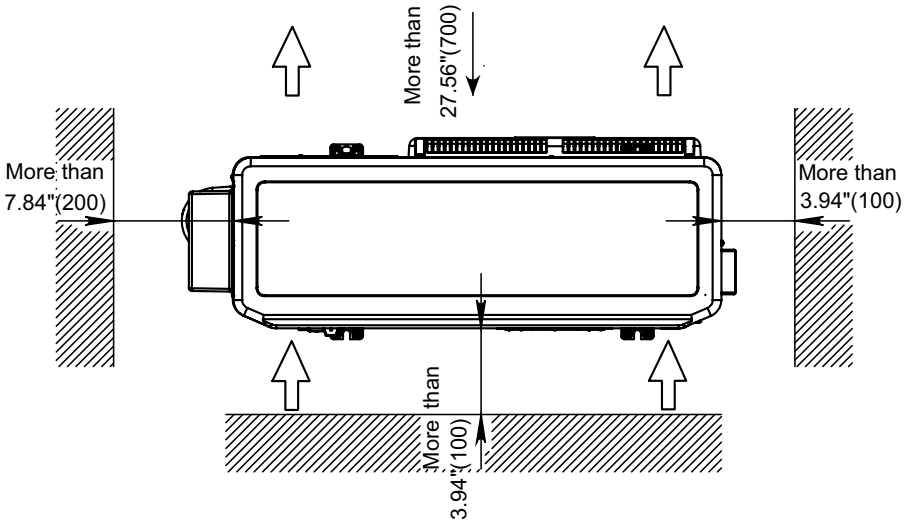




2.6 OUTDOOR: RAC-GJ15WHAA

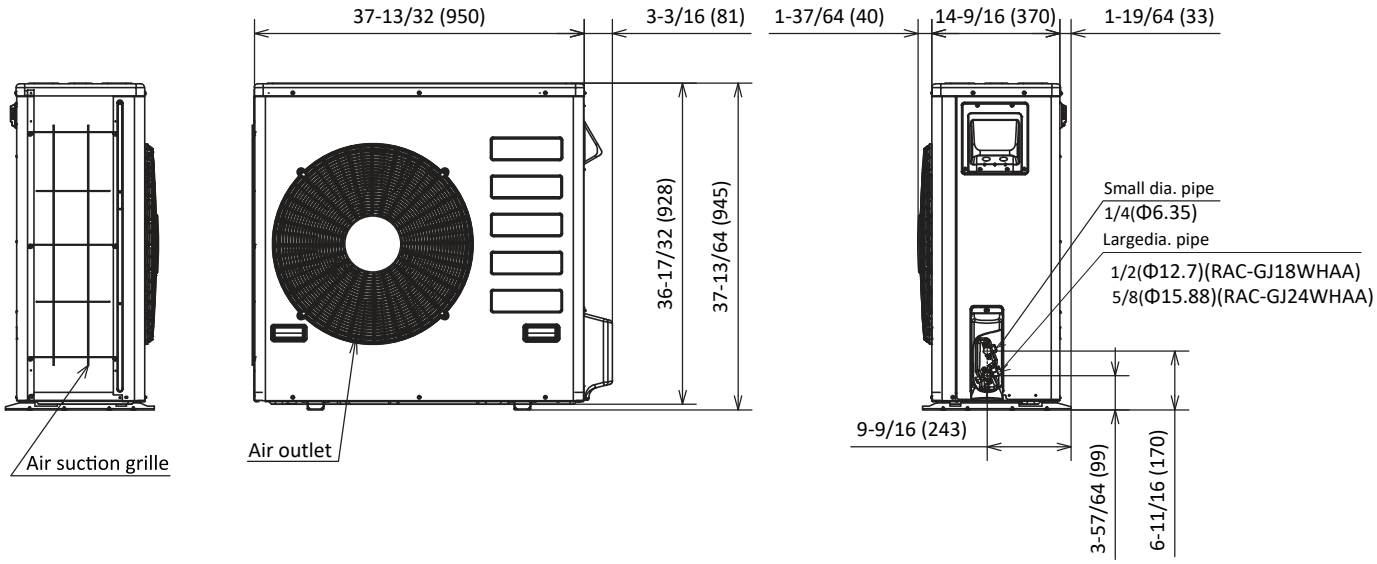
Unit: Inch (mm)

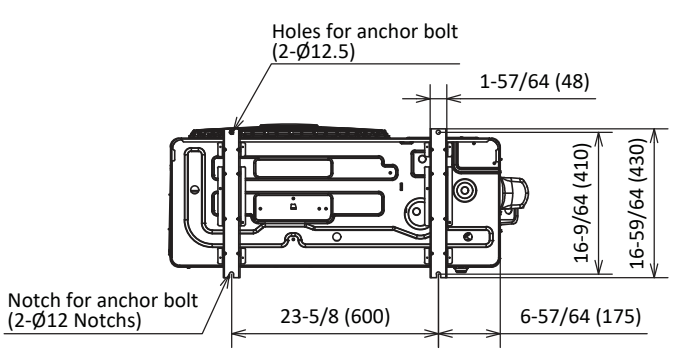


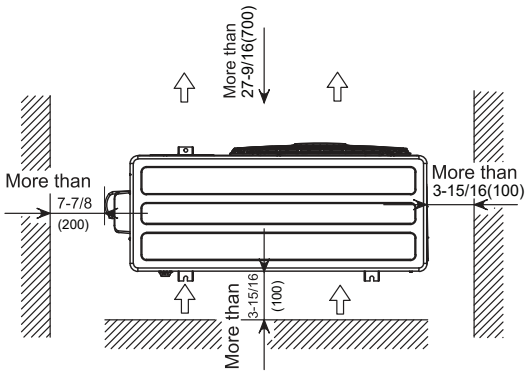


Service space

2.7 OUTDOOR: RAC-GJ18WHAA / RAC-GJ24WHAA







Service space

3 CAPACITIES TABLE

3.1. CAPACITY CHARACTERISTIC CURVES

The following charts show the characteristics of outdoor unit capacity, which corresponds with the operating ambient temperature of outdoor unit.

Conditions:

①Pipe length / height difference:16.4ft (5m) / 0ft (0m) ③Capacity loss due to white frost and defrost operation is not included.

②Indoor fan speed at High mode

3.1.1. RAK-GJ09PHAA, RAC-GJ09WHAA

COOLING [60Hz, 230V]

INDOOR		OUTDOOR TEMPERATURE (°FDW)																				
EWB	EDB	14			70			81			90			95			104			110		
°F	°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
54	64	5,172	4,405	247	8,460	8,483	424	7,830	7,831	500	7,380	7,423	552	7,110	7,097	576	6,660	6,689	618	6,390	6,362	642
57	68	5,172	4,405	247	9,090	8,483	424	8,460	7,912	506	7,920	7,423	558	7,650	7,178	582	7,110	6,689	624	6,840	6,444	654
61	72	5,172	4,687	251	9,720	8,483	430	9,000	7,912	512	8,460	7,423	564	8,190	7,178	594	7,650	6,689	636	7,380	6,444	660
64	77	5,545	5,026	255	10,350	9,217	435	9,540	8,565	517	9,000	8,075	570	8,640	7,749	594	8,100	7,260	642	7,740	6,933	666
66	81	5,732	5,195	259	10,710	9,707	441	9,900	8,973	523	9,360	8,483	576	9,000	8,157	600	8,460	7,668	642	8,100	7,341	666
72	86	6,355	5,139	259	11,880	9,625	441	10,980	8,891	523	10,350	8,402	582	9,990	8,075	606	9,000	7,831	666	8,370	7,668	702
75	90	6,792	5,139	263	12,690	9,625	446	11,700	8,891	529	11,070	8,402	582	10,620	8,075	612	9,360	7,994	684	8,550	7,912	726

HEATING [60Hz, 230V]

	OUTDOOR TEMPERATURE (°FDW)															
EDB	5		14		17		23		32		47		50		59	
°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
61	11060	1758	12310	1720	13076	1679	12801	1540	12096	1220	11069	721	11816	691	13111	638
64	11030	1774	12280	1736	13038	1704	12758	1572	12048	1255	11035	785	11783	758	13056	713
20	11000	1790	12250	1753	13000	1730	12714	1604	12000	1289	11000	848	11750	826	13000	788
72	10970	1806	12220	1769	12962	1756	12671	1636	11952	1323	10966	911	11717	893	12945	863
75	10940	1822	12190	1785	12924	1781	12627	1668	11904	1358	10931	975	11684	960	12889	938

* Maximum Output values are not based on AHRI test conditions

EWB: Evaporator Wet Bulb temperature (°F)
EDB: Evaporator Dry Bulb temperature (°F)
(°FDB): Outdoor Unit Inlet Air Dry Temperature (°F)

TC: Total Capacity (W)
SHC: Sensible Heating Capacity (W)
PI: Power Input

CAPACITIES TABLE

3.1.2. RAK-GJ12PHAA , RAC-GJ12WHAA

COOLING [60Hz, 230V]

INDOOR		OUTDOOR TEMPERATURE (°FDW)																				
EWB	EDB	14			70			81			90			95			104			110		
°F	°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
54	64	5,914	4,930	326	9,694	9,514	561	8,972	8,782	661	9,840	9,687	849	9,480	9,261	886	8,880	8,729	951	8,520	8,303	988
57	68	5,914	4,930	326	10,416	9,514	561	9,694	8,874	669	10,560	9,687	858	10,200	9,368	895	9,480	8,729	960	9,120	8,410	1,006
61	72	5,914	5,246	331	11,138	9,514	568	10,313	8,874	676	11,280	9,687	868	10,920	9,368	914	10,200	8,729	978	9,840	8,410	1,015
64	77	6,341	5,625	336	11,859	10,337	575	10,931	9,605	684	12,000	10,539	877	11,520	10,113	914	10,800	9,474	988	10,320	9,048	1,025
66	81	6,555	5,815	341	12,272	10,886	583	11,344	10,063	692	12,480	11,071	886	12,000	10,645	923	11,280	10,006	988	10,800	9,581	1,025
72	86	7,268	5,752	341	13,613	10,795	583	12,581	9,971	692	13,800	10,964	895	13,320	10,539	932	12,000	10,219	1,025	11,160	10,006	1,080
75	90	7,766	5,752	347	14,541	10,795	590	13,406	9,971	700	14,760	10,964	895	14,160	10,539	941	12,480	10,432	1,052	11,400	10,326	1,117

HEATING [60Hz, 230V]

INDOOR	OUTDOOR TEMPERATURE (°FDW)															
EDB	5		14		17		23		32		47		50		59	
°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
61	14560	2368	15998	2118	16876	1949	16558	1822	15746	1531	14569	1073	15429	916	16911	650
64	14530	2384	15968	2134	16838	1974	16515	1854	15698	1566	14535	1137	15396	983	16856	725
20	14500	2400	15938	2150	16800	2000	16471	1886	15650	1600	14500	1200	15363	1050	16800	800
72	14470	2416	15908	2166	16762	2026	16428	1918	15602	1634	14466	1263	15330	1117	16745	875
75	14440	2432	15878	2182	16724	2051	16384	1950	15554	1669	14431	1327	15297	1184	16689	950

* Maximum Output values are not based on AHRI test conditions

EWB: Evaporator Wet Bulb temperature (°F)
EDB: Evaporator Dry Bulb temperature (°F)
(°FDB): Outdoor Unit Inlet Air Dry Temperature (°F)

TC: Total Capacity (W)
SHC: Sensible Heating Capacity (W)
PI: Power Input

CAPACITIES TABLE

3.1.3. RAK-GJ18PHAA , RAC-GJ18WHAA

COOLING [60Hz, 230V]

INDOOR		OUTDOOR TEMPERATURE (°FDW)																				
EWB	EDB	14			70			81			90			95			104			110		
°F	°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
54	64	12625	10085	697	15252	14343	882	14116	13240	1040	14760	13923	1274	14220	13311	1330	13320	12546	1427	12780	11934	1482
57	68	12625	10085	697	16388	14343	882	15252	13378	1052	15840	13923	1288	15300	13464	1343	14220	12546	1440	13680	12087	1510
61	72	12625	10732	708	17523	14343	894	16225	13378	1064	16920	13923	1302	16380	13464	1371	15300	12546	1468	14760	12087	1524
64	77	13538	11507	718	18659	15584	906	17199	14481	1077	18000	15147	1316	17280	14535	1371	16200	13617	1482	15480	13005	1537
66	81	13994	11895	729	19308	16412	917	17848	15171	1089	18720	15912	1330	18000	15300	1385	16920	14382	1482	16200	13770	1537
72	86	15515	11766	729	21417	16274	917	19795	15033	1089	20700	15759	1343	19980	15147	1399	18000	14688	1537	16740	14382	1620
75	90	16580	11766	740	22878	16274	929	21093	15033	1101	22140	15759	1343	21240	15147	1413	18720	14994	1579	17100	14841	1676

HEATING [60Hz, 230V]

INDOOR	OUTDOOR TEMPERATURE (°FDW)															
EDB	5		14		17		23		32		47		50		59	
°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
61	21660	2868	24285	2868	25876	2849	25287	2665	23796	2231	21669	1573	23241	1566	25911	1550
64	21630	2884	24255	2884	25838	2874	25244	2697	23748	2266	21635	1637	23208	1633	25856	1625
68	21600	2900	24225	2900	25800	2900	25200	2729	23700	2300	21600	1700	23175	1700	25800	1700
72	21570	2916	24195	2916	25762	2926	25157	2761	23652	2334	21566	1763	23142	1767	25745	1775
75	21540	2932	24165	2932	25724	2951	25113	2792	23604	2369	21531	1827	23109	1834	25689	1850

* Maximum Output values are not based on AHRI test conditions

EWB: Evaporator Wet Bulb temperature (°F)
EDB: Evaporator Dry Bulb temperature (°F)
(°FDB): Outdoor Unit Inlet Air Dry Temperature (°F)

TC: Total Capacity (W)
SHC: Sensible Heating Capacity (W)
PI: Power Input

CAPACITIES TABLE

3.1.4. RAK-GJ24PHAA , RAC-GJ24WHAA

COOLING [60Hz, 230V]

INDOOR		OUTDOOR TEMPERATURE (°FDW)																			
EWB	EDB	14			70			81			90			95			104			110		
°F	°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
54	64	10331	7414	569	18503	15633	1069	17125	14430	1260	18040	15288	1555	17380	14616	1622	16280	13776	1741	15620	13104	1808
57	68	10331	7414	569	19881	15633	1069	18503	14581	1274	19360	15288	1572	18700	14784	1639	17380	13776	1758	16720	13272	1842
61	72	10331	7889	578	21259	15633	1083	19684	14581	1289	20680	15288	1589	20020	14784	1673	18700	13776	1791	18040	13272	1859
64	77	11078	8460	587	22637	16986	1097	20865	15783	1304	22000	16632	1606	21120	15960	1673	19800	14952	1808	18920	14280	1876
66	81	11452	8745	596	23424	17888	1111	21653	16535	1319	22880	17472	1622	22000	16800	1690	20680	15792	1808	19800	15120	1876
72	86	12696	8650	596	25983	17737	1111	24015	16384	1319	25300	17304	1639	24420	16632	1707	22000	16128	1876	20460	15792	1977
75	90	13568	8650	605	27755	17737	1125	25589	16384	1334	27060	17304	1639	25960	16632	1724	22880	16464	1927	20900	16296	2045

HEATING [60Hz, 230V]

INDOOR	OUTDOOR TEMPERATURE (°FDW)															
EDB	5		14		17		23		32		47		50		59	
°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
61	24760	3068	27260	3318	28776	3449	28287	3222	27046	2681	25269	1873	26766	2016	29311	2250
64	24730	3084	27230	3334	28738	3474	28244	3254	26998	2716	25235	1937	26733	2083	29256	2325
68	24700	3100	27200	3350	28700	3500	28200	3286	26950	2750	25200	2000	26700	2150	29200	2400
72	24670	3116	27170	3366	28662	3526	28157	3318	26902	2784	25166	2063	26667	2217	29145	2475
75	24640	3132	27140	3382	28624	3551	28113	3350	26854	2819	25131	2127	26634	2284	29089	2550

* Maximum Output values are not based on AHRI test conditions

EWB: Evaporator Wet Bulb temperature (°F)
EDB: Evaporator Dry Bulb temperature (°F)
(°FDB): Outdoor Unit Inlet Air Dry Temperature (°F)

TC: Total Capacity (W)
SHC: Sensible Heating Capacity (W)
PI: Power Input

3.2. CORRECTION FACTORS ACCORDING TO PIPING LENGTH

Correction Factor for **Cooling Capacity** according to Piping Length

The cooling capacity should be corrected according to the following formula:

CCA = CC x F

CCA: Actual Corrected Cooling Capacity (kcal/h)
CC: Cooling Capacity in the Performance Table (kcal/h)
F: Correction Factor Based on the Equivalent Piping Length

Correction Factor for **Heating Capacity** according to Piping Length

The heating capacity should be corrected according to the following formula:

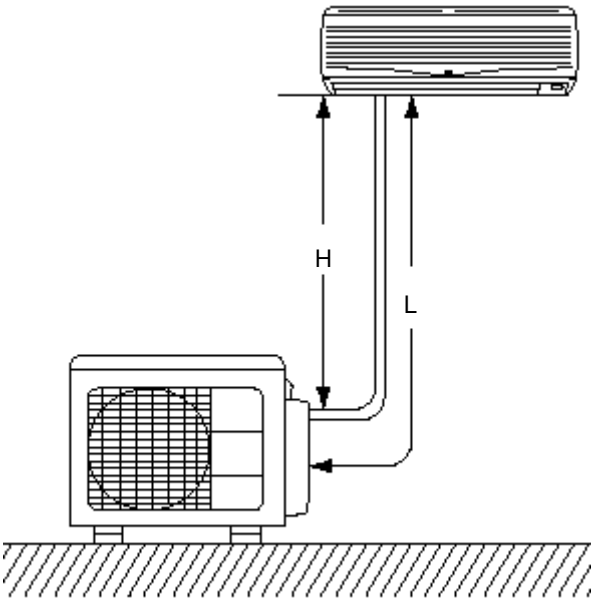
HCA= HC x F

HCA: Actual Corrected Heating Capacity (kcal/h)
HC: Heating Capacity in the Performance Table (kcal/h)
F: Correction Factor Based on the Equivalent Piping Length

The correction factors are shown in the following figure.

Equivalent Piping Length for:

- One 90º Elbow is 0.5m.
- One 180º Curve is 1.5m.



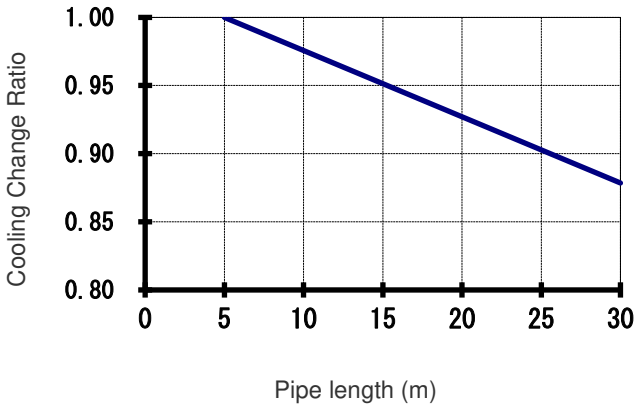
H: Vertical Distance Between Indoor Unit and Outdoor Units in Meters

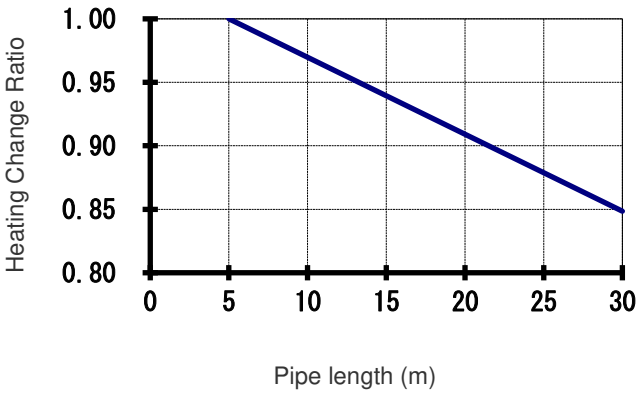
L: Actual One-Way Piping Length Between Indoor Unit and Outdoor Unit in Meters

EL: Equivalent Total Distance Between Indoor Unit and Outdoor Unit in Meters
(Equivalent One-Way Piping Length)

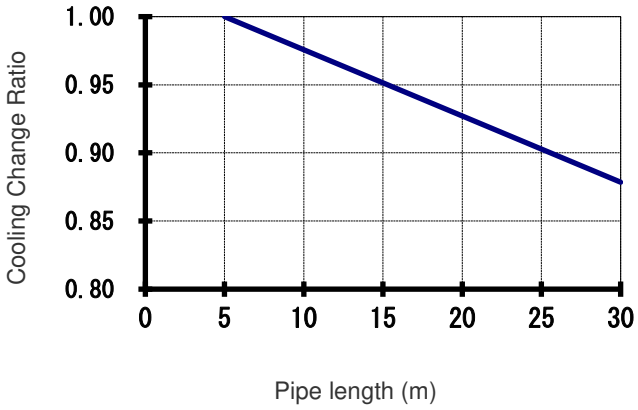
CAPACITIES TABLE

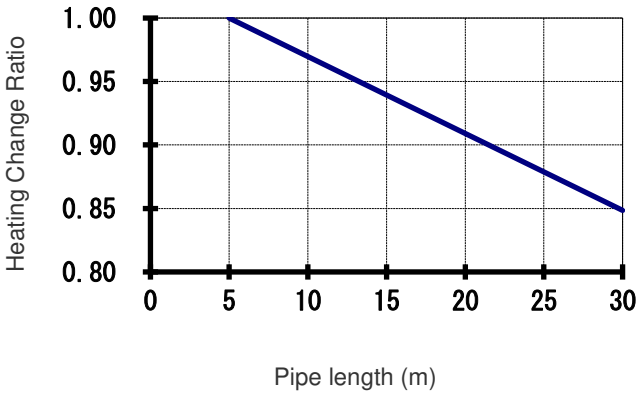
Models : RAC-GJ09WHAA



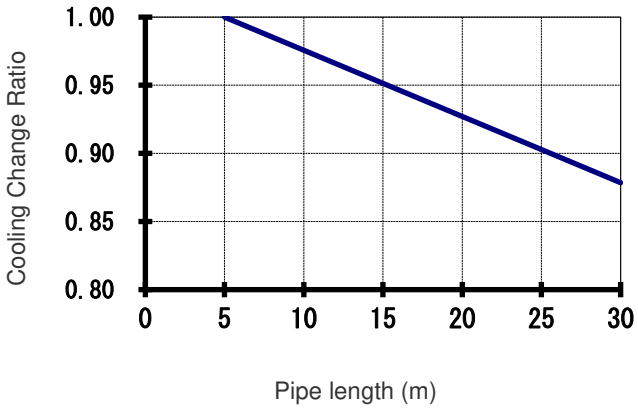


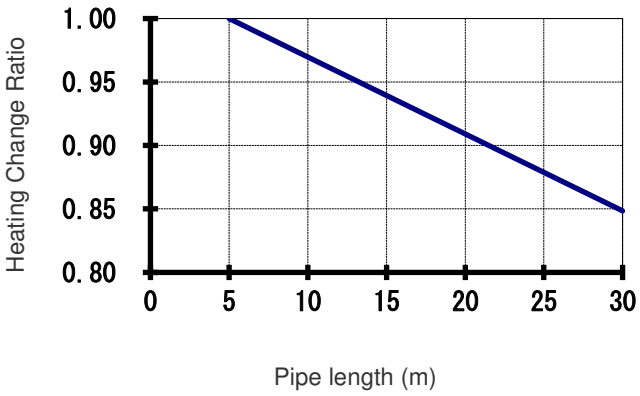
Models : RAC-GJ12WHAA





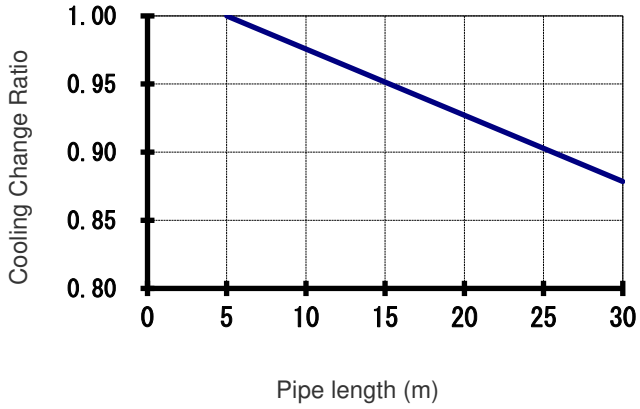
Models : RAC-GJ15WHAA

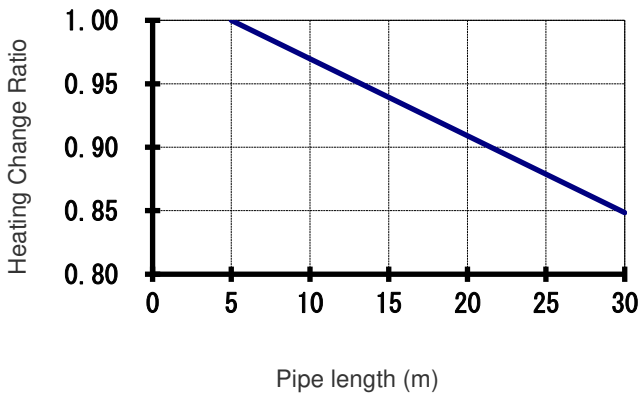




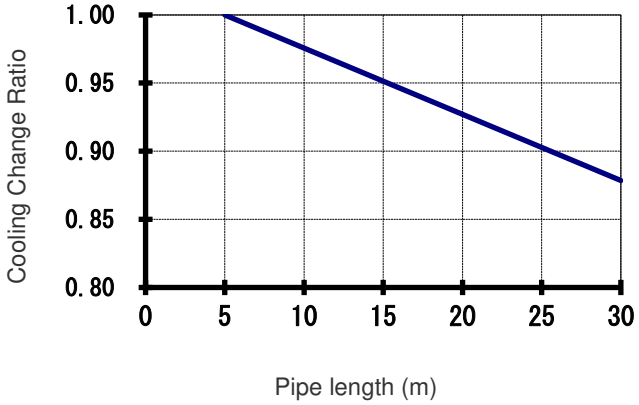
CAPACITIES TABLE

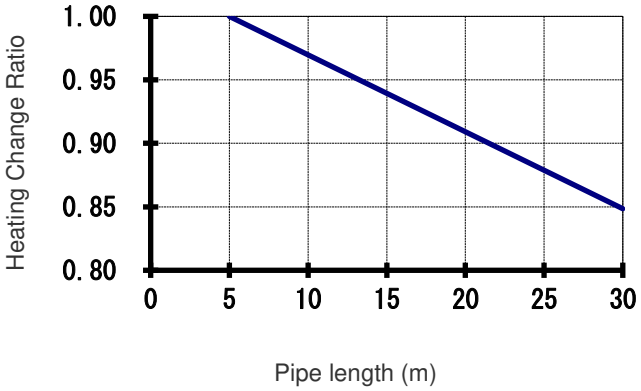
Models : RAC-GJ18WHAA





Models : RAC-GJ24WHAA





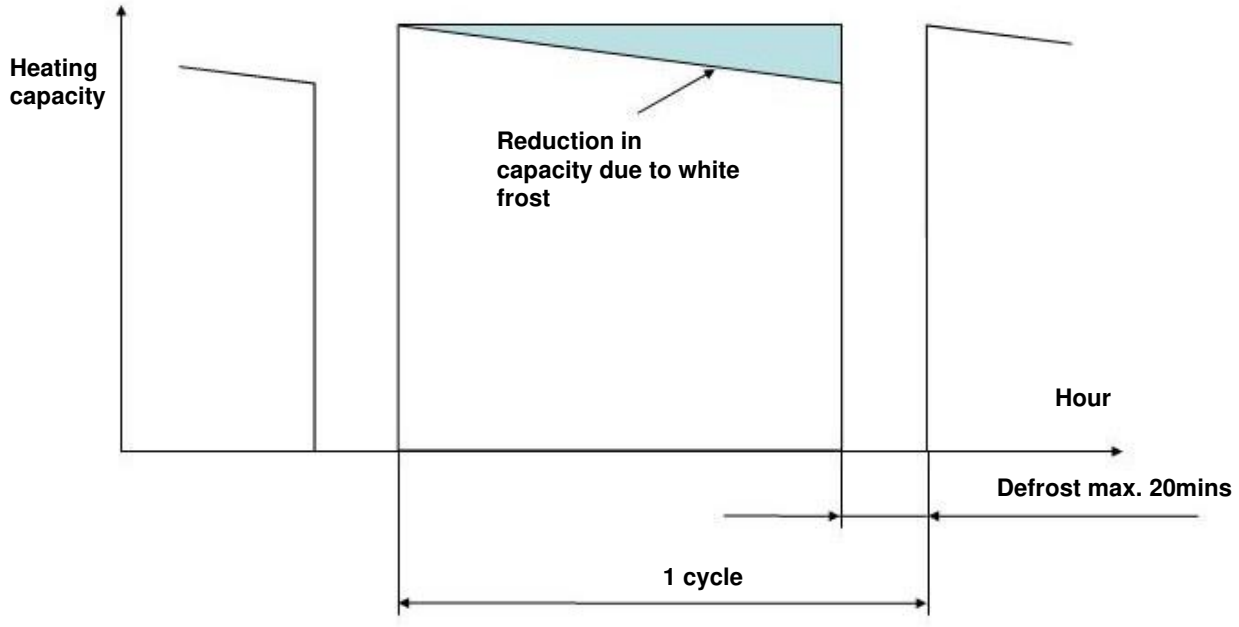
3.3. CORRECTION FACTORS ACCORDING TO DEFROSTING OPERATION

The heating capacity in the preceding paragraph, excludes the condition of the frost or the defrosting operation period. In consideration of the frost or the defrosting operation, the heating capacity is corrected by the equation below.

Corrected heating capacity = Defrost Correction factor x unit capacity

OUTDOOR TEMPERATURE (°FDB)	5	14	19.4	23	32	44.6	50	56
Correction factor (humidity rate85% RH)	0.95	0.95	0.89	0.85	0.81	1.0	1.0	1.0

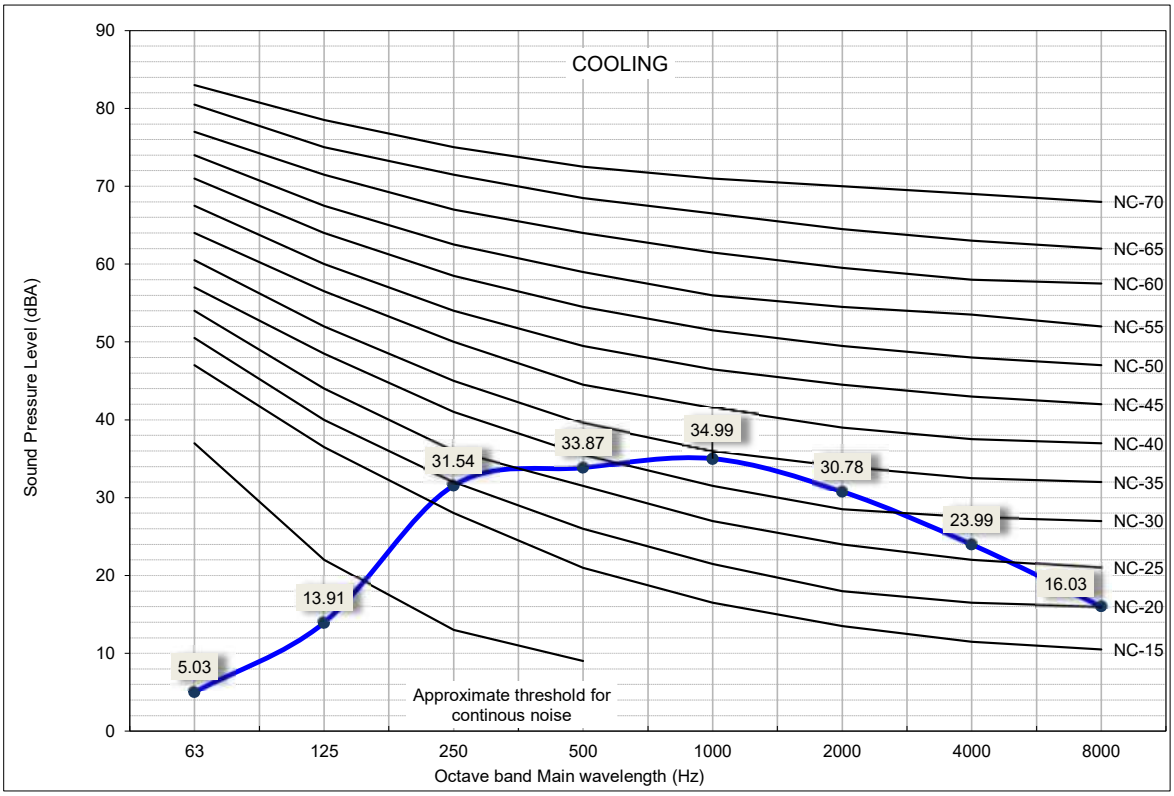
Correction Factor

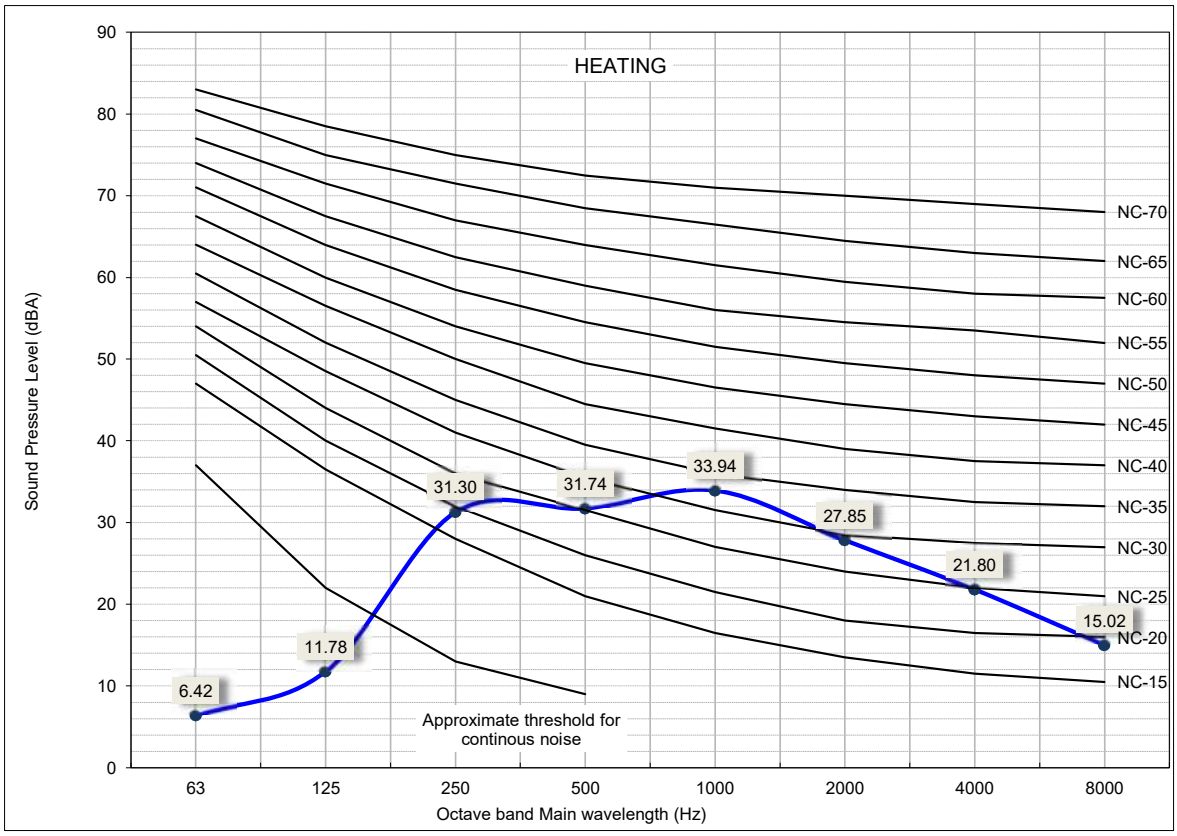


NOTE:
The correction factor is not valid for special conditions such as snowfall or operation in a transitional period.

4 SOUND DATA

4.1. RAK-GJ09PHAA



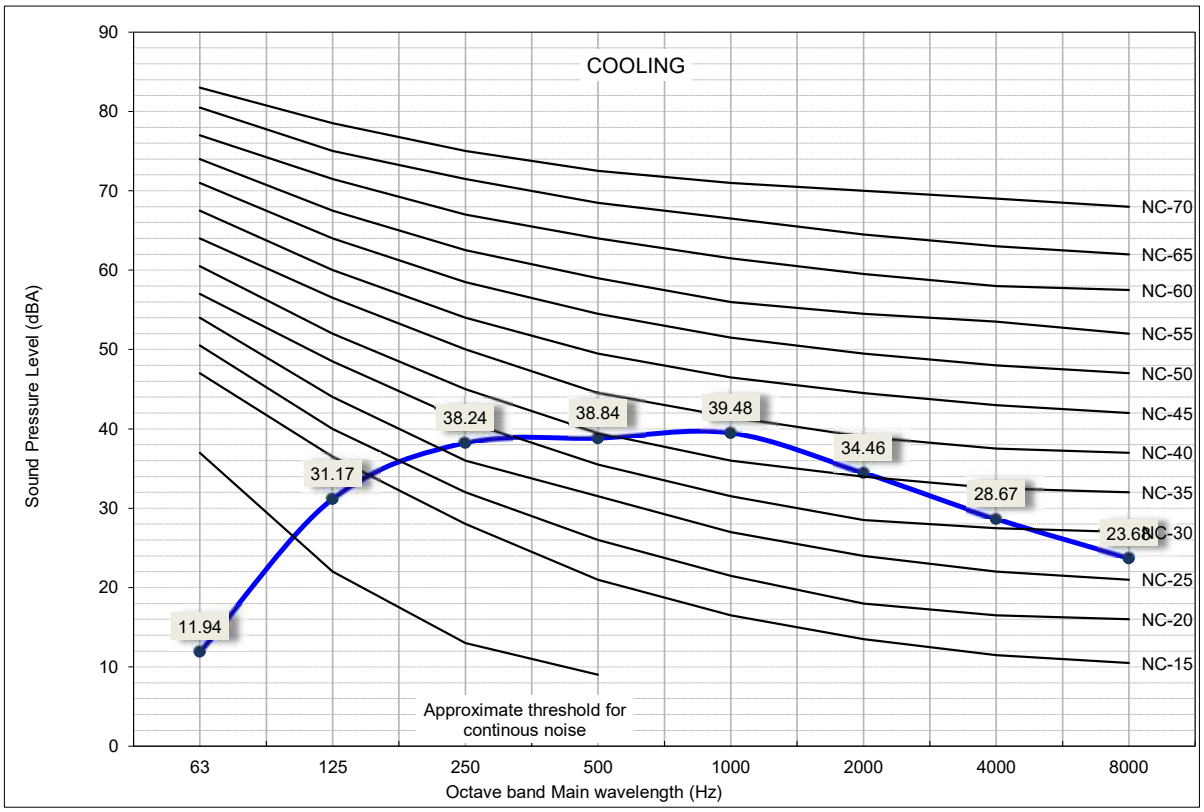


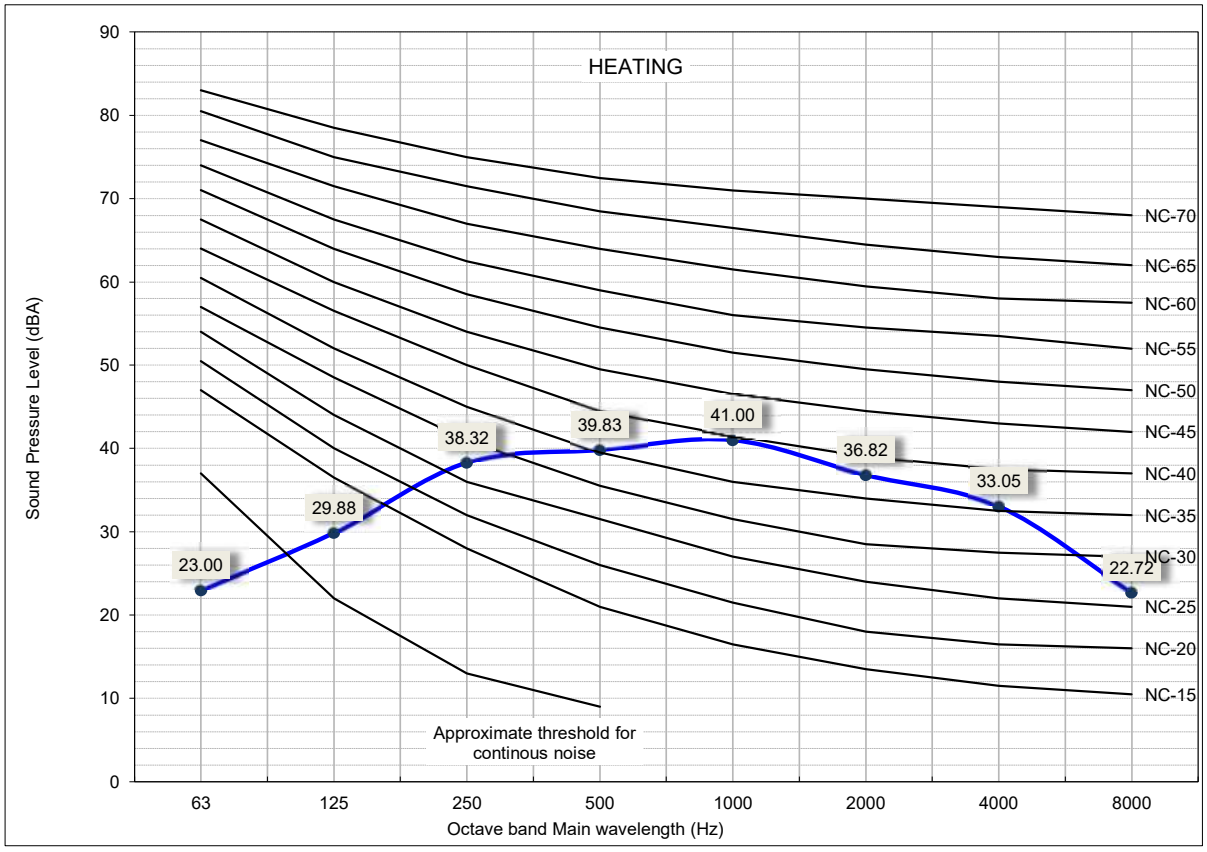
The Sound Pressure Level is based on the following conditions:

- 2.62ft (1 meter) from the beneath indoor heigh center and 3.28ft (1 meter) from discharge grille

The above data was measured in an anechoic chamber. Please take into consideration reflected sound of your specific site.

4.2. RAC-GJ09WHAA



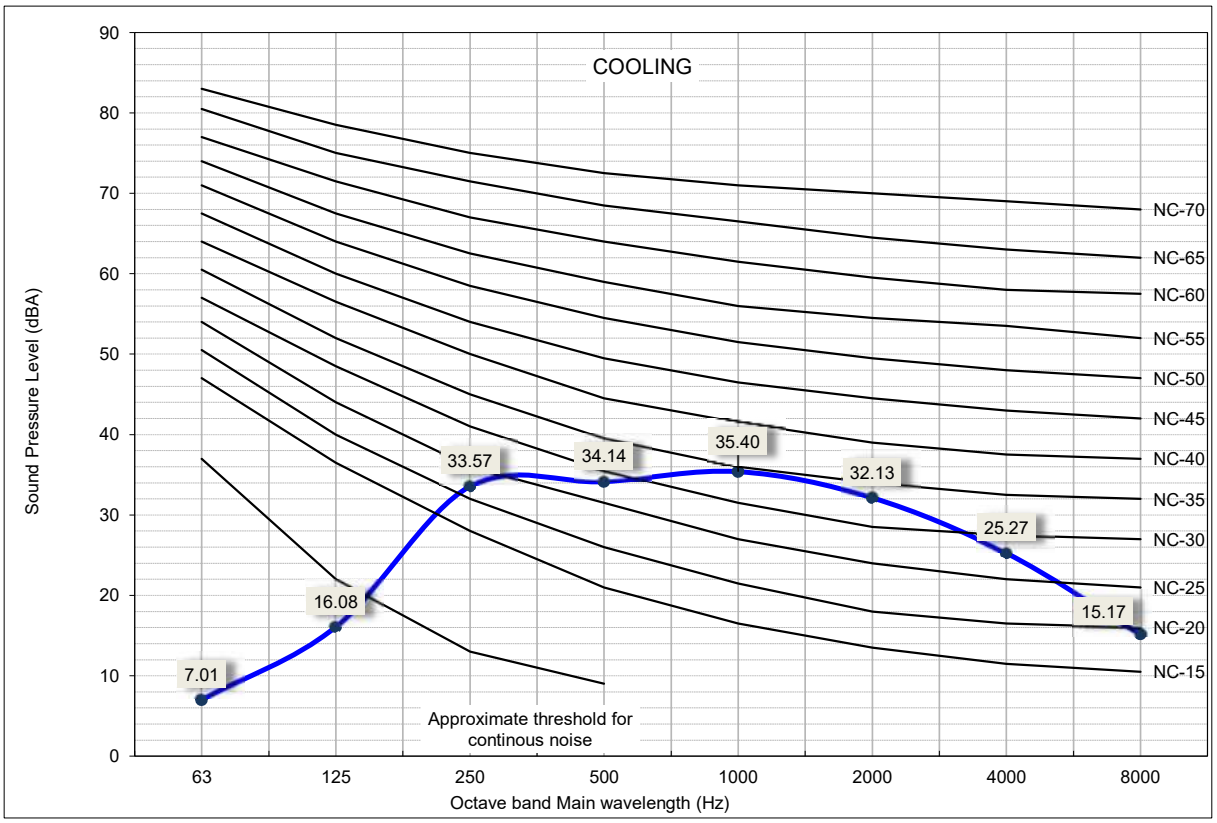


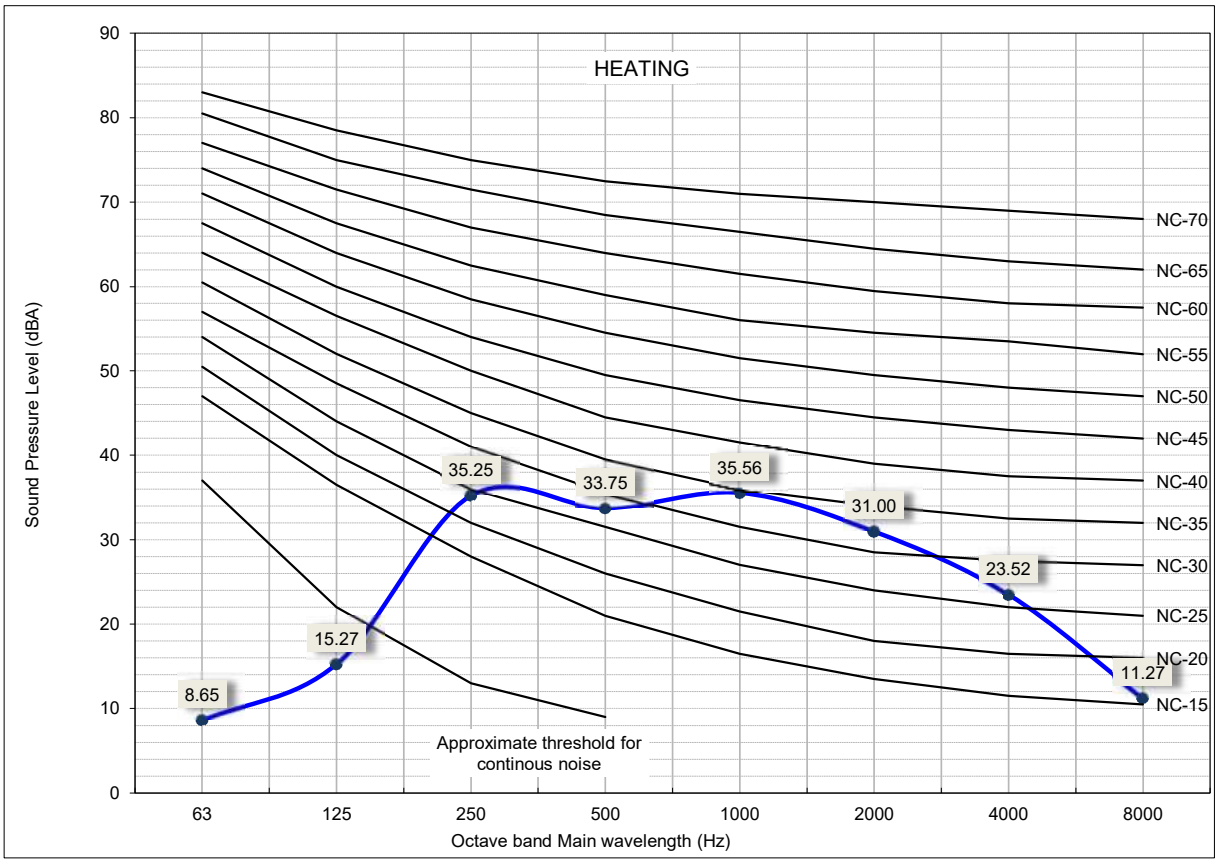
The Sound Pressure Level is based on the following conditions:

- 3.28ft (1 meter) from the unit front surface and 3.28ft (1 meter) from floor level

The above data was measured in an anechoic chamber. Please take into consideration reflected sound of your specific site.

4.3. RAK-GJ12PHAA



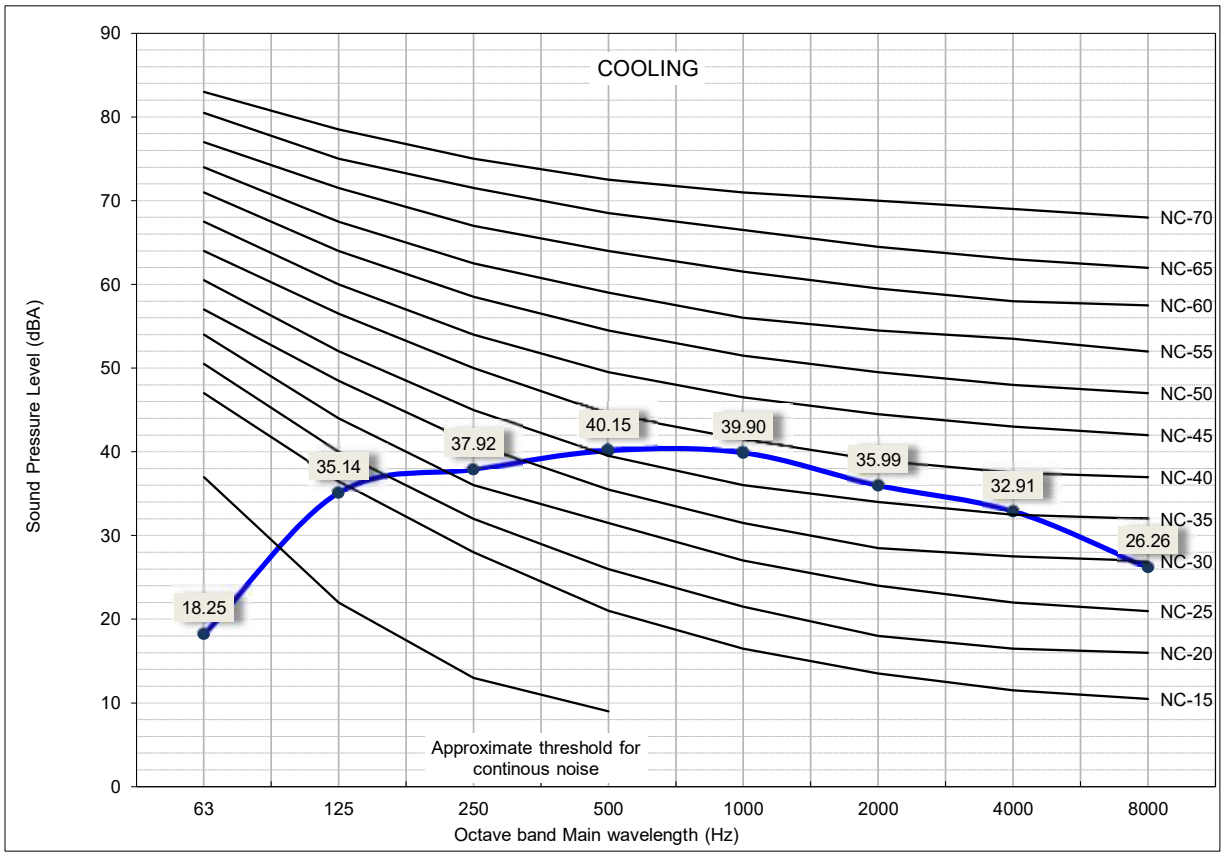


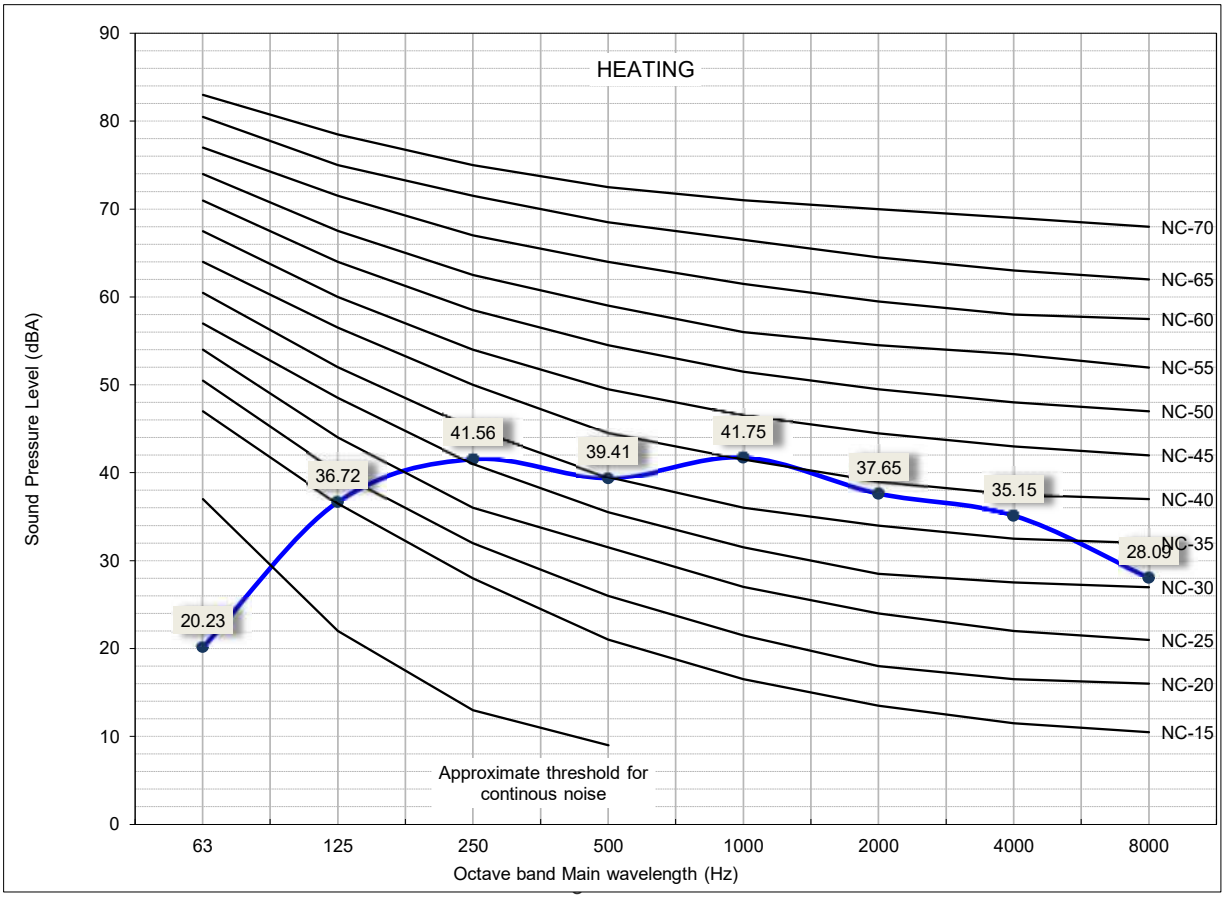
The Sound Pressure Level is based on the following conditions:

- 2.62ft (1 meter) from the beneath indoor heigh center and 3.28ft (1 meter) from discharge grille

The above data was measured in an anechoic chamber. Please take into consideration reflected sound of your specific site.

4.4. RAC-GJ12WHAA



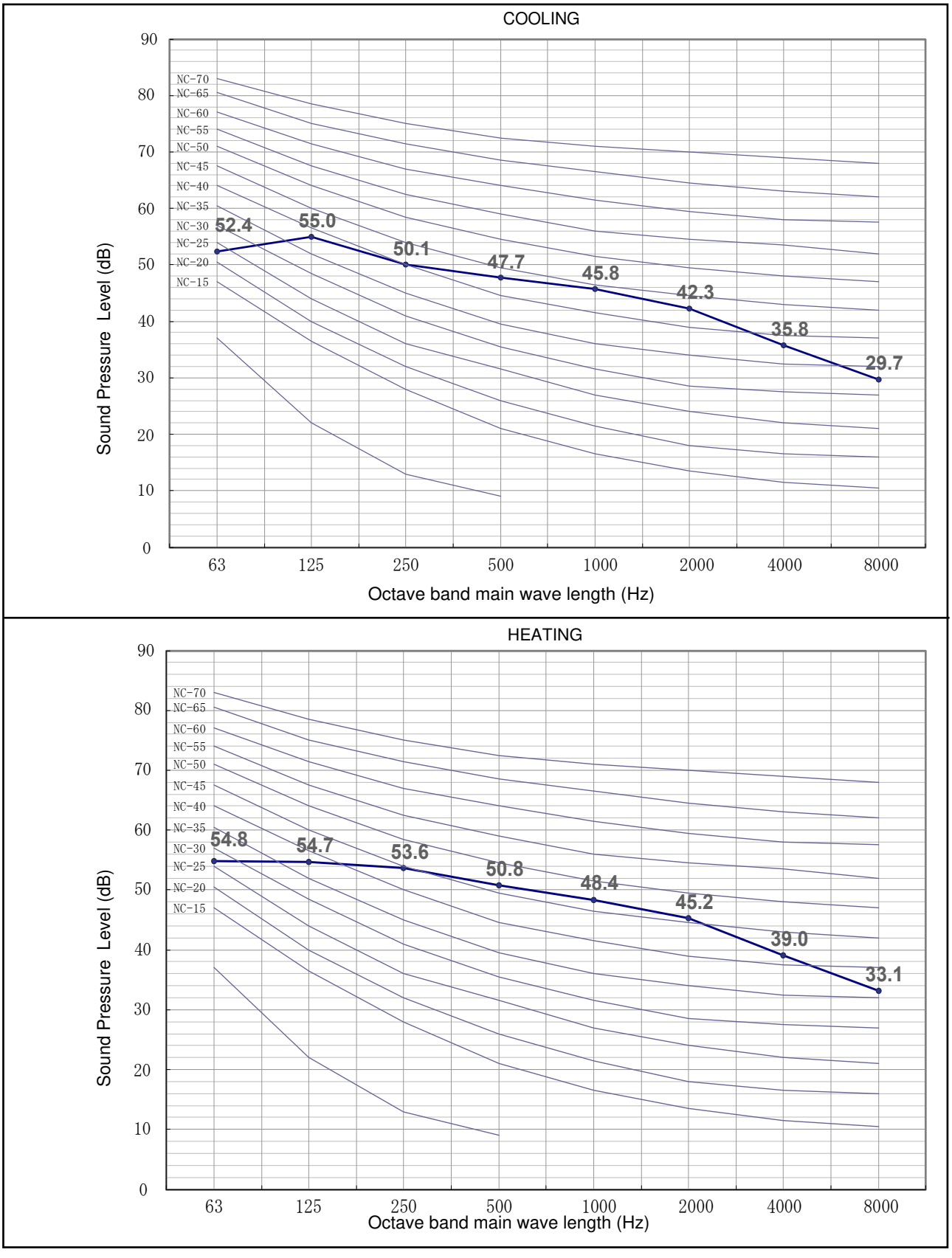


The Sound Pressure Level is based on the following conditions:

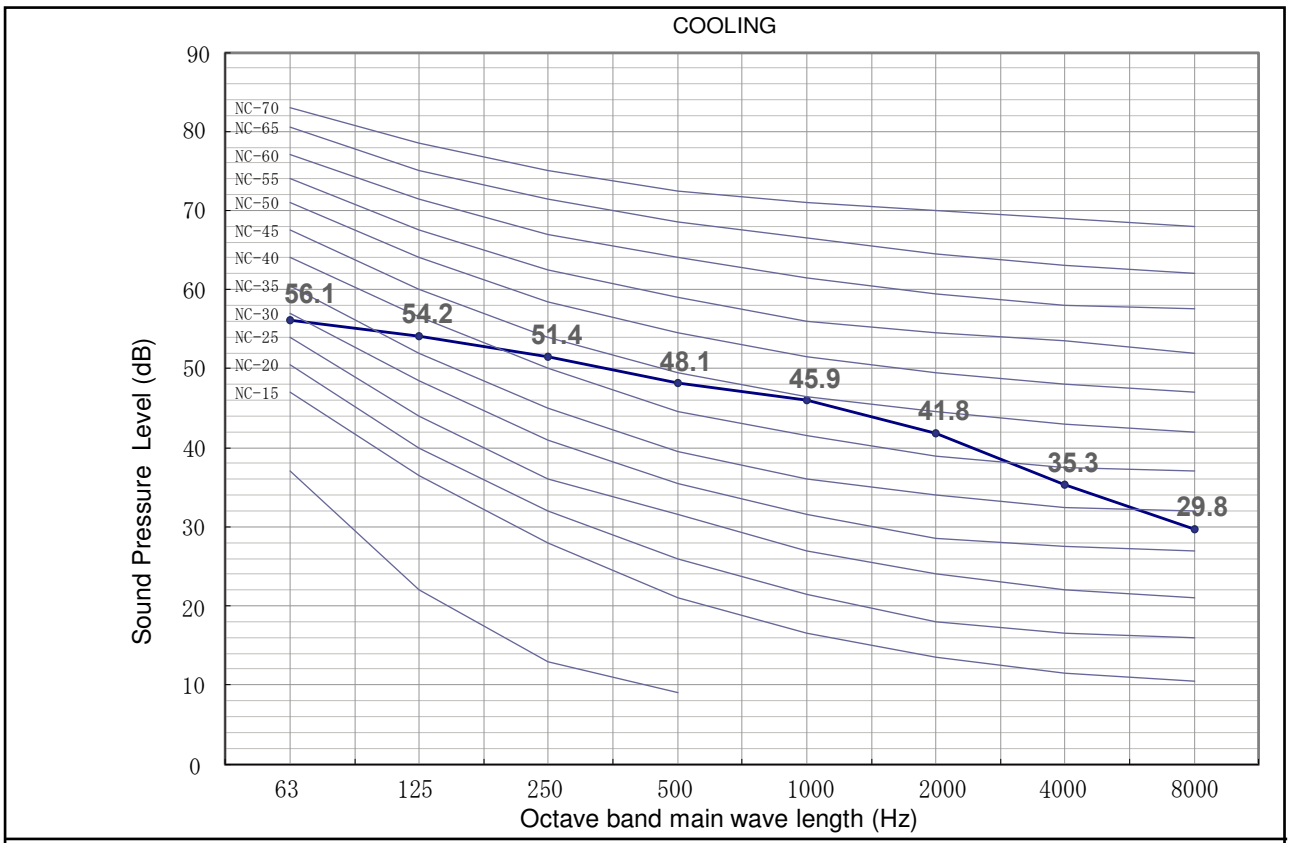
- 2.62ft (1 meter) from the beneath indoor heigh center and 3.28ft (1 meter) from discharge grille

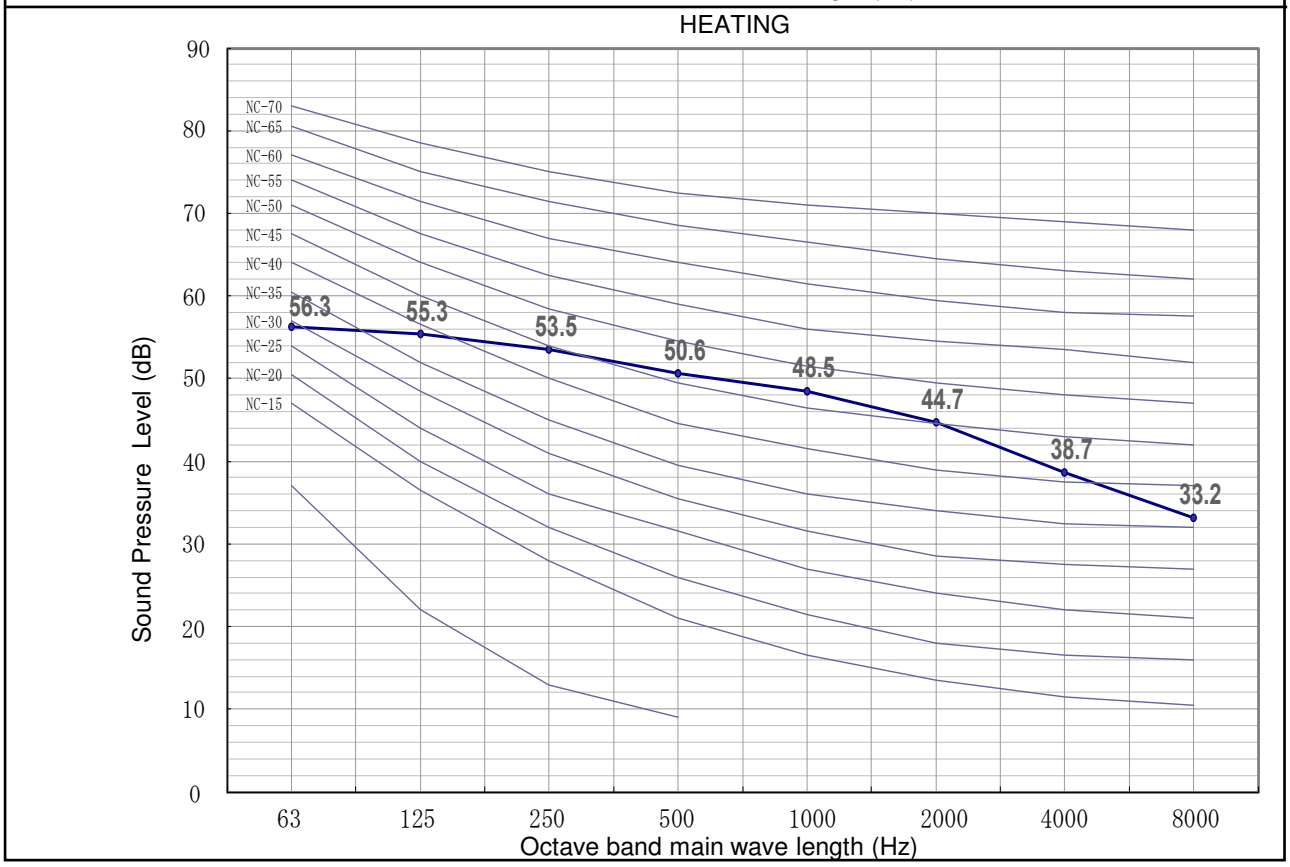
The above data was measured in an anechoic chamber. Please take into consideration reflected sound of your specific site.

4.5. RAC-GJ18WHAA



4.6. RAC-GJ24WHAA





5 WORKING RANGE

5.1. POWER SUPPLY

Working Voltage	208V ~ 230V
Voltage Imbalance	Within a 3% Deviation from Each Voltage at the Main Terminal of Outdoor Unit
Starting Voltage	Higher than 85% of the Rated Voltage

5.2. WORKING RANGE

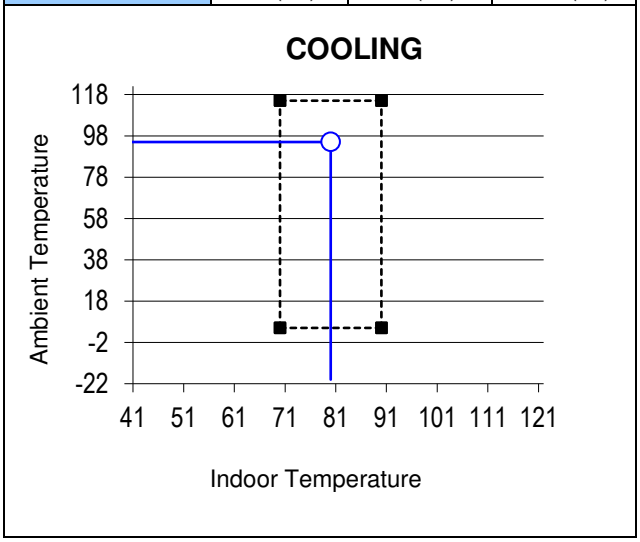
Applicable models:

RAC-GJ09WHAA
RAC-GJ12WHAA
RAC-GJ18WHAA
RAC-GJ24WHAA
RAC-GJ24WHAA

The temperature range is indicated in the following table.

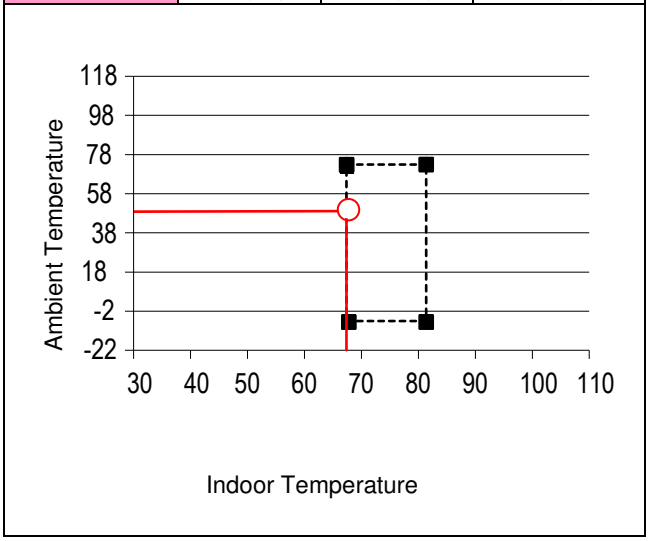
Cooling

working range	min °F(°C)	max °F(°C)	rated °F(°C)
outdoor	-0.4 (-18)	114.8 (46)	95 (35)
indoor	70 (21)	90 (32)	80.6 (27)



Heating

working range	min °F(°C)	max °F(°C)	rated °F(°C)
outdoor	-13 (-25)	75.2 (24)	44.6 (7)
indoor	68 (20)	81 (27)	68 (20)



6 ELECTRICAL DATA

6.1. INDOOR UNIT

Model	Unit Main Power VOL, PH, Hz	Rated input current of power conversion equipment (A)	Indoor Fan Motor	
			RNC (A)	IPT (W)
RAK-GJ09PHAA	208-230, 1, 60	0.66	0.45	30
RAK-GJ12PHAA	208-230, 1, 60	0.80	0.45	30
RAK-GJ15PHAA	208-230, 1, 60	0.80	0.45	30
RAK-GJ18PHAA	208-230, 1, 60	0.80	0.50	38
RAK-GJ24PHAA	208-230, 1, 60	0.80	0.70	38

VOL: Rated Unit Power Supply Voltage (V)
Hz: Frequency (Hz)
IPT: Input (W)
RNC: Running Current (A)
PH: Phase (ϕ)

6.2. OUTDOOR UNIT

Model	Unit Main Power		Electrical Data			
	VOL, PH, Hz	Rated input current of power conversion equipment (A)	Rated Cooling Current (A)	Rated Heating Current (A)	MCA	MOP
RAC-GJ09WHAA	208-230, 1, 60	7.0	2.90	4.10	12	20
RAC-GJ12WHAA	208-230, 1, 60	10.0	4.05	4.88	14	25
RAC-GJ15WHAA	208-230, 1, 60	11.5	5.55	8.07	16	25
RAC-GJ18WHAA	208-230, 1, 60	15.0	6.10	7.30	20	32
RAC-GJ24WHAA	208-230, 1, 60	15.0	7.40	8.80	20	32

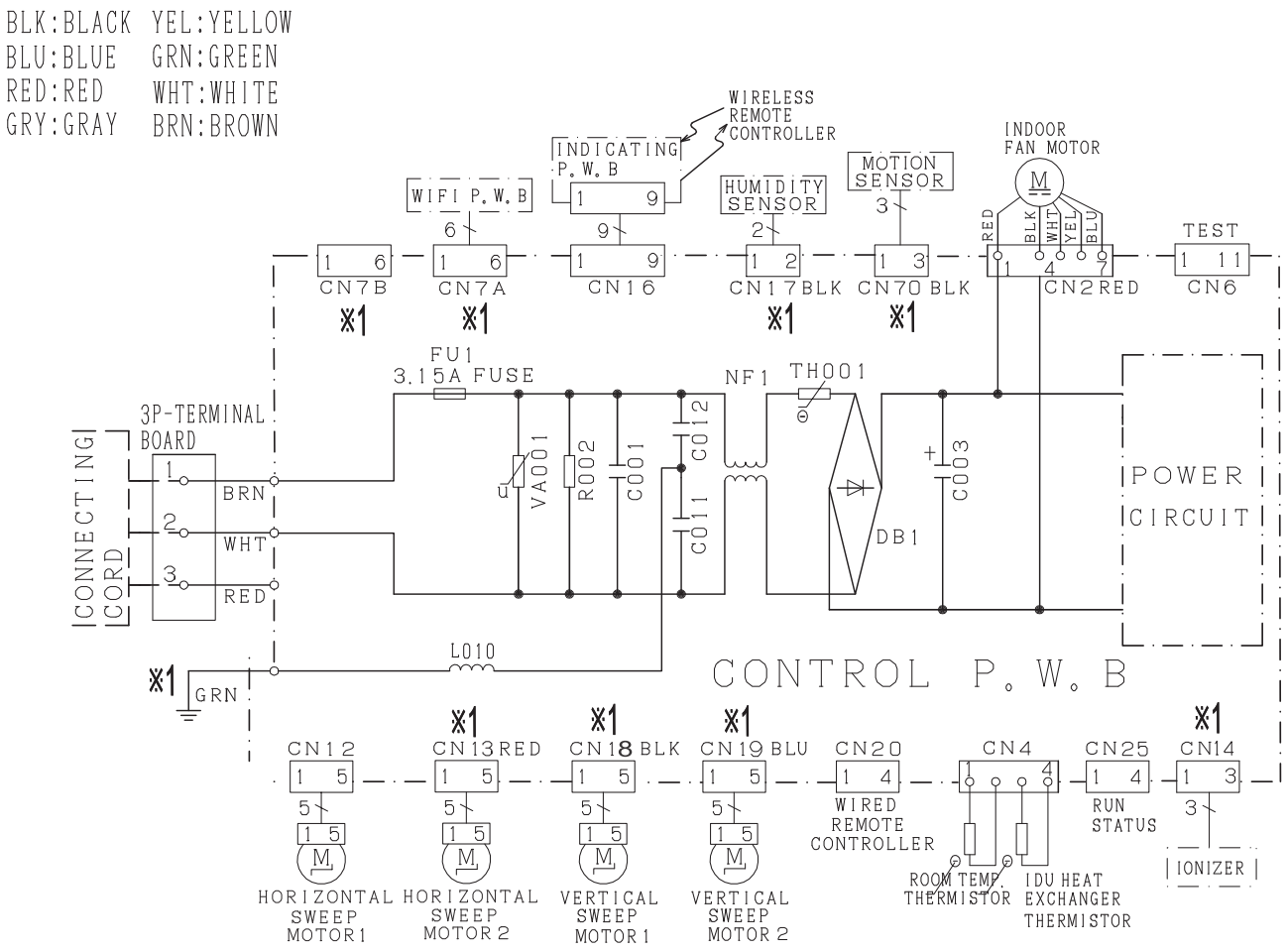
VOL: Rated Unit Power Supply Voltage (V)
HZ: Frequency (Hz)
STC: Starting Current (A)
RNC: Running Current (A)
PH: Phase (ϕ)
IPT: Input (W)

NOTE:

1. The above compressor data is based on 100% capacity combination of indoor units at the rated operating frequency
2. This data is based on the same conditions as the nominal heating and cooling capacities.
3. The compressor started by an inverter, resulting in extremely low starting current.

7 WIRING DIAGRAM

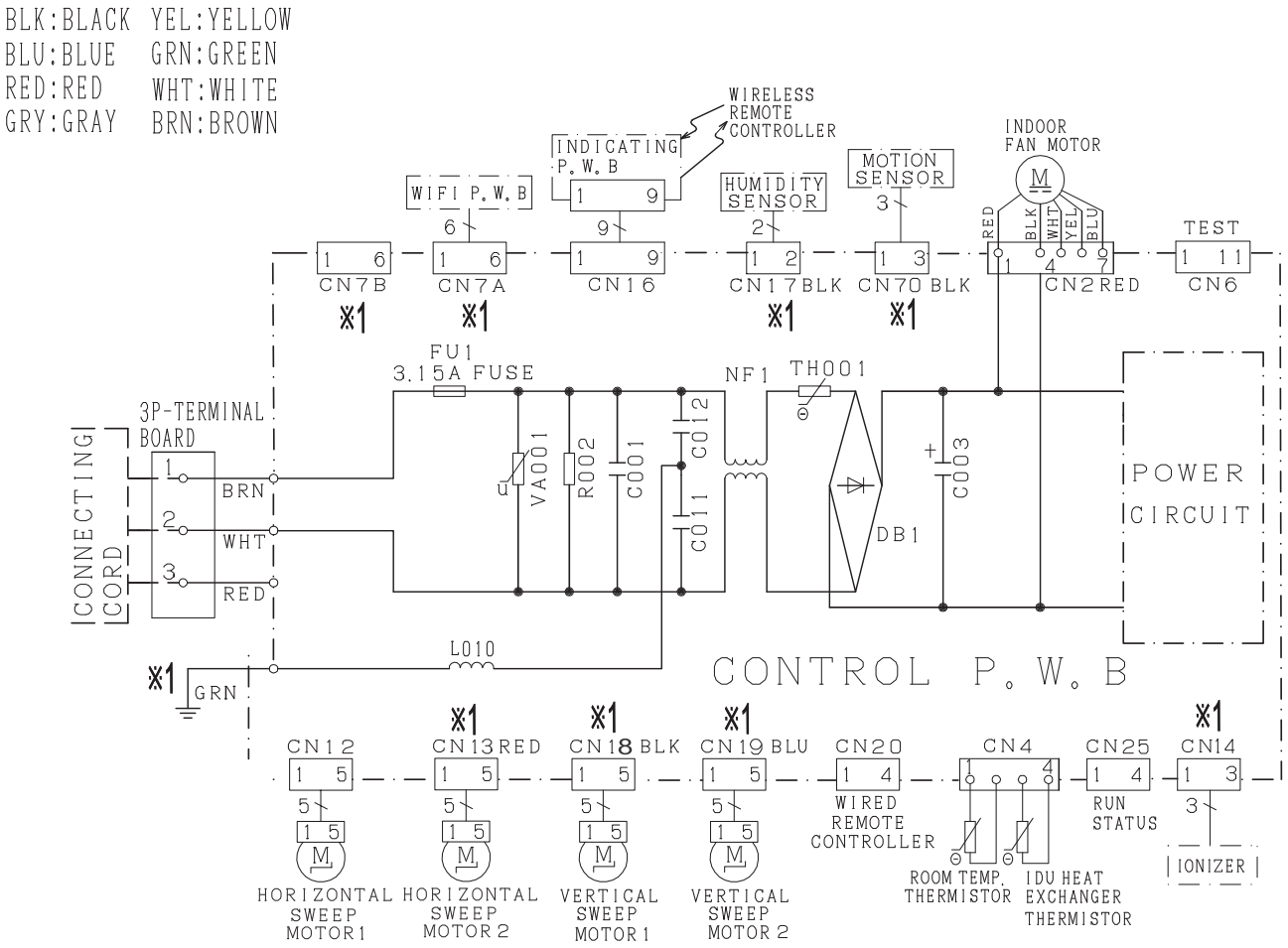
7.1. RAK-GJ09PHAA, RAK-GJ12PHAA, RAK-GJ15PHAA



※1: SOME MODEL DO NOT HAVE THIS FUNCTION

CAUTION! HIGH VOLTAGE	TURN OFF THE POWER SOURCE DURING THE SERVICE WORK。

7.2. RAK-GJ18PHAA



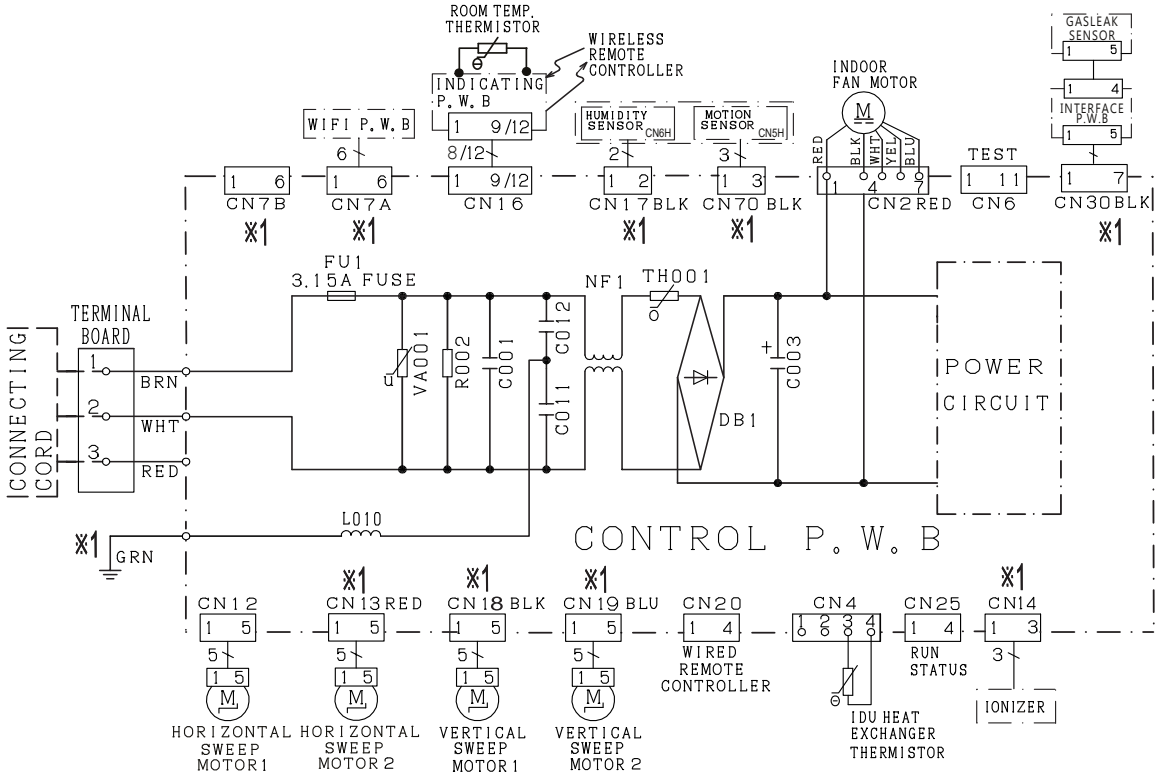
※1: SOME MODEL DO NOT HAVE THIS FUNCTION

CAUTION! HIGH VOLTAGE	TURN OFF THE POWER SOURCE DURING THE SERVICE WORK.

7.3. RAK-GJ24PHAA

WIRING DIAGRAM

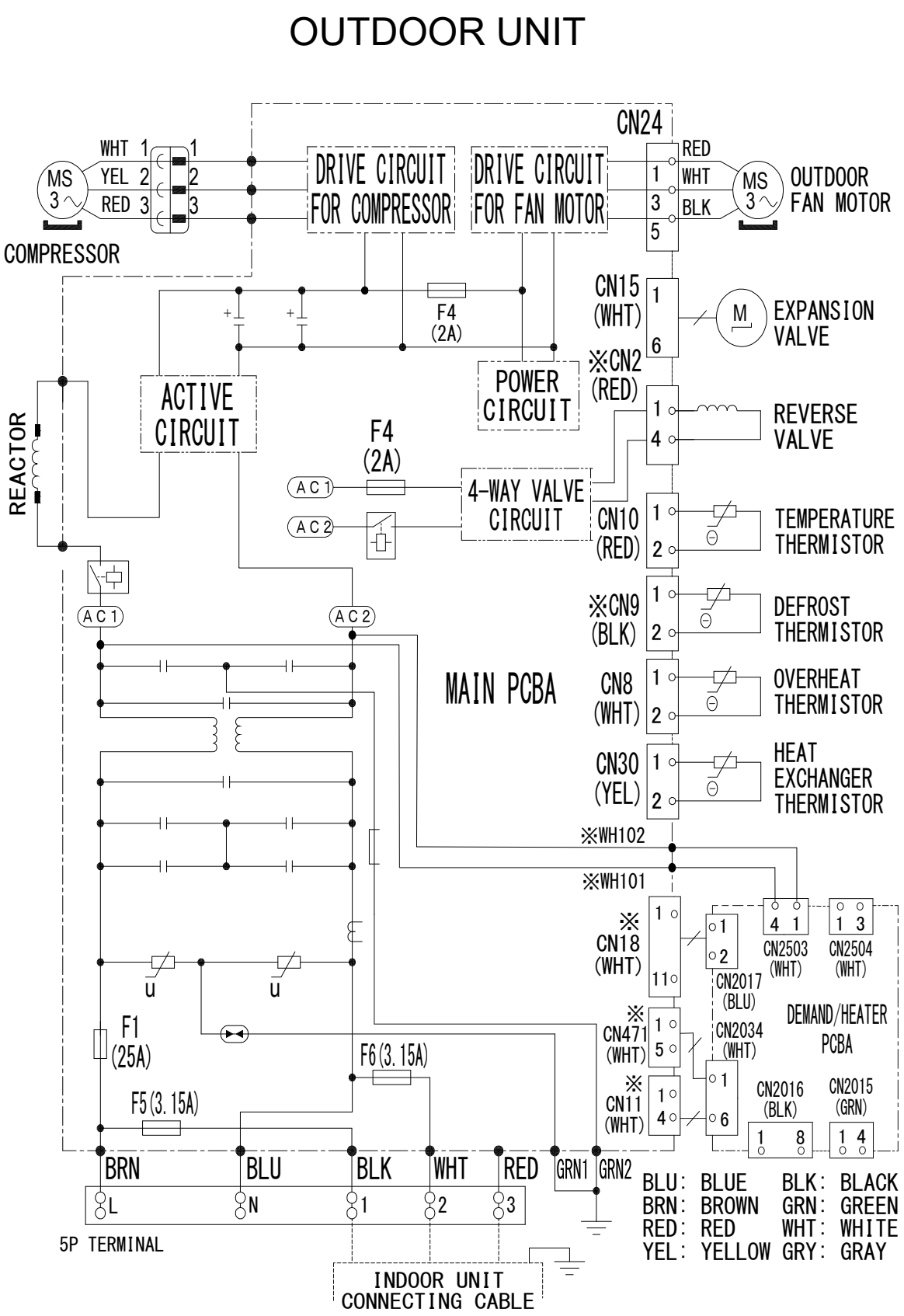
BLK:BLACK YEL:YELLOW
BLU:BLUE GRN:GREEN
RED:RED WHT:WHITE
GRY:GRAY BRN:BROWN



※1:SOME MODEL DO NOT HAVE THIS FUNCTION.

CAUTION! HIGH VOLTAGE	TURN OFF THE POWER SOURCE DURING THE SERVICE WORK.

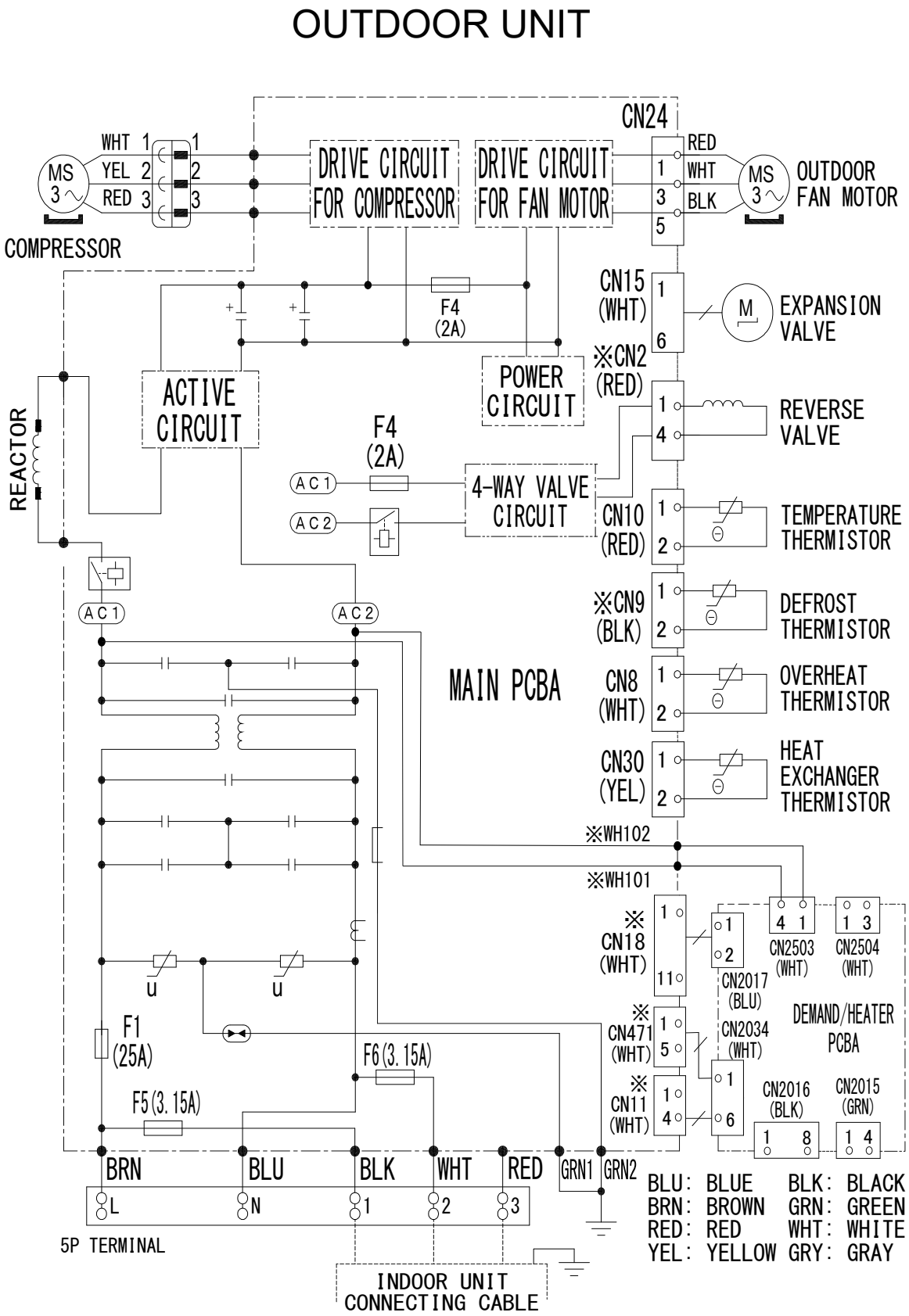
7.4. RAC-GJ09WHAA



※SOME MODEL DO NOT HAVE THIS FUNCTION.

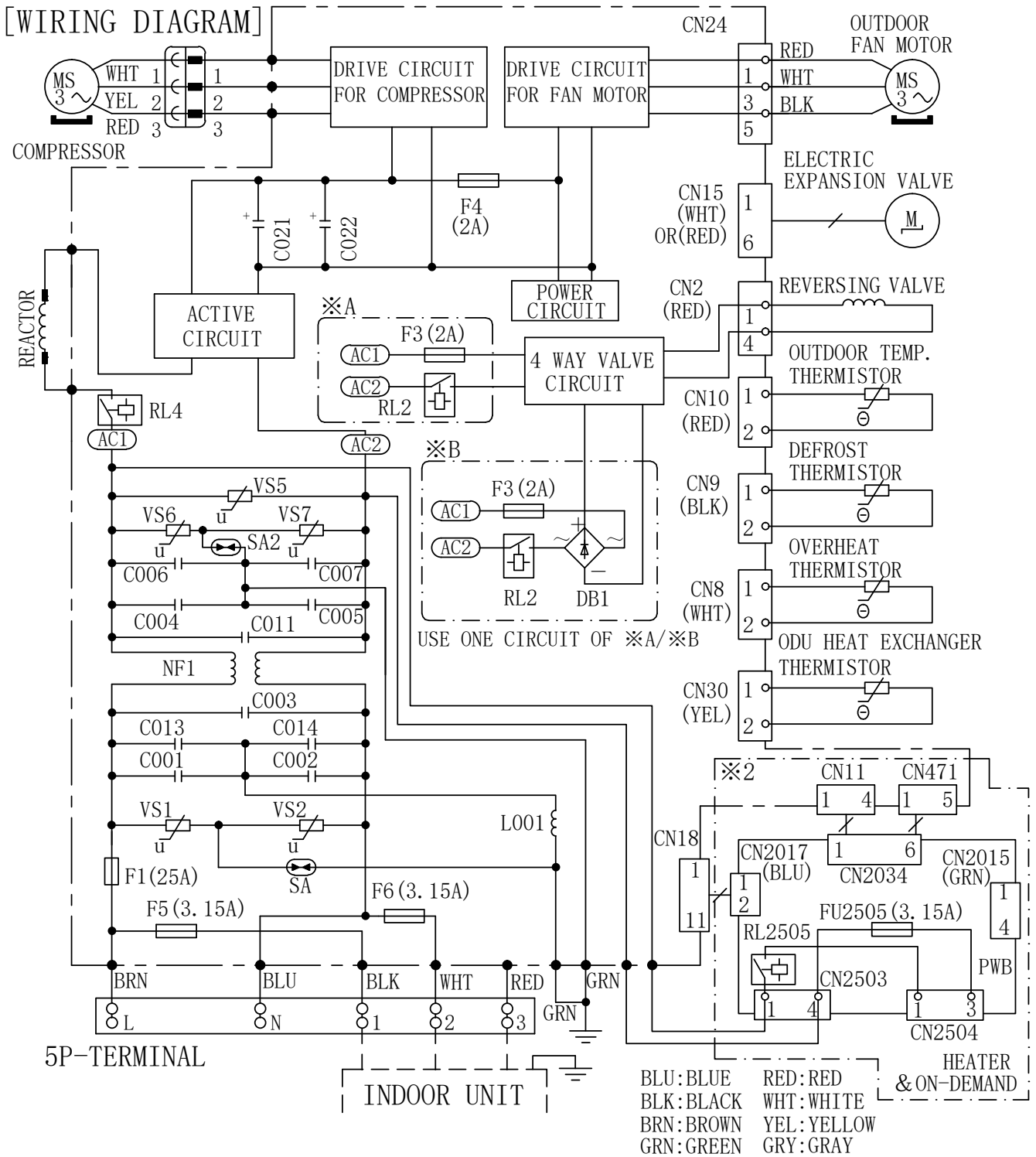
WIRING DIAGRAM

7.5. RAC-GJ12WHAA, RAC-GJ15WHAA



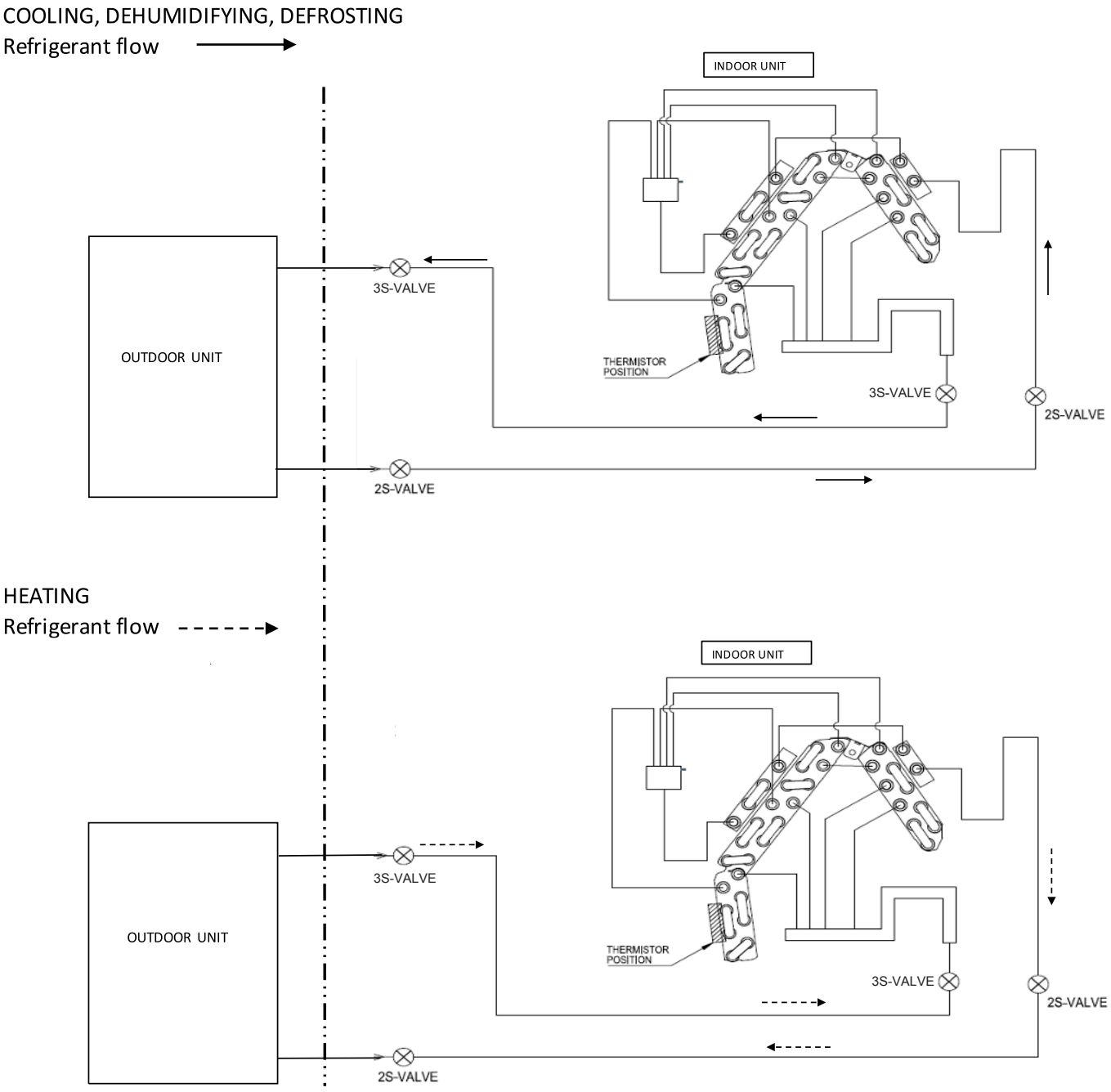
※SOME MODEL DO NOT HAVE THIS FUNCTION.

7.6. RAC-GJ18WHAA / RAC-GJ24WHAA



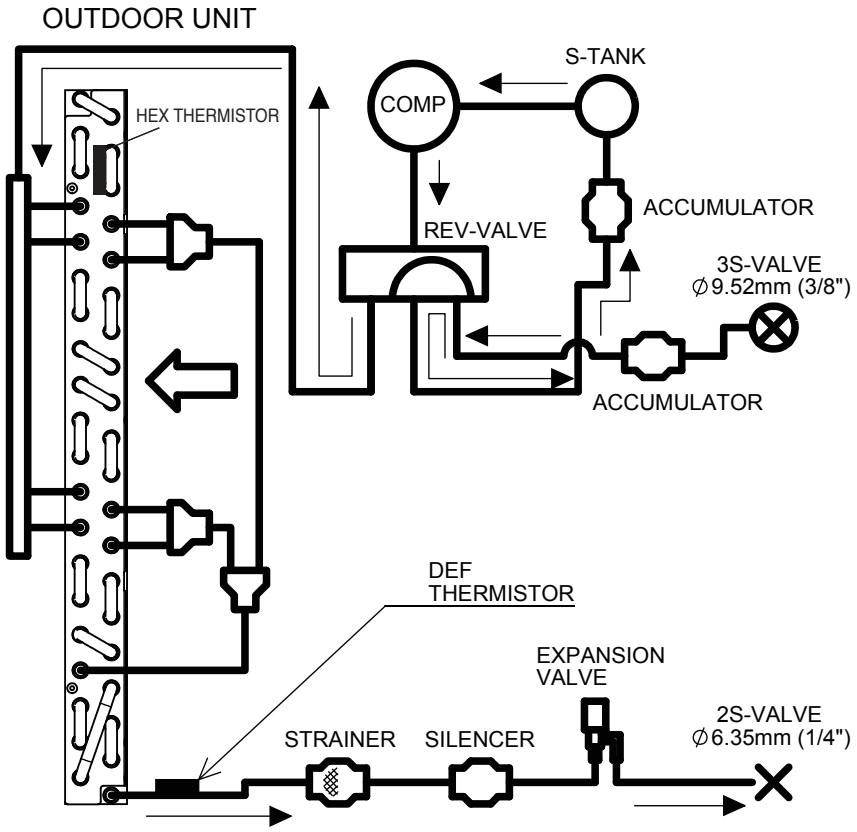
8 REFRIGERANT CYCLE

8.1. RAK-GJ09PHAA, RAK-GJ12PHAA

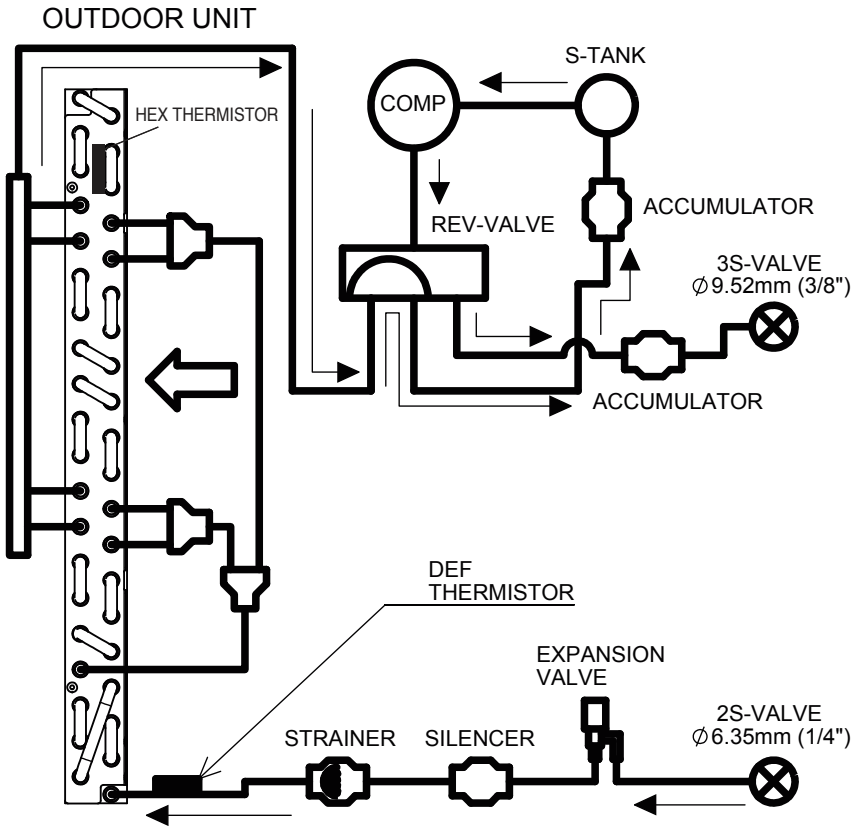


8.2. RAC-GJ09WHAA

COOLING, DEHUMIDIFYING, DEFROSTING

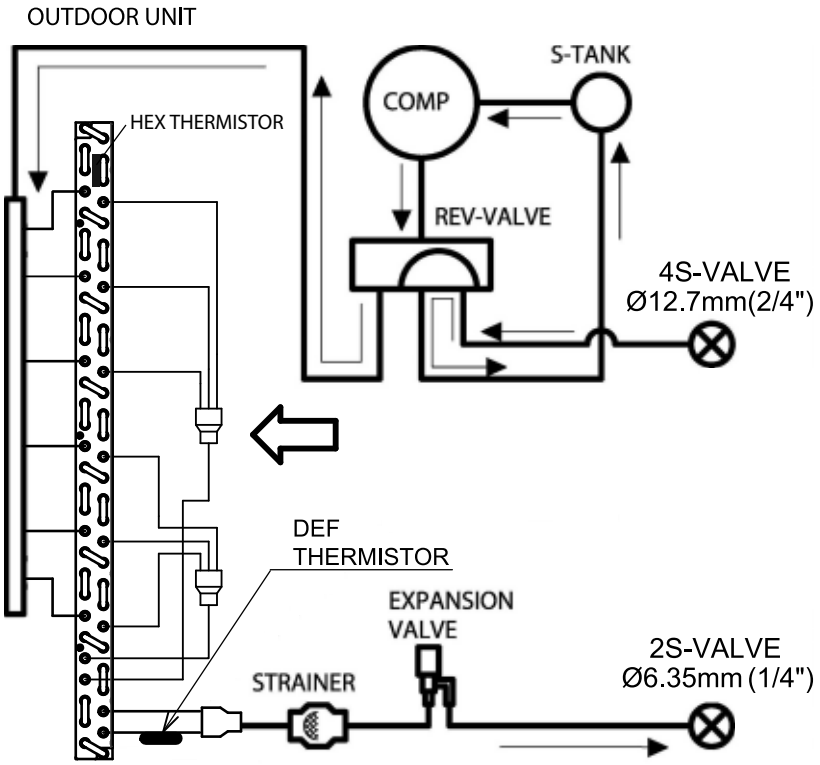


HEATING

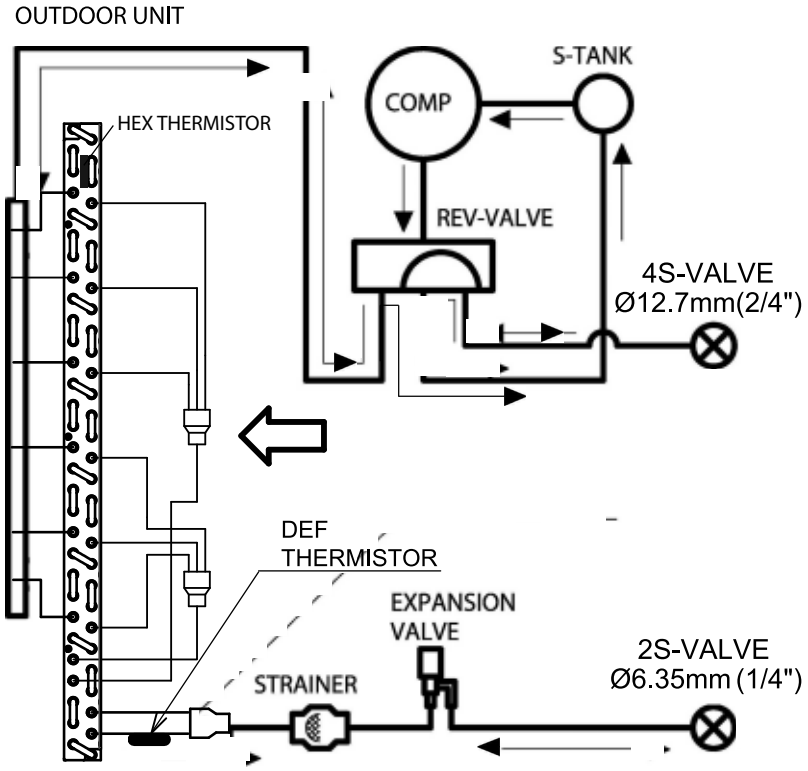


8.3. RAC-GJ12WHAA

COOLING, DEHUMIDIFYING, DEFROSTING

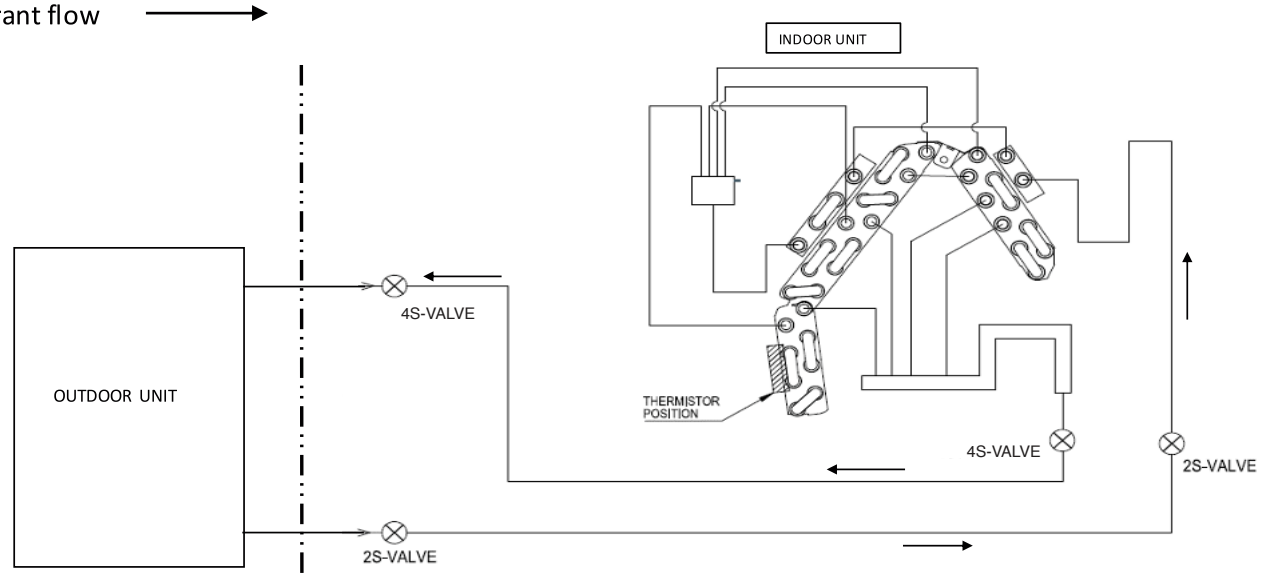


HEATING

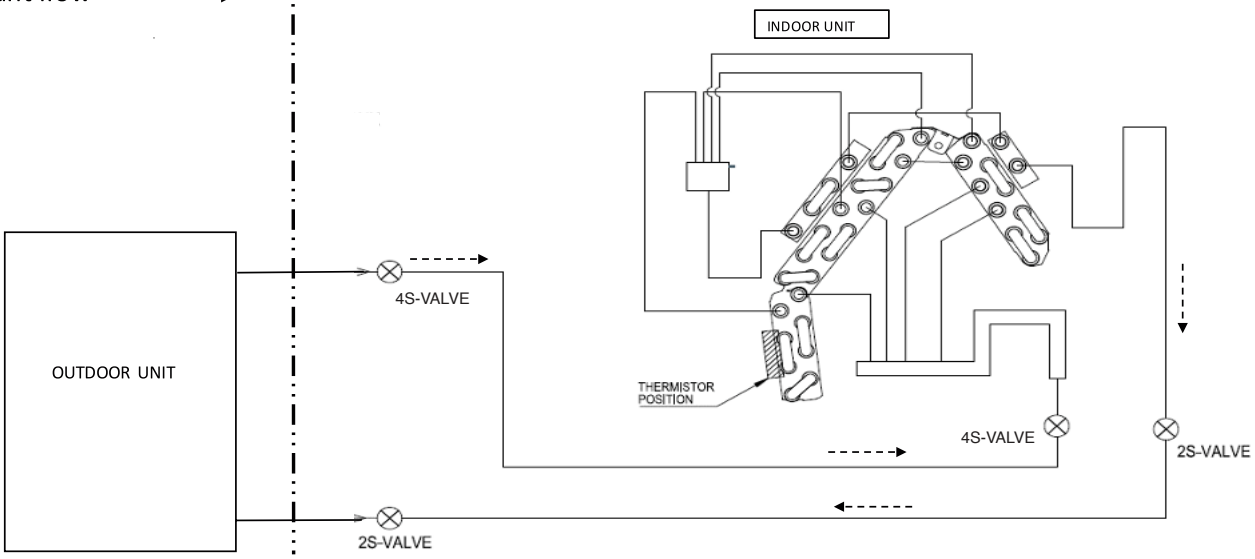


8.4. RAK-GJ15PHAA, RAK-GJ18PHAA

COOLING, DEHUMIDIFYING, DEFROSTING
Refrigerant flow

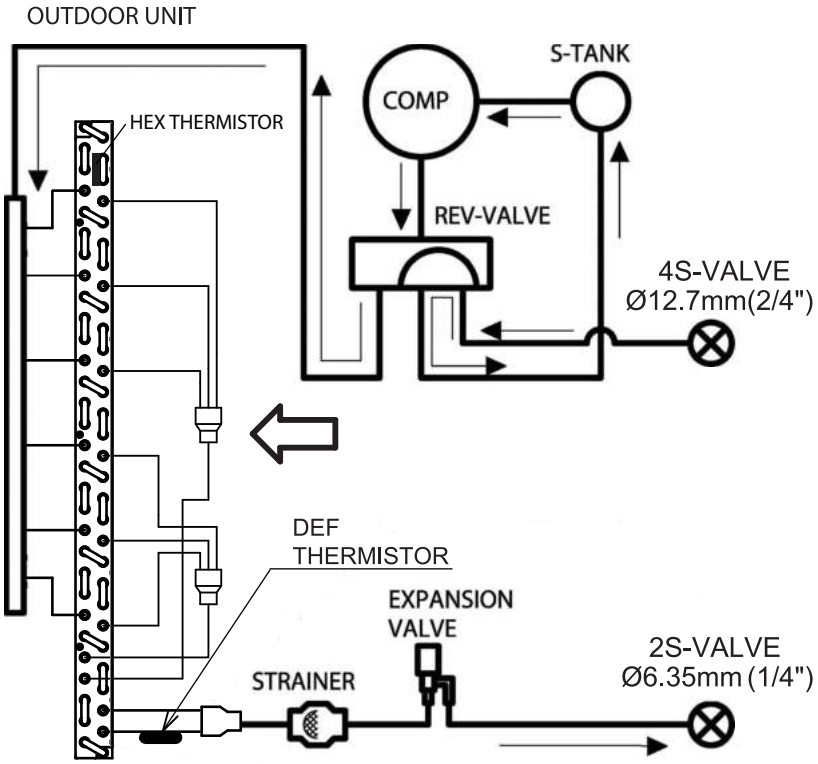


HEATING
Refrigerant flow

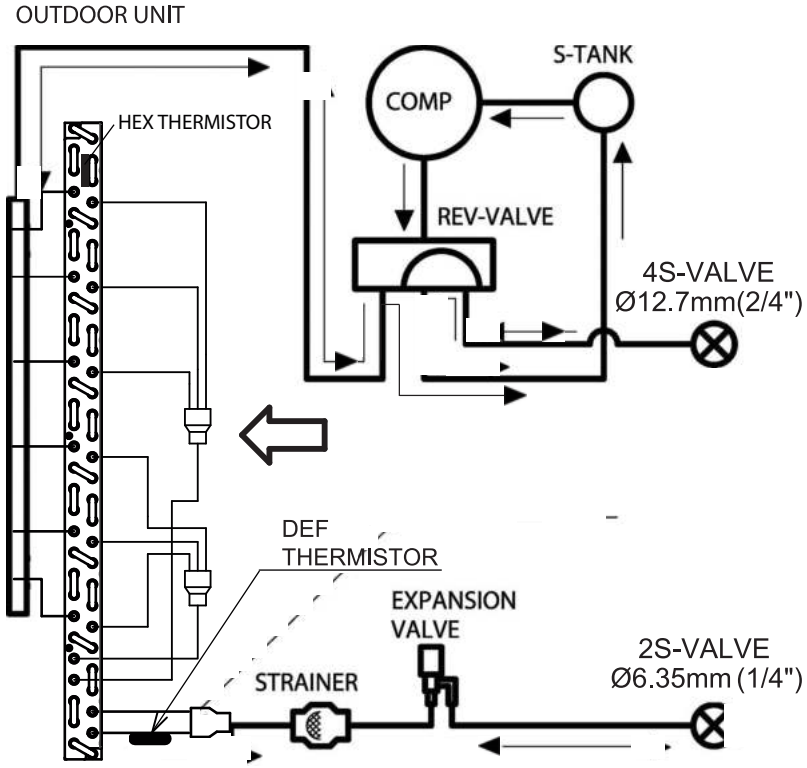


8.5. RAC-GJ15WHAA

COOLING, DEHUMIDIFYING, DEFROSTING



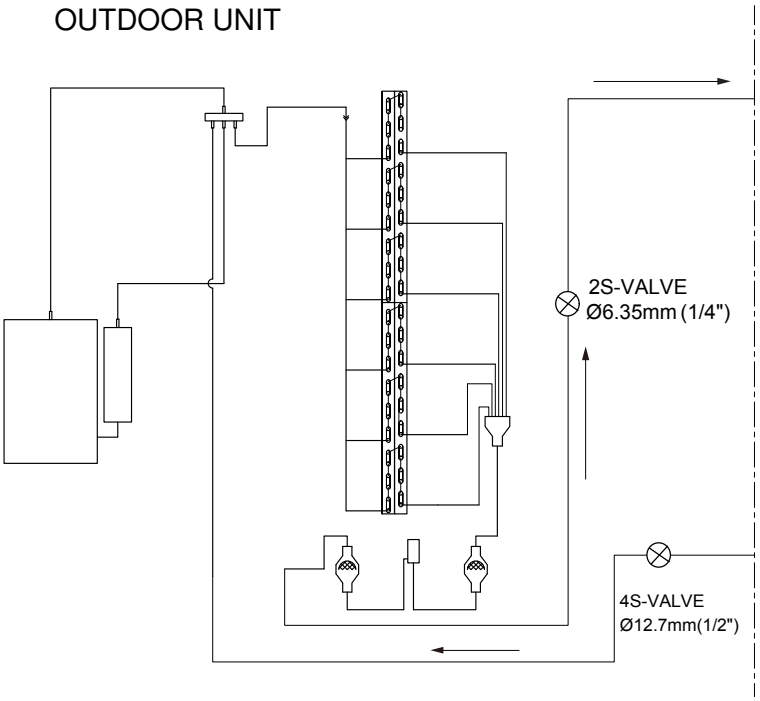
HEATING



8.6. RAC-GJ18WHAA

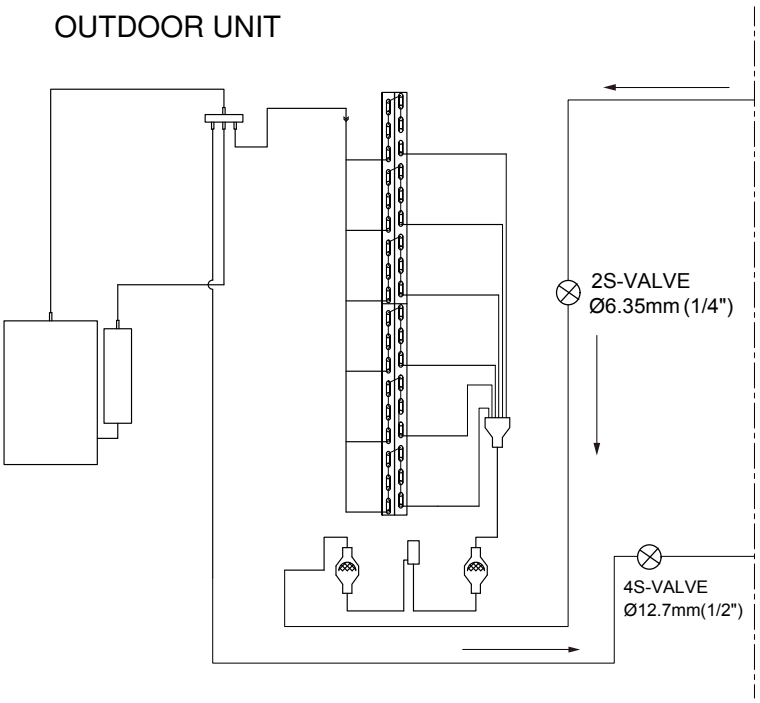
COOLING

OUTDOOR UNIT



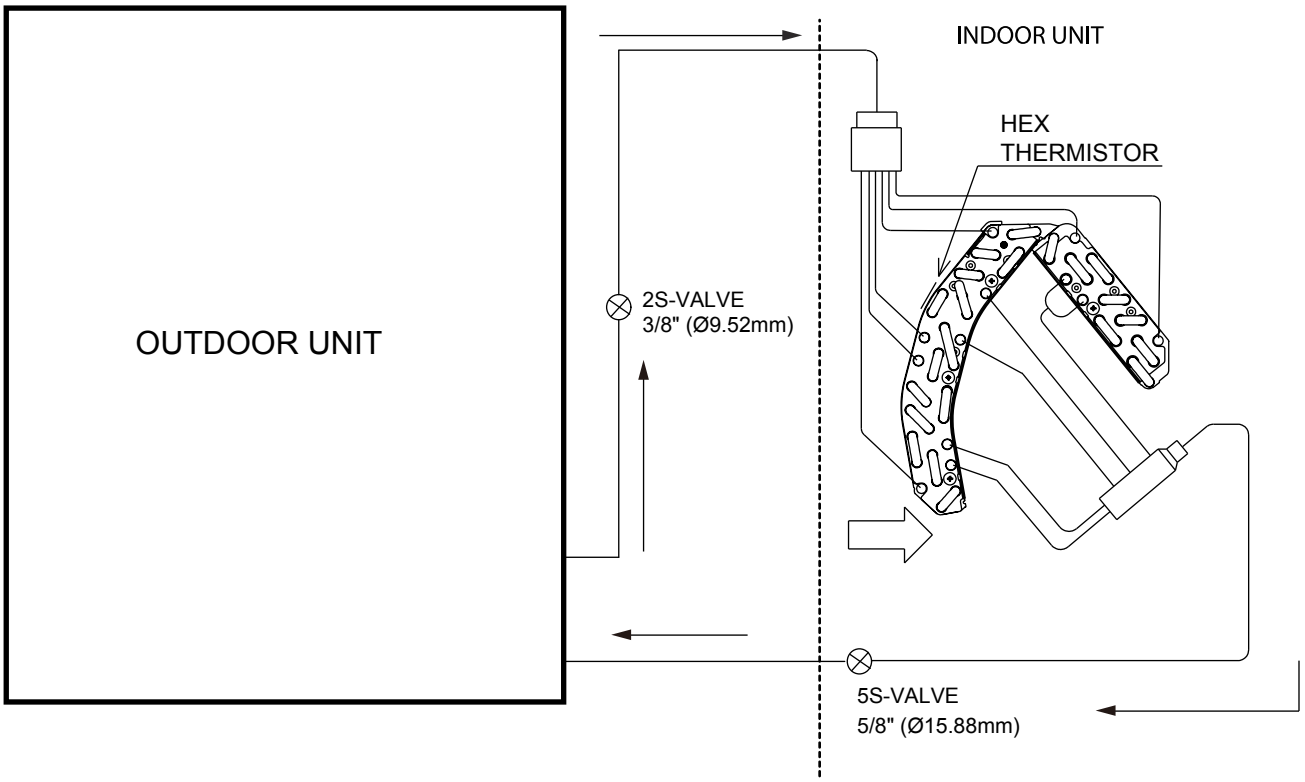
HEATING

OUTDOOR UNIT

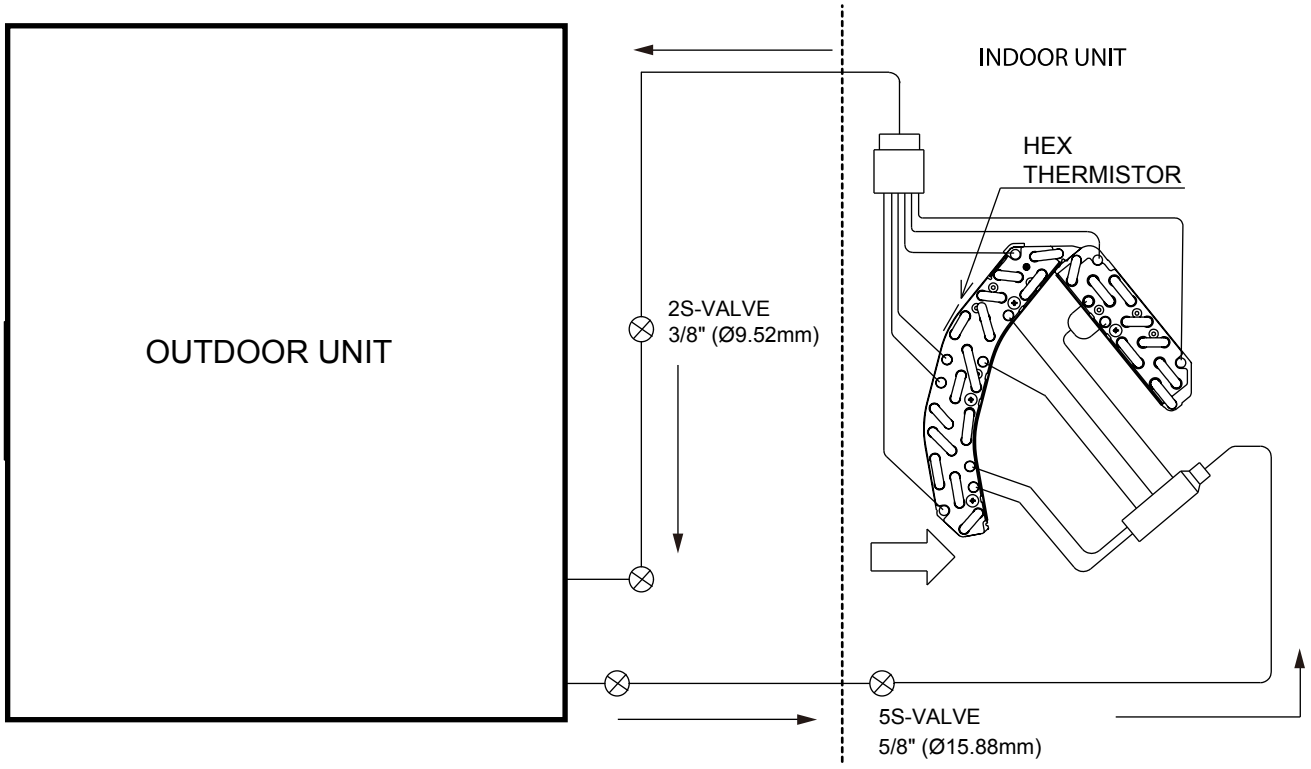


8.7. RAK-GJ24PHAA

COOLING, DEHUMIDIFYING, DEFROSTING



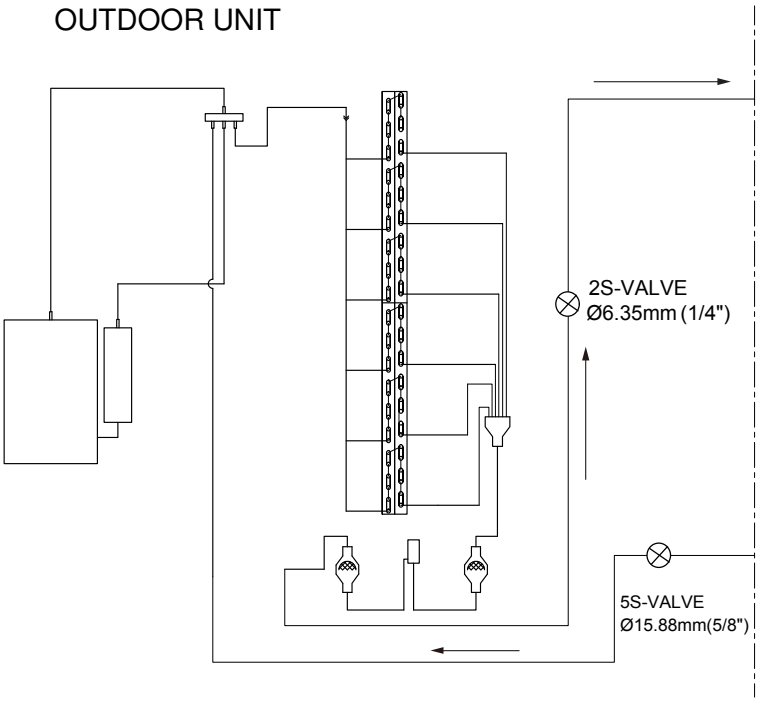
HEATING



8.8. RAC-GJ24WHAA

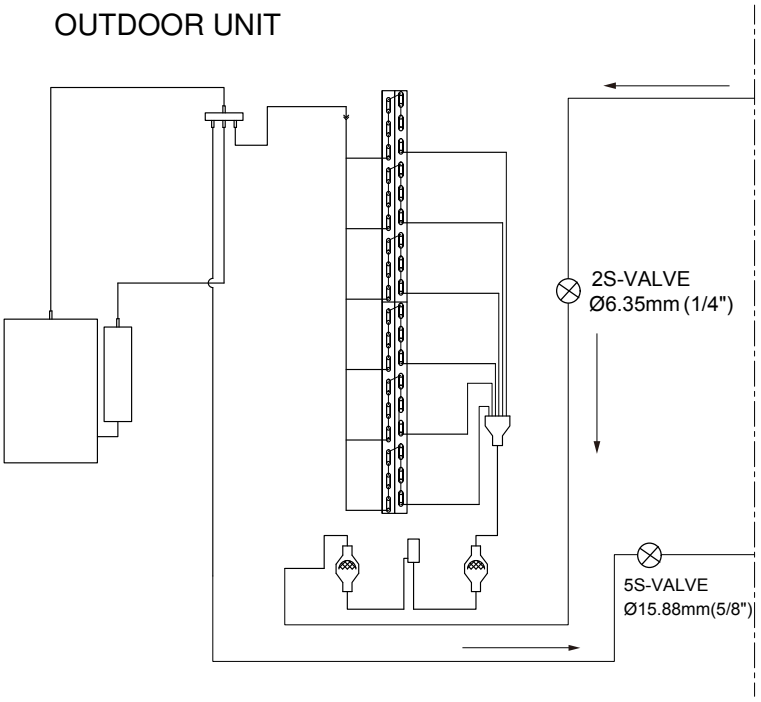
COOLING

OUTDOOR UNIT



HEATING

OUTDOOR UNIT



9 CONTROL AND FUNCTION

9.1. WIRELESS REMOTE CONTROL AND FUNCTION

RC-AGS1EAON

RAK-GJ09PHAA RAK-GJ12PHAA RAK-GJ18PHAA RAK-GJ24PHAA

BUTTONS	FUNCTION
Mode	**MODE Selector Button** Use this button to select the operationg mode. Every time you press this button, the mode will change from (Heat) > (Auto) > (Cool) > (Dry) > (Fan) cyclically.
GoodSleep	**GoodSleep Button** The unit shifts the room temperature and reduces the fan speed.
Temp	**Temperature Button** Room temperature setting. Value will change quicker when keep pressing.
FrostWash	**FROST WASH / CLEAN Button** The dust and dirt adhering to indoor heat exchanger which is the cause of the smell. They are washed away by freezing and thawing of the heat exchanger.
Fan Speed	**FAN SPEED Selector Button** Select the fan speed.
	START/STOP Button Press this button to start operation. Press it again to stop operation.
Powerful	**POWERFUL Button** The air conditioner performs at maximum power.
Silent	**SILENT Button** The fan speed chnages to the silent fan speed.
On Timer	**On Timer Button** Select the turn ON time.

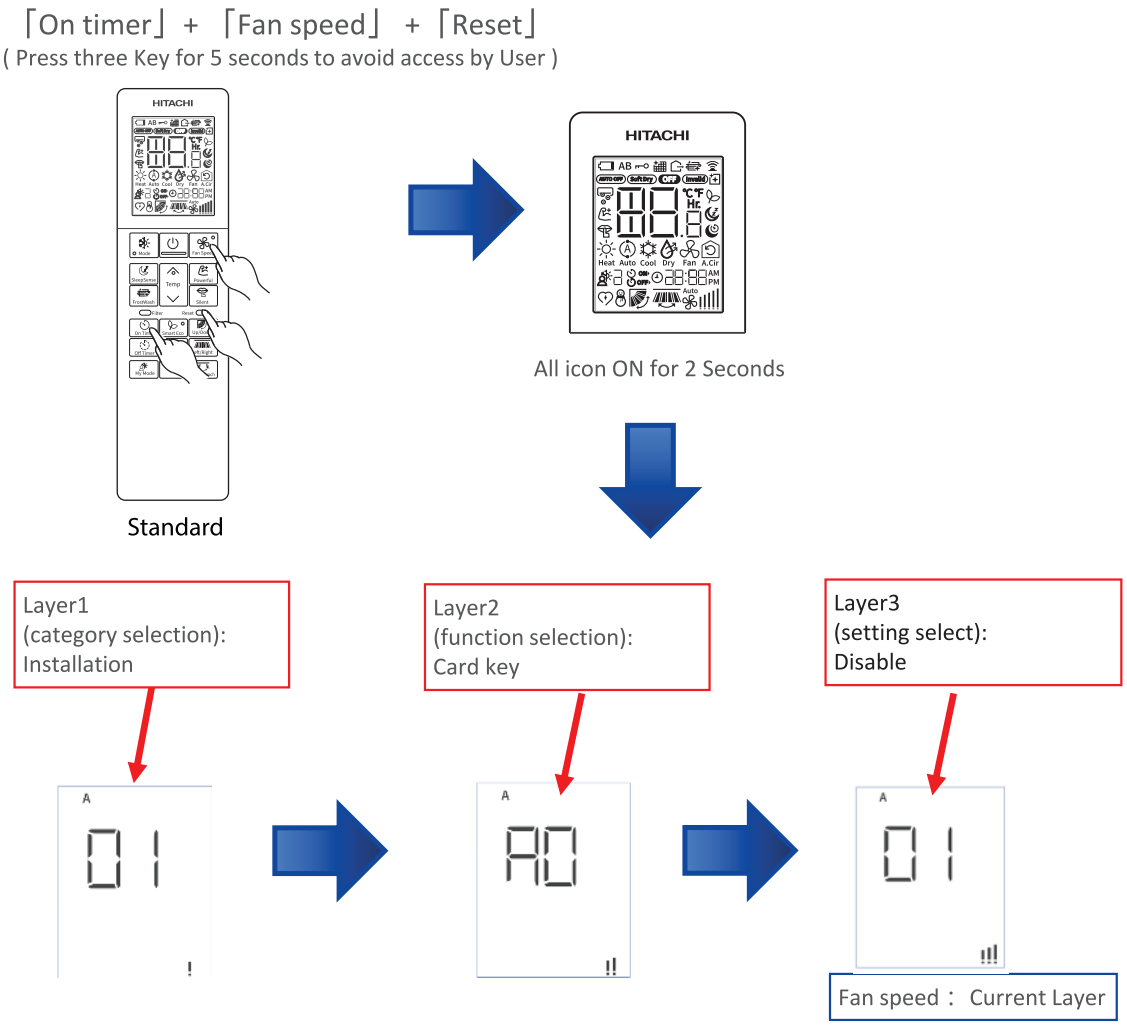
CONTROL AND FUNCTION

	**Off Timer Button** Select the turn OFF time.
	**ECO Button** Use this button to set the ECO mode.
	**LEAVE HOME Button** Prevent the room temperature from falling too much by setting temperature 10°C~16°C when no one is at home.
	**Up/Down Button** Control the angle of the horizontal air deflector.
	**Left/Right Button** Control the angle of the Vertical air deflector.
	**Wide Reach Button** Control the angle of the Vertical air deflector.
	**My Mode Button** Use this mode for personalized comfortable settings. The My Mode can be set by using the remote controller. Up to 3 programs can be set.

For more information, please refer to the operation manual.

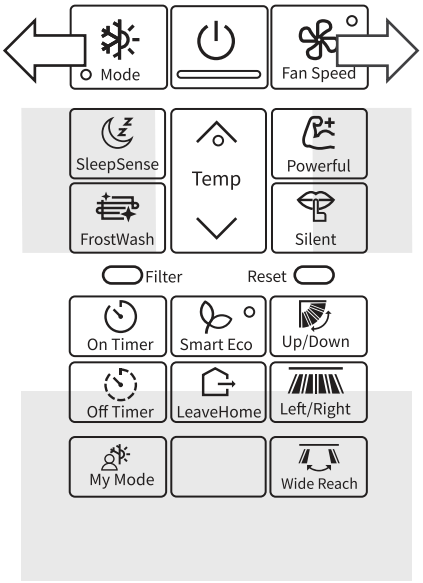
9.2. HOW TO SET UP FROM SERVICE SETTING MODE

The Service function, which was set by DIP-SW setting or double pressing of the HHRC in the current model. it will be done by HHRC in GRAC as shown as below.

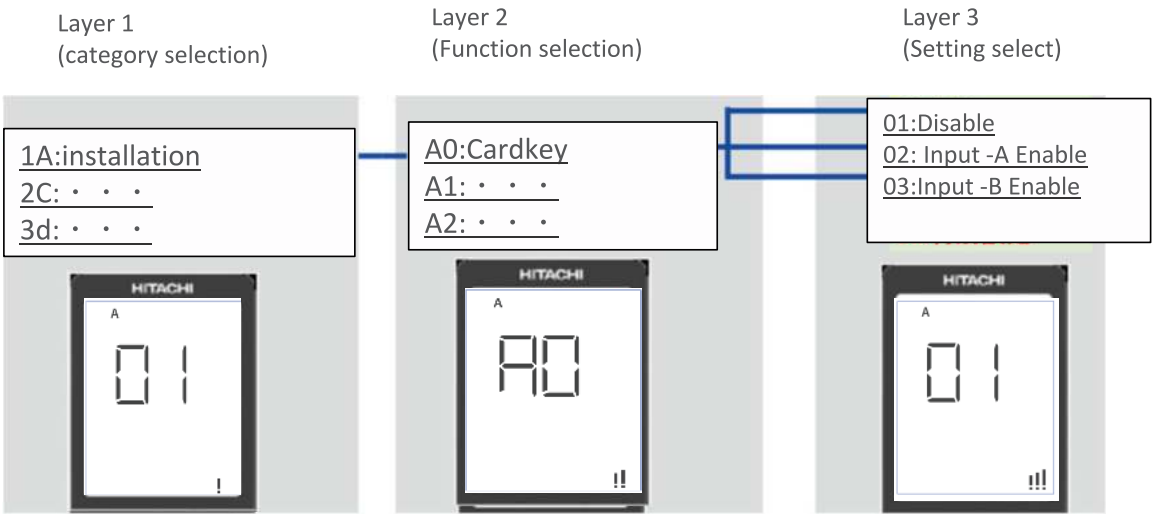


※ If you don't do anything for 30 seconds, you will be out of the service setting mode.

9.3. HOW TO OPERATE THE HHRC METHOD



Temp△▽ : Selection (in the same layer)
Mode : move to previous layer
Fan Speed : Move to next layer
ON/OFF : Decision/Send (at layer 3)
: Current setting check(at layer 2)
Filter: category initialization(at layer 1)
Filter + ON/OFF: all category initialization(at layer 1)
※ To exit from this setting mode, you need to either not operate the HHRC panel for 30 seconds or press and hold the UP/Down key for 5 seconds.



9.4. SERVICE SETTING ITEM USED FOR NA ENTRY

Category	Function Name	Value	HHRC LCD display Layer1 Category	Layer2 Function	Layer3 Value	L1 (Category)
Installation	Card Key	Disable	1A	A0	01	1A Installation
		Card Key Input -A Enable			02	2C Clean
		Card Key Input -B Enable			03	3d cycle operation adjustment
		reserve			04-99	4E Fan control
	Mode Lock	Normal Mode	1A	A1	01	5F supporting service
		Cooling Lock (Cool, Dry, Fan mode available)			02	6H HHRC
		Heating Lock (Heat and Fan mode available)			03	7J Diagnosis
		reserve			04-99	8L Future
	Auto restart	auto restart changeover disable	1A	A2	01	
		auto restart by previous mode			02	
		reserve			03-99	
Cycle operation	Defrost selection Function	average area setting	3d	E0	01	L1 (Category)
		cold area setting			02	1A Installation
		reserve			03-99	2C Clean
	Shift value adjustment of setting temperature (Cool Mode, Heat Mode)	(-5° C/-10° F)	3d	E1(Cool)/E2(Heat)	01	3d cycle operation adjustment
		(-4°C/-8°F)			02	4E Fan control
		(-3°C/-6°F)			03	5F supporting service
		(-2° C/-4° F)			04	6H HHRC
		(-1° C/-2° F)			05	7J Diagnosis
		(±0° C/±0° F)			06	8L Future
		(+1° C/2° F)			07	
		(+2° C/4° F)			08	
		(+3° C/6° F)			09	
		(+4° C/8° F)			10	
		(+5° C/10° F)			11	
		reserve			12-99	
Cycle operation	IDU fan control at cooling thermo-off	ultra low	3d	E3	01	L1 (Category)
		set fan speed			02	1A Installation
		reserve			03-99	2C Clean
HHRC	Temperature Resolution change - 0.5 --> 1	0.5 ° C	6H	P0	01	3d cycle operation adjustment
		1° C			02	4E Fan control
	Fan Speed key sequence	Auto-Silent - Low-Med-Hi-Super Hi		P1	01	5F supporting service
		Super Hi-Hi-Med-Lo-Silent -Auto			02	6H HHRC
	Operation Mode : Auto	Disable Selection on HHRC		P2	01	7J Diagnosis
		Enable Selection on HHRC			02	8L Future
	Operation Mode : Cool	Disable Selection on HHRC		P3	01	
		Enable Selection on HHRC			02	
	Operation Mode : Dry	Disable Selection on HHRC		P4	01	
		Enable Selection on HHRC			02	
	Operation Mode : Fan	Disable Selection on HHRC		P5	01	
		Enable Selection on HHRC			02	

9.4. SERVICE SETTING ITEM USED FOR NA ENTRY (CONTINUE)

Category	Function Name	Value	HHRC LCD display Layer1 Category	Layer2 Function	Layer3 Value	L1 (Category)
						1A Installation
						2C Clean
HHRC	Operation Mode : Heat	Disable Selection on HHRC	6H	P6	01	3d cycle operation adjustment
		Enable Selection on HHRC			02	4E Fan control
	Auto Fan speed : Enable / Disable	Disable Selection on HHRC		P8	01	5F supporting service
		Enable Selection on HHRC			02	6H HHRC
	Super hi Fan speed : Enable / Disable	Enable Selection on HHRC		P9	01	7J Diagnosis
		Disable Selection on HHRC			02	8L Future
HHRC	Cooling Lower limit setting	60°F (16°C)	6H	PC	01	L1 (Category)
		62°F (17°C)			02	1A Installation
		64°F (18°C)			03	2C Clean
		66°F (19°C)			04	3d cycle operation adjustment
		68°F (20°C)			05	4E Fan control
		70°F (21°C)			06	5F supporting service
		72°F (22°C)			07	6H HHRC
		74°F (23°C)			08	7J Diagnosis
		76°F (24°C)			09	8L Future
		77°F (25°C)			10	
		78°F (26°C)			11	
		80°F (27°C)			12	
		82°F (28°C)			13	
		84°F (29°C)			14	
		86°F (30°C)			15	
		88°F (31°C)			16	
		90°F (32°C)			17	
HHRC	Heating Upper limit setting	90°F (32°C)	6H	Pd	01	L1 (Category)
		88°F (31°C)			02	1A Installation
		86°F (30°C)			03	2C Clean
		84°F (29°C)			04	3d cycle operation adjustment
		82°F (28°C)			05	4E Fan control
		80°F (27°C)			06	5F supporting service
		78°F (26°C)			07	6H HHRC
		77°F (25°C)			08	7J Diagnosis
		76°F (24°C)			09	8L Future
		74°F (23°C)			10	
		72°F (22°C)			11	
		70°F (21°C)			12	
		68°F (20°C)			13	
		66°F (19°C)			14	
		64°F (18°C)			15	
		62°F (17°C)			16	
		60°F (16°C)			17	
Diagnosis	Display self-diagnosis memory(※)	Display History 1 (Latest(newest) of last Five)	7J	t0	01	L1 (Category)
		Display History 2			02	1A Installation
		Display History 3			03	2C Clean
		Display History 4			04	3d cycle operation adjustment
		Display History 5			05	4E Fan control
		reserve			06-99	5F supporting service
	Display ODU self-check result	request		t1	01	6H HHRC
		reserve			02-99	7J Diagnosis
	Erase self-diagnosis memory(※)	request		t2	01	8L Future
		reserve			02-99	
	Humidity sensor failure diagnosis	request		t3	01	
		reserve			02-99	

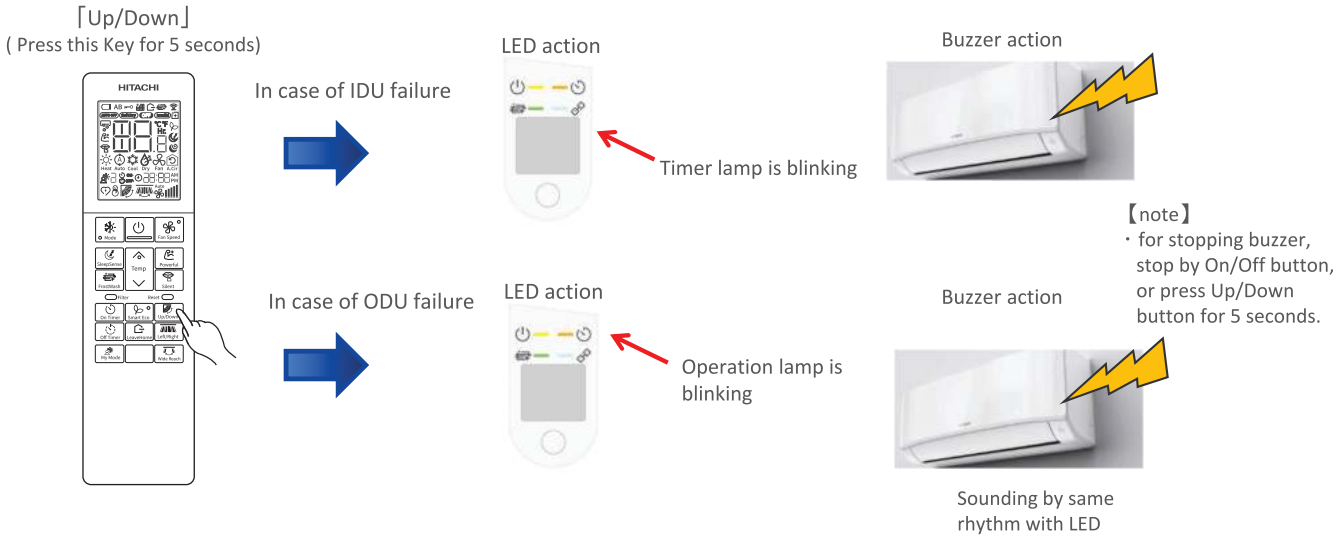
9.5. BUZZER SOUNDING FOR SHOWING ERROR CONTENTS

【Purpose】

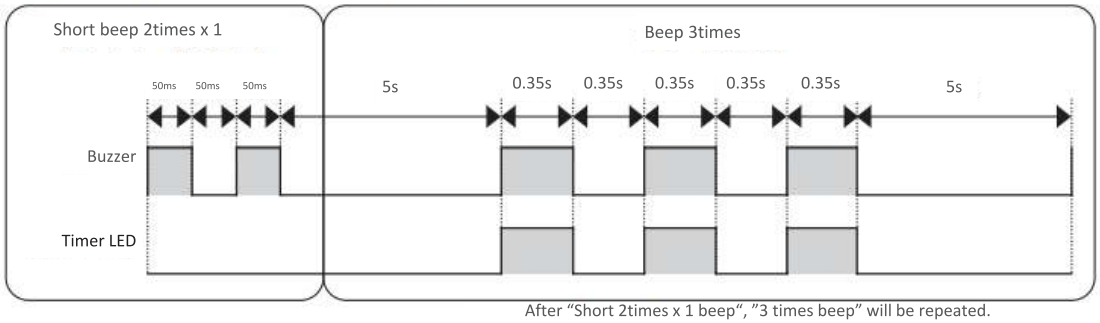
Reduction of “mis-communication about error contents" at contacting the service call center.【Function】

Add buzzer sounding for showing error contents during error, in addition to IDU LED action .【How to use】

When IDU or ODU has failed, and the Timer lamp is blinking. Service engineer can know error contents from the buzzer through phone.

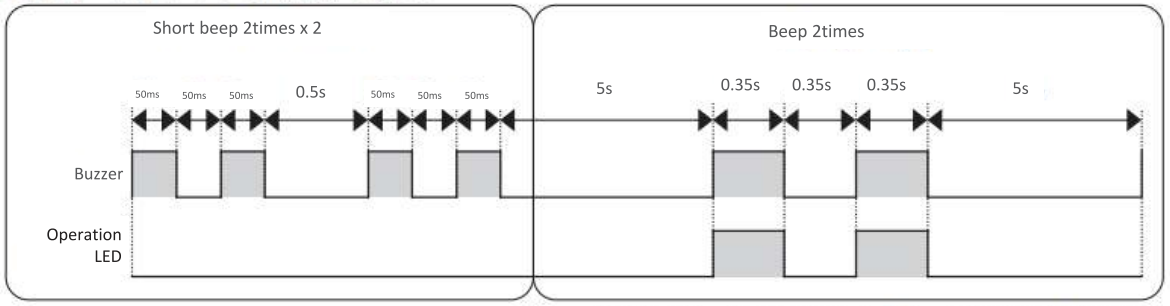


<IDU error example: timer LED will blink 3 times(interface defective(IDU) >



After “Short 2times x 1 beep“, ”3 times beep” will be repeated.

<ODU error example: operation LED will blink 2 times(peak current cut) >



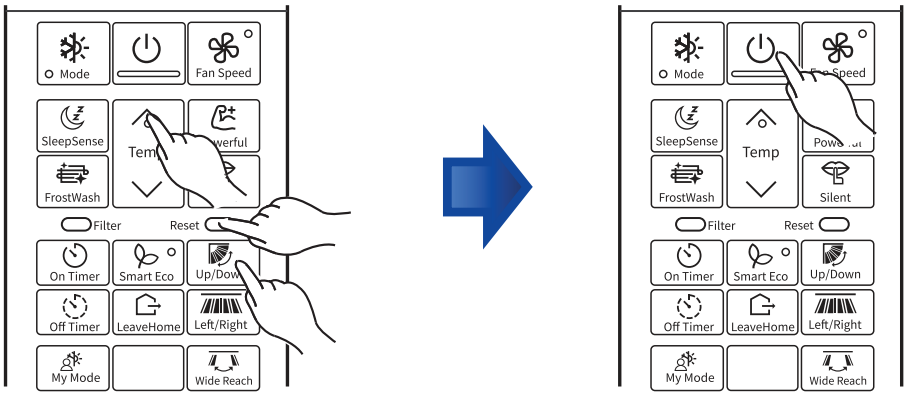
After “Short 2times x 2 beep“, ”2 times beep” will be repeated.

9.6. OTHER SETTING

▪ ID SELECTION

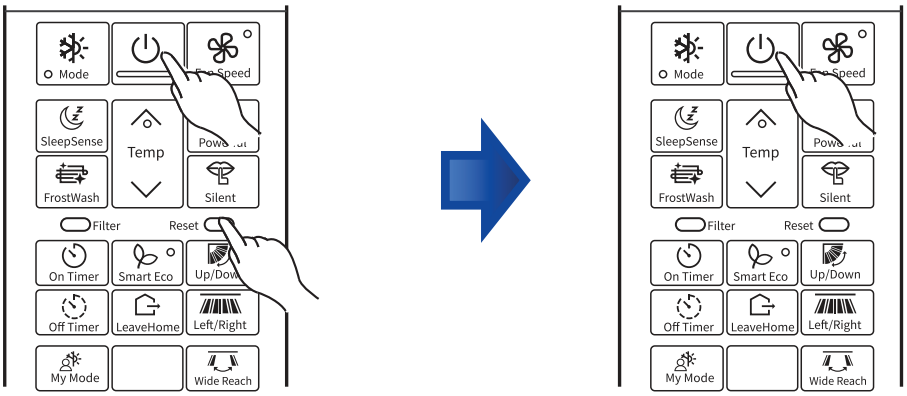
1. Press “Up/Down swing button” and “set. Temp. up button” and “reset button”, and release “reset button”.
2. Select from A or B by pressing “set.temp. button”.
3. Press “On/Off button” toward IDU.

(EEPROM in HHRC will keep the A or B information.)



▪ DISPLAY MODE

1. Press “On Timer button” and “On/Off button” and “reset button”, and release “reset button”.
2. Fan speed icon( ) on LCD will blink.
3. Press “On/Off button” toward IDU.



9.7. ERROR CODE INFORMATION

9.7.1. HOW TO DISPLAY ERROR CODE

1. Press three key ([On Timer] + [Fan Speed] + [Reset]) button on the remote control for 5 seconds to avoid access by User.
2. Press " 

" (Temperature) button of the remote control and select the "7J" option.
3. Press " 

" (Fan Speed) button of the remote control, then Press " 

" (Temperature) button select the "t0" option.
4. Press " 

" (Fan Speed) button of the remote control, then Press " 

" (Temperature) button select the "01" option.
5. Press " 
" (On/Off) button of the remote

Function Name	Value	Layer1	Layer2	Layer3
		Category	Function	Value
Display self-diagnosis memory(※)	Display History 1 (Latest(newest) of last Five)	7J	t0	01
	Display History 2			02
	Display History 3			03
	Display History 4			04
	Display History 5			05

CONTROL AND FUNCTION

The specific information of error code is shown in the table below:

	TIMER LAMP BLINKING	LD301 BLINKING	CODE	MEANING
INDOOR	–	–	000 00	Normal
	1 time	–	001 00	Refrigerant cycle fault
	2 times	–	–	Outdoor unit is under forced operation
	3 times	9 times	003 00	Communication error (indoor)
	9 times	–	009 00	Indoor thermistor defective
	10 times	–	003 00	Abnormal rotating numbers of DC fan motor
	12 times	9 times	012 00	Communication error (outdoor)
	13 times	–	013 00	EEPROM data reading error
	20 times	–	020 00	Human sensor defective
	21 times	–	021 00	Interface defective (other machine cause)
	25 times	–	025 00	CN7A/B connection defective

	OPERATION LAMP BLINKING	CODE	MEANING
INDOOR	2 times	002 01	Peak current cut
	3 times	003 01	Compressor abnormal low speed rotation
	4 times	004 01	Compressor switching failure
	5 times	005 01	Overload lower limit cut
	6 times	006 01	OH thermistor temperature rise
	7 times	007 01	Abnormal outdoor thermistor
	9 times	009 01	Communication error
	10 times	010 01	Abnormal power source
	11 times	011 01	Fan stop for strong wind
	12 times	012 01	Fan motor fault
	13 times	013 01	EEPROM reading error
	14 times	014 01	DC Voltage abnormal
	15 times	015 01	Abnormal PWB circuit
	16 times	016 01	High load stop

9.7.2. HOW TO REMOVE ERROR CODE

6. Press three key ([On Timer] + [Fan Speed] + [Reset]) button on the remote control for 5 seconds to avoid access by User.
7. Press “ 

” (Temperature) button of the remote control and select the “7J” option.
8. Press “ 

” (Fan Speed) button of the remote control, then Press “ 

” (Temperature) button select the “t2” option.
9. Press “ 

” (Fan Speed) button of the remote control, then Press “ 

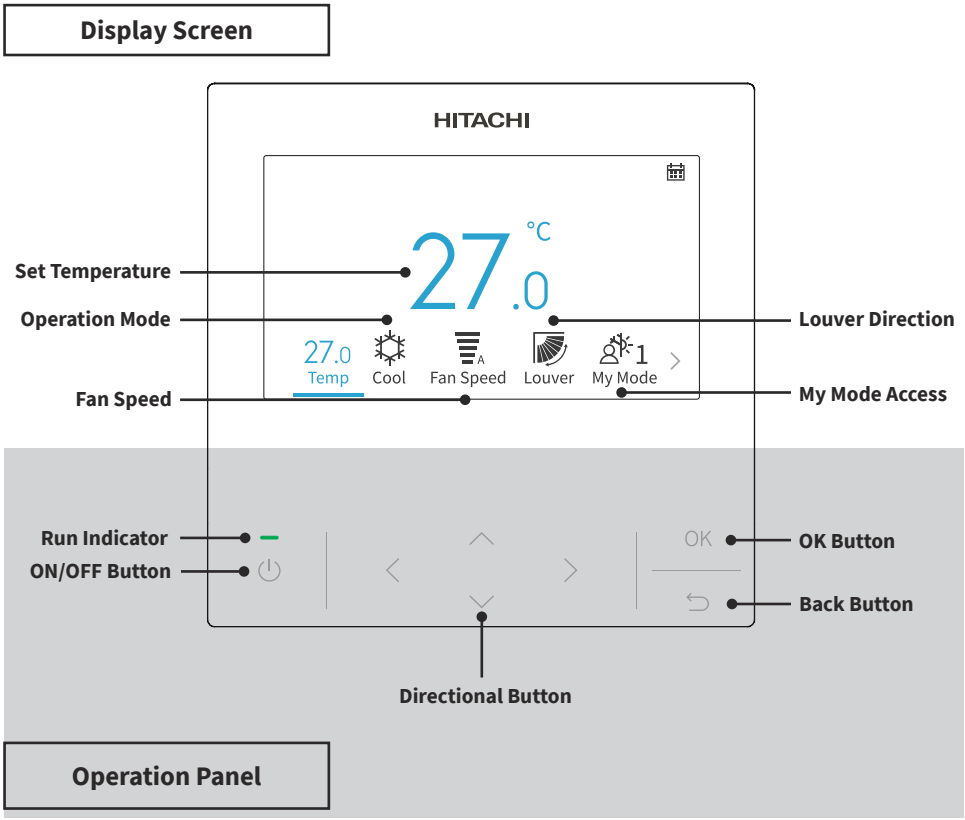
” (Temperature) button select the “01” option.
10. Press “ 
” (On/Off) button of the remote

10 OPTION LIST

10 WIRED REMOTE CONTROL FUNCTIOND SPX-URFG1

10.1 Setting Names and Functions

The figure below shows all the functions for reference. The actual display during operation is different.



NOTES:

- If the screen is off or the backlight is dim, press any button to re-energise the screen.
- Make sure to press the buttons lightly with your fingertips.
- Do NOT press the buttons with any sharp objects as it may damage the button.

10.1.1 Operation Method

Basic Procedures

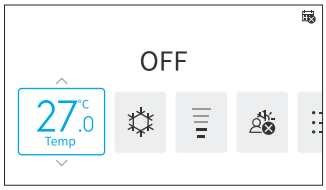
1. Initialisation screen

   When power is supplied to the system, the screen below is displayed when the wired remote controller is establishing communication with the indoor unit.

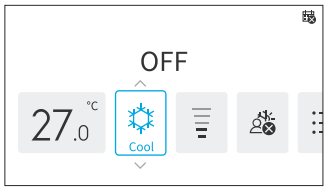
2. Air Conditioner OFF

   When air conditioner is off, press "<" or ">" to switch between the settings below: "Temperature" ↔ "Mode" ↔ "Fan Speed" ↔ "My mode" ↔ "Menu".(The louver/Swing icon is not displayed when the system is turned off.)

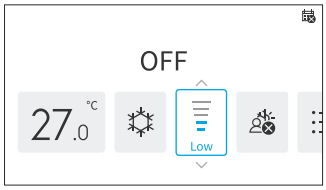
Temperature



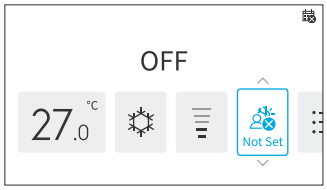
Mode



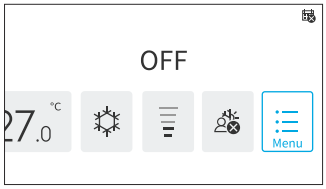
Fan Speed



My mode



Menu

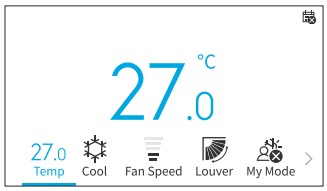


3. Air Conditioner ON

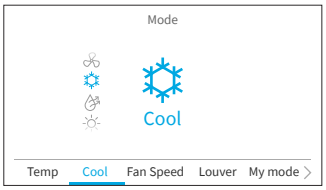
When air conditioner is on, press "<", or ">" to switch between the settings below:
"Temperature" ↔ "Mode" ↔ "Fan Speed" ↔ "Louver"/"Swing"* ↔ "My mode" ↔ "Menu".

*: The display of "Louver" or "Swing" depends on the indoor unit models.

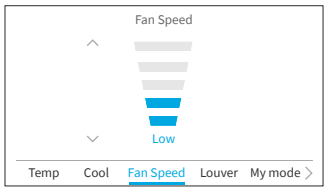
Temperature



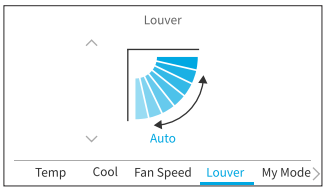
Mode



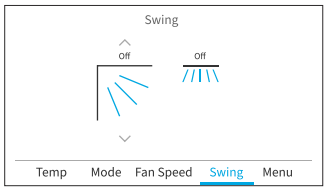
Fan Speed



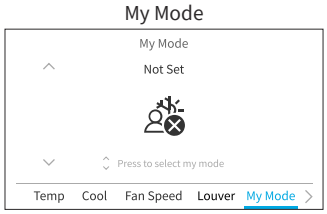
Louver



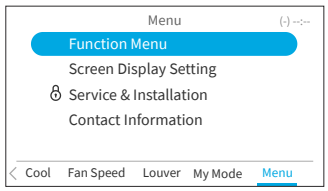
Swing



My Mode



Menu

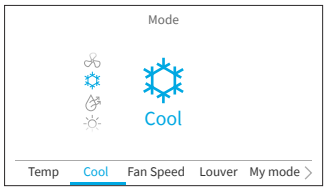


Operation Mode

Heat mode is only available when the system is capable of both cooling and heating. The Heat icon is not displayed on cooling only systems.

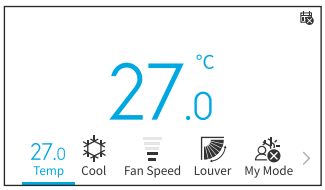
1. Operation mode setting

Step1. Press "<" or ">" to select "Mode".

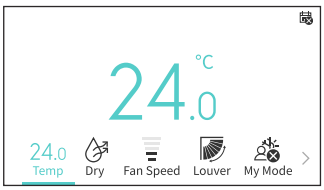


Step2. Set the operation mode with "∧" or "∨". The operation mode is switched in the following order:
"Cool" ↔ "Dry" ↔ "Heat" ↔ "Auto" ↔ "Fan"

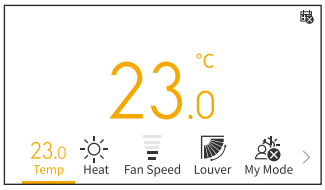
Cool Mode



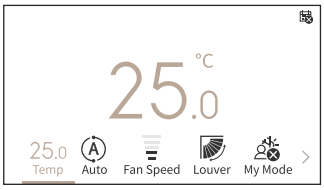
Dry Mode



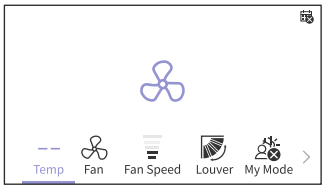
Heat Mode



Auto Mode



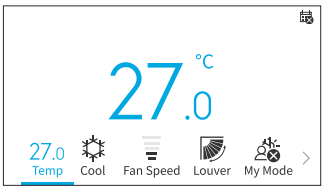
Fan Mode



Temperature Setting

1. Temperature setting

Step1. Press "<" or ">" to select "Temp".



Step2. By pressing "∧", the temperature is increased in increments of 0.5°C(1°F) to a maximum of 32°C(90°F) .
By pressing "∨", the temperature is decreased in decrements of 0.5°C(1°F) to a minimum of 16°C(60°F).
In Leave Home mode, the setting temperature range is 10°C(50°F) to 16°C(60°F).

NOTES:

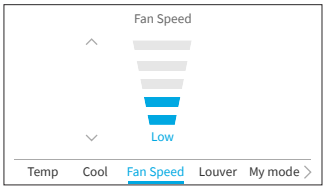
- Depending on the type and setting of the indoor unit, it may not be possible to set the temperature by 0.5°C.
- Cooling and heating set temperature ranges can be restricted through the Service menu.
- Contact your Hitachi service agent for assistance with setting the "Temperature Range Restriction" functions.

OPTION LIST

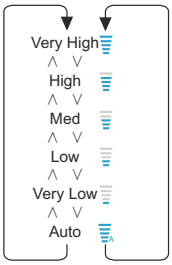
Fan Speed Setting

1. This function is used to set fan speed.

   Step1. Press "<" or ">" and select "Fan Speed".



   Step2. By pressing "∧" or "∨", the fan speed changes as follows.



NOTES:

- During Dry operation, the fan speed can only be changed to "Very Low", "Low" and "Auto".
- During Fan mode, "Auto" fan speed is not available.
- The number of Fan Speed level may change depending on indoor unit models.

OPTION LIST

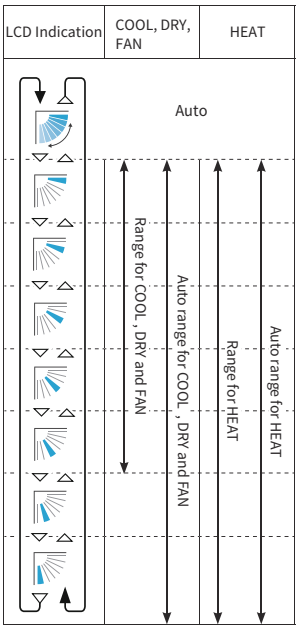
Louver/Swing Direction

1. The air flow direction displays as "Louver" style or "Swing" style depending on indoor unit model.
2. This function is used to set the louver/swing direction and is only applicable to indoor units that have an oscillating louver/swing.

Louver

Step1. Press "⏻" (On/Off). Make sure that the air conditioner is ON. Press "<" or ">" and select "Louver".

Step2. By pressing "∧" or "∨", the louver direction changes as below diagram, and the direction of different types of louver is displayed differently.



: Auto operation is active. At this time, the louver swings repeatedly on the LCD.

NOTES:

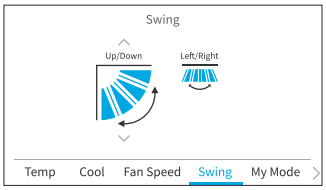
- The louver position on the LCD and the actual louver position may not match during the Auto-Swing.
  To set the louver positions, set the angle after checking the position on the LCD.
- The louver may NOT stop immediately after the button is pressed.

OPTION LIST

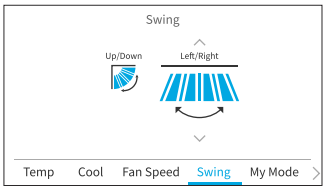
Swing

Step1. Press "⏻" (On/Off). Make sure that the air conditioner is ON. Press "<" or ">" and select "Swing".

Step2. By pressing "^" or "v", the swing direction changes between "Up/Down" and "Off".



Step3. Press ">" to move the focus to the "Left/Right". By pressing "^" or "v", the swing direction changes between "Left/Right", "Wide Reach" and "Off".



NOTES:

- "Wide Reach" is available only if the indoor unit supports wide air flow feature.
- Left/right swing setting may not be available depending on indoor unit model.

OPTION LIST

My Mode

My mode offers swift configuration by allowing users to choose from pre-set options based on their preferences. Users can configure up to three modes, adjusting settings such as temperature, operation mode, fan speed, louver direction, and ON/OFF timer for each mode.

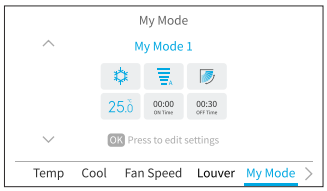
If My Mode is enabled in Function Menu(refer to **"6.12 My Mode Setting"**), press "<" or ">" to select "My Mode" on home screen.

NOTES:

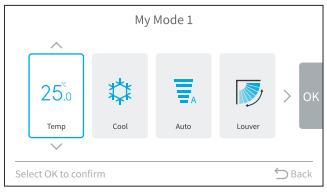
- When My Mode 1/My Mode 2/My Mode 3 is selected, "Simple Timer“ in Function Menu will be disabled.
- When "GoodSleep Timer" or "Leave Home" is set, "My Mode"is changed to "Not Set" automatically.

a. When the air conditioner is ON

Step1. Press "∧" or "∨" to switch the mode selection as follow:
"Not Set" ↔ "My Mode 1" ↔ "My Mode 2"↔ "My Mode 3".
Press "OK" to change the detailed settings of My Mode.



Step2. Press "<" or ">" to select the setting item, then press "∧" or "∨" to change the setting of each item.

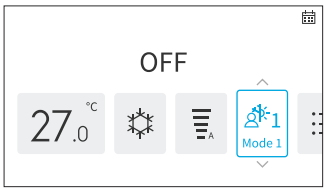


NOTE:

- The "ON Time"/"OFF Time" on My Mode 1/My Mode 2/My Mode 3 screen is the ON/OFF time of Simple Timer. The air conditioner will be turned ON/OFF every day according to this setting.

b. When the air conditioner is OFF

Step1. Press "∧" or "∨" to switch the mode selection as follow:
"Not Set" ↔ "My Mode 1" ↔ "My Mode 2"↔ "My Mode 3"
To change the detailed mode setting, please go to "My Mode" in "Function Menu".



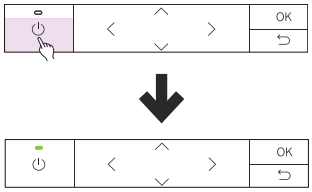
OPTION LIST

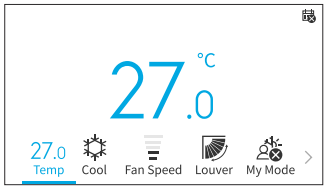
Operation

Operation Start

1. To turn the system on.

Step1. Press "⏻" (On/Off).
→ The run indicator LED turns on and the operation starts.

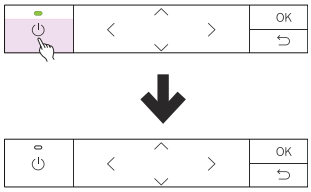


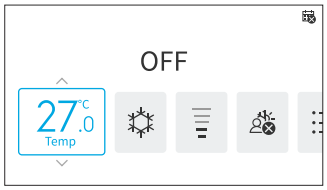


Operation Stop

1. To turn the system off.

Step1. Press "⏻" (On/Off).
→ The run indicator turns off and the operation stops.





NOTE:

- After the heating operation is stopped, the fan may continue to run for about 2 minutes to dissipate residual heat within the unit.

OPTION LIST

Icon Description

The status of the wired remote controller is displayed on the operation screen.

NOTES:

- It may not be displayed depending on the type of outdoor unit or indoor unit you are using.
- If there are multiple status, the high priority icon is displayed first.

No.	Icon	Description
1		A schedule timer is set.
2		The current time has not been set. Schedule timer operation is not possible.
3		The keypad is locked.
4		The operation lock is set.
5		Displayed when using the central wired remote controller. Control through the wired remote controller may be restricted depending on the settings of the central wired remote controller.
6		The FrostWash cycle is due to be run.
7		It is time to clean the air filter.
8		Displays the room temperature.
9		GoodSleep timer is activated.
10		SleepSense is activated.
11		Powerful operation starts.
12		Leave Home is set.
13		Silent is set.
14		Internal clean is set.
15		Ioniser Aqtiv-Ion is set.
16		ECO Auto-Off is in operation.
17		Standard ECO mode operation is set.
18		Powersafe mode is set.
19	External Device	Displayed when Forced Cooling is running or WRC is controlled by external device, e.g. central wired remote controller.
20	Forced Cooling	Displayed when Forced Cooling is running.
21	Central Control	Displayed when using the central controller. Remote controller operation is restricted.

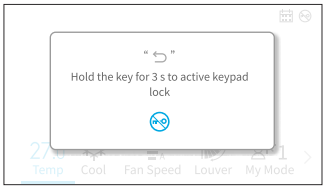
OPTION LIST

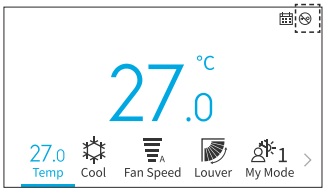
No.	Icon	Description
22	Change the Gas Leak Sensor	Displayed when gas sensor lifespan is run out and to remind replacement of gas sensor. Each of blow messages display for 1 second with below order, then repeat from No.1 message: 1. Change the Gas Leak Sensor 2. Check Contact Info. in menu list 3. Blank
	Check Contact Info. in menu list	
	Blank	

Keypad Lock

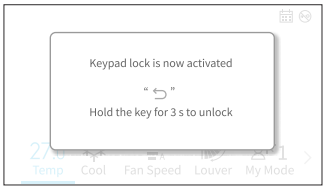
This function is to lock all touch key on home screen.

Step1. On Home off/on screen, press and hold "⮌" for 3 seconds to active keypad lock. The icon "⊗" shows on the home screen to indicate that the keypad is locked.

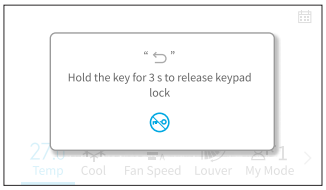




Step2. During keypad lock, a reminder is pop upped if press any buttons.



Step3. To release the keypad lock, press and hold "⮌" for 3 seconds and the icon "⊗" disappeared.



NOTE:

- Keypad lock function only can be activated and deactivated on home screen.

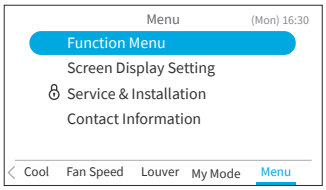
10.2 Menu Operation

Menu Operation

NOTES:

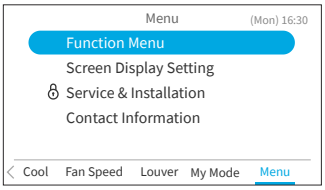
- If "⃠" is displayed and grayed out, these functions are not available and cannot be set.
- Once the indoor unit connected with wired remote controller is changed, the previous setting data on the controller must be cleared first. For clear details, please refer to **"Remote Controller auto-test"** on service manual.

Press "<" or ">" at home screen to select "Menu".

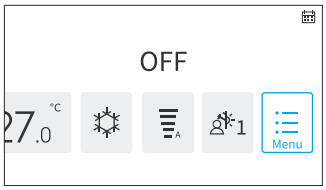


When the air conditioner is ON:

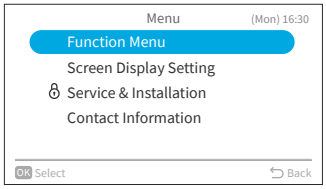
- The "Menu" screen is displayed.



When the air conditioner is OFF:



- Select "Menu" and press "OK".
- The "Menu" screen is displayed.



- About the Function Menu, please refer to **"6. Function Menu Screen Display"**.
- About the Display Settings, please refer to **"7. Screen Display Setting"**.

10.3 Function Menu Screen Display

Function Menu Screen Display

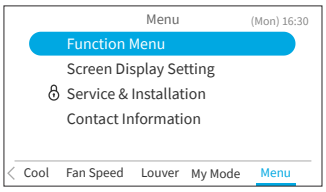
Various function settings are shown in this chapter.
For how to enter the Menu screen, please refer to **"5. Menu Operation"**.

NOTES:

- Some functions cannot be set depending on the type, configuration, and usage status of the indoor unit.
- If a function with "⃠" is displayed, it means that the function setting is disabled to be changed.

1. Display the function menu

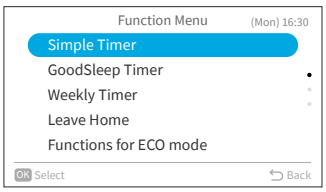
Step1. Select the "Function Menu" and press "OK".
→ The "Function Menu" screen is displayed.



Step2. Press "∧" or "∨" to select the item to set and press "OK".

Press "⮌" to return to the "Menu" screen.

- If the "Function Menu" screen remains unchanged for approximately 10 minutes, the screen returns to the home screen.
- Various settings are retained even when the power is turned off.



Simple Timer

This function is used to start or stop the unit operation at the set time within one day.
The timer operation contents can be set from "Not Used", "Once", or "Everyday".

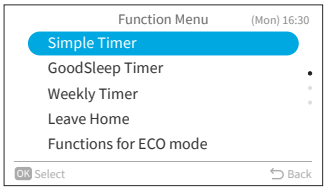
NOTES:

- If "Once" on the timer operation setting is selected, the setting reverts automatically to "Not Used" after the "Once" timer program has been executed.
- Do not set the same time for both ON/OFF timers.
- Scheduled operation (stop) is not possible while the remote control is prohibited.
- When "" is displayed, scheduled operation (stop) is not available.
- Refer to **" Adjusting Date/Time"** to set the date and time.
- The timer is controlled by this wired remote controller.
- The timer lamp of indoor unit does not turn on.
- During "Simple timer" operation, if "Leave Home" or "GoodSleep Timer" operation is started, the setting will be automatically changed to "Not Used".
- "Simple Timer" cannot be set in "Leave Home" or "GoodSleep Timer" operation.

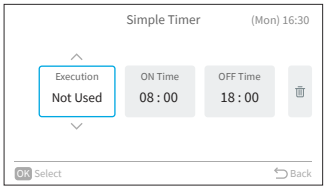
OPTION LIST

1. Set the simple timer.

Step1. Select "Simple Timer" on the "Function Menu" screen and press "OK".
When the current time has not been set yet, the "Adjusting Date/Time" setting screen is displayed.

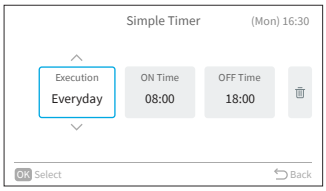


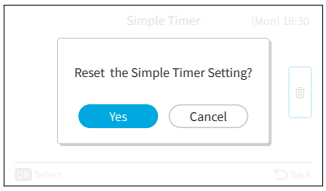
Step2. Press "<" or ">" to select the item to be set:
"Execution" ↔ "ON Time" ↔ "OFF Time" ↔ "🗑".



Step3. Press "∧" or "∨" to set each item.
After setting, press "⮌" to confirm the settings and the screen returns to the "Function Menu" screen.

- When "Execution" is selected,
  press "∧" or "∨" to switch the setting items as follows:
  "Not Used": the on and off time of the system will not be executed.
  ↔ "Once": the on and off time of the system will be executed for one time.
  ↔ "Everyday": the on and off time of the system will be executed everyday.
- When "ON Time" or "OFF Time" is selected, the setting time can be adjusted in 10-minute increments by pressing "∧" or "∨".
- When "🗑" is selected and press "OK", the confirmation screen is displayed.
  If you select "Yes", the simple timer settings are discarded and the screen returns to Step2.
  If you select "Cancel", the screen still returns to Step2.





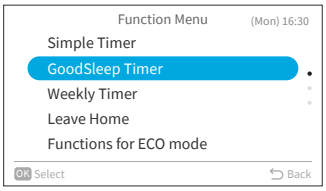
OPTION LIST

GoodSleep Timer

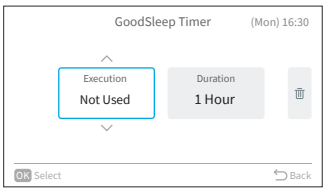
This function is Off Timer operation to stop the operation if preset time has passed when you sleep.

1. Set the GoodSleep Timer.

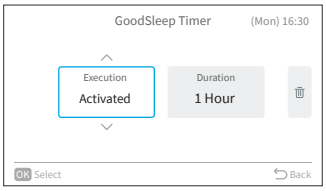
Step1. Select "GoodSleep Timer" on the "Function Menu" screen and press "OK".
When the current time has not been set yet, the "Adjusting Date/Time" setting screen is displayed.



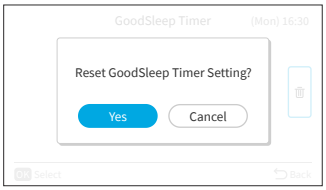
Step2. Press "<" or ">" to select the item to be set:
"Execution" ↔ "Duration" ↔ "🗑".



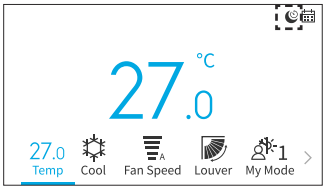
Step3. Press "∧" or "∨" to set each item.
After setting, press "⮌" to confirm the settings and the sleep timer operation will be started, the screen returns to the "Function Menu" screen.



- When "Execution" is selected, press "∧" or "∨" to switch the setting items as follows:
  "Not Used" ↔ "Activated".
- When "Duration" is selected, the duration time can be adjusted: 1↔2↔3↔7.
- When "🗑" is selected and press "OK", the confirmation screen is displayed.
  If you select "Yes", the GoodSleep Timer settings are discarded and the screen returns to Step2.
  If you select "Cancel", the screen still returns to Step2.



- After GoodSleep timer is activated, you will see an icon "🕒" displayed on the home screen.



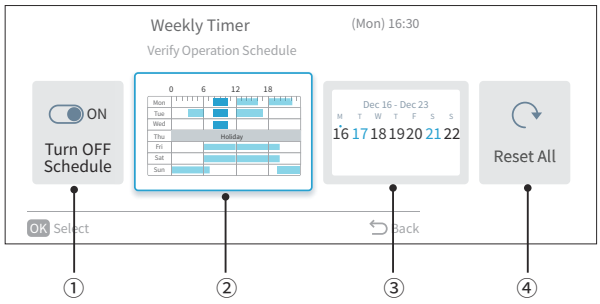
OPTION LIST

NOTES:

- You can set the time of the GoodSleep timer operation within the time range before "ON Time"(Simple Timer) preset time.
- When the timer is set, this wired remote controller will send the sleep timer information to indoor unit and the timer lamp of indoor unit turns on.
- "GoodSleep Timer" cannot be set or will be cancelled if "Leave Home" is set.
- If "GoodSleep Timer" is set, "Powerful", "SleepSense" and "Silent" will be cancelled.
- If "GoodSleep Timer" is set, "Simple Timer" and "Weekly Timer" setting cannot be set, but the preset "ON Time" of Simple Timer and Weekly Timer are still valid.

Weekly Timer

This function is used to automatically start or stop the unit operation at the set time.
The temperature can also be set.
Up to 5 schedules can be set for each day of the week.



① Schedule turn ON/OFF setting (Page 22)
This function is used to enable or disable the operation schedules. If disabled-Turn OFF Schedule, the operation schedules are not executed - for example, during extended holidays.

② Schedule day and time setting (Page 23)
The desired time and temperature can be set.
Set up to 5 schedules per day.

③ Schedule holiday setting (Page 24)
Holidays can be set six days in advance.
On the days set as holidays, scheduled operation is not executed for the entire day.
It is used when there are irregular off days such as holidays.

④ Reset setting (Page 25)
The schedule day/time setting and holiday setting are deleted.

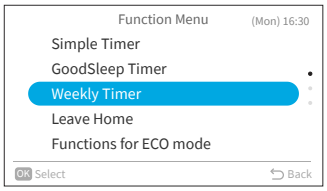
OPTION LIST

Schedule Turn ON/OFF Setting

1. Set schedule ON / OFF

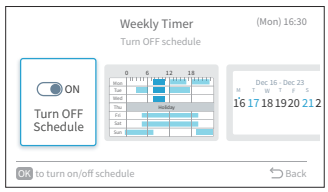
Step1. Select "Weekly Timer" on the "Function Menu" screen and press "OK".

- If the current time is not set, the "Adjusting Date/Time" setting screen is displayed.
- If no schedule or holiday has been set, Step3 of 6.3.2 is displayed.

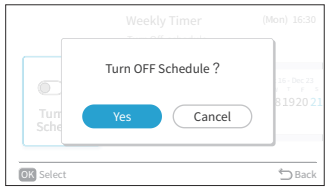


Step2. Press "<" or ">" to select "Turn ON/OFF Schedule", and then press "OK".

- When the schedule is ON, "Turn OFF Schedule" confirmation screen is displayed. When schedule is OFF, "Turn ON Schedule" confirmation screen is displayed.



Step3. Select "Yes" by pressing "<" or ">"and then press "OK".
→ Confirm the schedule enable/disable setting and return to Step2.
→ The indicator "" turns on when the schedule is ON.
→ The indicator "" turns off when the schedule is OFF.



OPTION LIST

Schedule Day and Time Setting

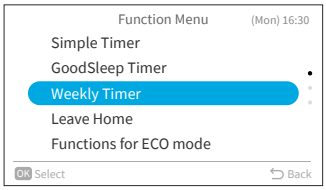
NOTES:

- Scheduled operation (stop) is not possible when the remote control is prohibited.
- When "" is displayed, scheduled operation (stop) is not available.
- Refer to **" Adjusting Date/Time"** to set the date and time.

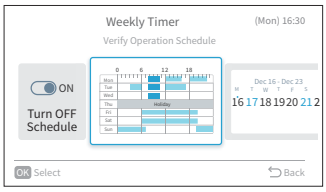
1. Set schedule day and time

Step1. Select "Weekly Timer" on the "Function Menu" screen and press "OK".

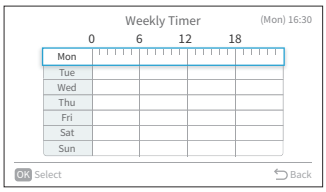
- If the current time is not set, the "Adjusting Date/Time" setting screen is displayed.
- If no schedule or holiday has been previously set, Step3 is displayed.



Step2. Press "<" or ">" to select "Verify Operation Schedule", and then press "OK".

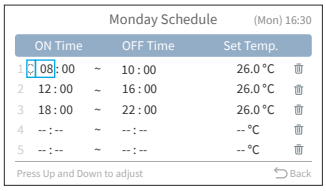


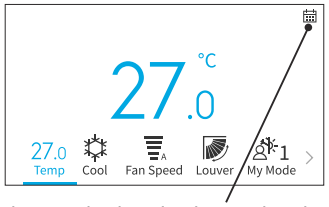
Step3. Select the day of the week (from Mon. to Sun.) to be set with "∧" or "∨", and press "OK".



Step4. Press "∧" or "∨" to select schedule timer No.1 to No.5, and press "<" or ">" to select "ON Time" ↔ "OFF Time" ↔ "Set Temp."↔ "". By pressing "∧" or "∨", "ON / OFF Time" and "Set Temp." can be set.

- 5 different schedule timers (maximum) can be set for each day of the week.
- Press "OK" to display the schedule time setting screen for the next day of the week.
- Select "" and press "OK" to delete the settings of "ON / OFF Time" and "Set Temp".
  Press "" to return to Step3.



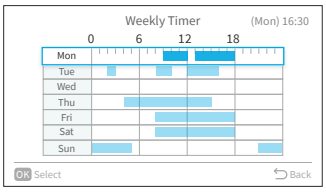


The icon displayed indicates that the weekly timer is set and activated.

OPTION LIST

Function Menu Screen Display

Step5. "■"(operation) and "□"(stop) are displayed on the screen.
To copy the setting contents of the previous day, press "<" and "OK" simultaneously. Select the other day and press "<" and "OK" simultaneously again to paste the copy based schedule.



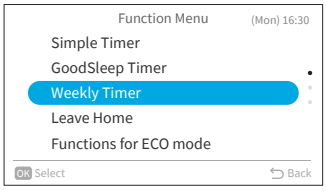
Schedule Holiday Setting

NOTES:

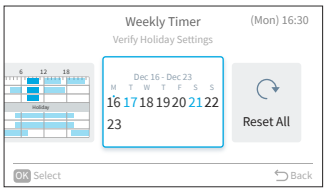
- Holiday period can be set to avoid running the weekly timer setting during this period.
- Holiday period is defined by day.
- The schedule icon is not displayed if the current day is set as holiday.

1. Set schedule holiday

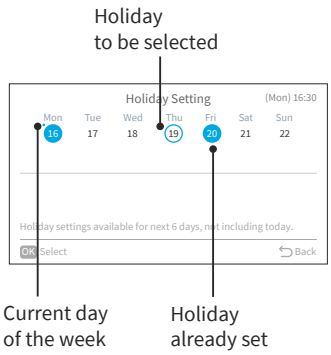
Step1. Select "Weekly Timer" on the "Function Menu" screen and press "OK".
- If the current time is not set, the "Adjusting Date/Time" setting screen is displayed.
- If no schedule or holiday has been set, Step3 is displayed.



Step2. Press "<" or ">" to select "Verify Holiday Settings", and then press "OK".



Step3. Select the day of the week (from Mon. to Sun.) to set as a holiday by pressing "^" "v" "<" or ">".
Press "OK" to select "Holiday setting" or "Cancel".
"●" indicates the current day of the week.
"O" indicates the holiday to be selected.
"⬤" indicates the holiday already set.
Press "⮌" to confirm the setting and return to Step2.



OPTION LIST

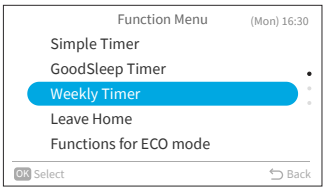
Function Menu Screen Display

Reset the Setting

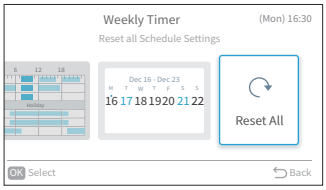
1. Reset the setting

Step1. Select "Weekly Timer" on the "Function Menu" screen and press "OK".

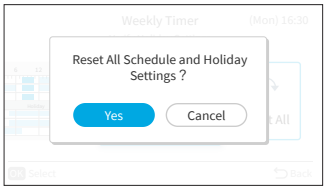
- If the current time is not set, the "Adjusting Date/Time" setting screen is displayed.
- If no schedule or holiday has been set, Step3 of **" Schedule Day and Time Setting"** is displayed.



Step2. Press "<" or ">" to select "Reset All" and then press "OK".



Step3. Select "Yes" by pressing "<" or ">"and then press "OK".
All schedule and holiday settings are reset, and the screen returns to Step3 of **"Schedule Day and Time Setting"**.



OPTION LIST

Function Menu Screen Display

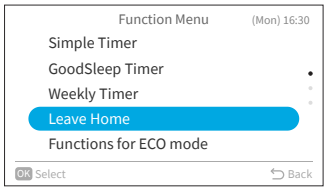
Leave Home

Prevent the room temperature from falling too much when no one is at home. The initial setting temperature is 10°C and the temperature range can be set between 10°C and 16°C.

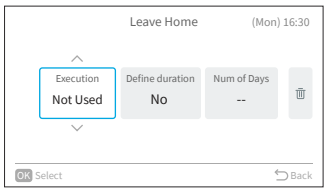
1. Set the Leave Home.

Step1. Select "Leave Home" on the "Function Menu" screen and press "OK".

- If the current time is not set, the "Adjusting Date/Time" setting screen is displayed.

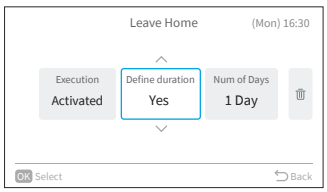


Step2. Press "<" or ">" to select the item to be set: "Execution" ↔ "Define duration" ↔ "Num of Days" ↔ "🗑".

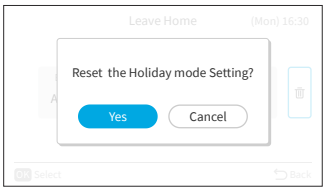


Step3. Press "∧" or "∨" to set each item.
After setting, press "⮌" to confirm the settings, the leave home operation will be started and the screen returns to the "Function Menu" screen.

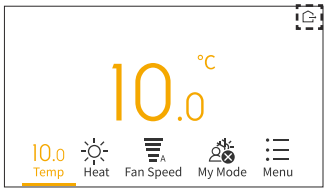
- When "Execution" is selected, press "∧" or "∨" to switch the setting items as follows: "Not used" ↔ "Activated".
- When "Define duration" is selected, press "∧" or "∨" to switch the setting items as follows: "Yes" ↔ "No".
- When "Num of Days" is selected, the days can be adjusted in 1-day increments by pressing "∧" or "∨" to a maximum of 99 days.



- When "🗑" is selected and press "OK", the confirmation screen is displayed.
  If you select "Yes", the holiday mode settings are discarded and the screen returns to Step2.
  If you select "Cancel", the screen still returns to Step2.



- After Leave Home is activated, you will see an icon "⌂" displayed on the home screen.



OPTION LIST

Function Menu Screen Display

NOTES:

- The timer is controlled by this wired remote controller.
- The timer lamp of indoor unit does not turn on.
- Number of day is counted when clock indicates 00:00.
- During leave home operation, fan speed cannot be changed and louver/swing icon is hidden.
- After reaching the set number of operation days for leave home or leave home operation is canceled, the unit will operate in previous mode.
- If "Leave Home" is set, "Simple timer", "Weekly timer", "GoodSleep Timer", "Powerful", "Standard ECO mode"/"ECO mode with Auto-Off", "SleepSense" and "Silent" operations will be cancelled and cannot be set.
- For multi connection:
  - Fan/Cool/Dry and leave home cannot operate at the same time. The first-run unit has a priority and other units in different mode will be in standby mode.
  - Heating operation can be used with leave home.
  - When two or more rooms are set to operate leave home, the temperature set by leave home may not be reached. It also depends on outdoor temperature.

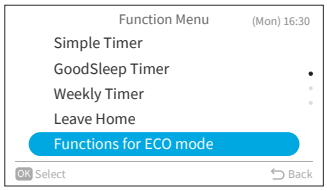
Functions for ECO mode

Functions for ECO mode serves to activate or deactivate energy-saving control features on the indoor unit. This includes three modes: "Standard ECO mode," "ECO mode with Auto-Off," and "PowerSafe mode."
The availability of these features depends on the specific indoor unit model, whether it has motion sensors or not. For more detailed information, please consult your indoor unit's user manual.

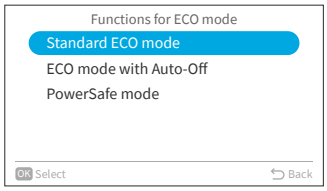
1. Set Standard ECO mode.

This function optimizes energy usage by automatically adjusting the indoor unit set temperature and limiting maximum power consumption.
It is available for indoor units with or without motion sensors.

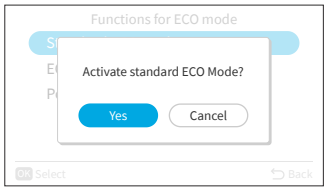
Step1. Select "Functions for ECO mode" on the "Function Menu" screen and press "OK".



Step2. Select "Standard ECO mode" and press "OK".



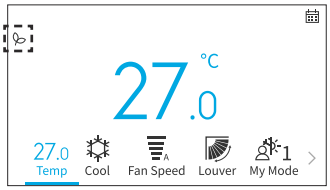
Step3. Select "Yes" and press "OK" to activate Standard ECO mode.



OPTION LIST

Function Menu Screen Display

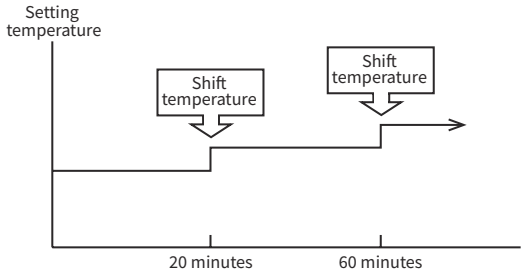
- After enabling this mode, you will see an ECO icon "" displayed on the home screen.
- When this feature is activated, the indoor unit will shift the set temperature twice: first after 20 minutes and then again after 60 minutes to save energy. For models without motion sensors, energy-saving control begins immediately.
- For models equipped with motion sensors, energy-saving control will activate when no people are detected.



NOTES:

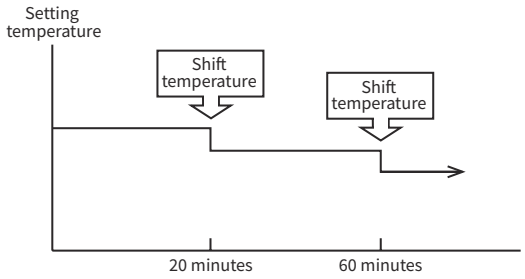
- "Standard ECO mode" operation will not be effective when power consumption is low.
- When "Standard ECO mode" is set, "Fan" mode cannot be set.
- When "Powerful", "SleepSense" or "Fan mode" operation is set or the unit is off, "Standard ECO mode" operation will be cancelled.
- After unit auto restart, "Standard ECO mode" operation is canceled and previous operation mode shall start.
- The energy saving effect of "Standard ECO mode" depends on operation conditions.
- Control diagram is as follow:

Standard ECO mode Control Diagram



Cooling operation

[Diagram representation for illustrative purpose only]



Heating operation

[Diagram representation for illustrative purpose only]

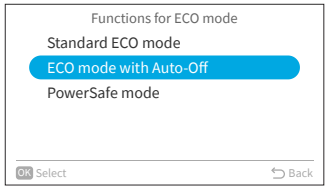
OPTION LIST

Function Menu Screen Display

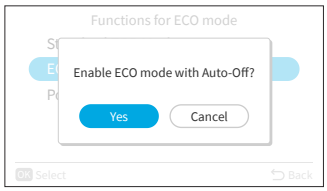
2. Set ECO mode with Auto-Off.

This function is available with indoor unit models equipped with motion sensor. Adjusts the set temperature when "no people are in the room" then automatically turns off after a set time for energy saving.

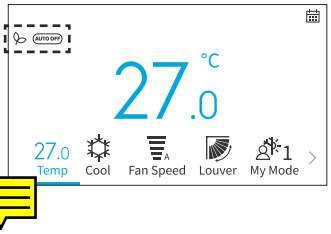
Step1. Press "∧" or "∨" to select "ECO mode with Auto-Off" on the "Functions for ECO mode" screen and press "OK".



Step2. Select "Yes" and press "OK" to enable ECO mode with Auto-Off.



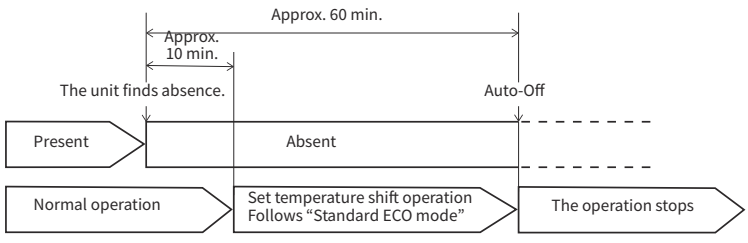
- After enabling this mode, "" and "AUTO OFF" are displayed on the home screen.
  The sensor starts to detect the presence of people in the room.
- If no people are detected for 20 minutes, the set temperature automatically adjusts for energy savings. In the absence of any occupants for 60 minutes, the unit will power off directly.
- The unit reverts to its regular operation when the sensor detects human movement.



NOTE:

- Please be aware that the air conditioner may shut off unexpectedly in the following scenarios. Therefore, recommend not to enable the "ECO mode with Auto-Off" setting in the situations as below:
  - When a person is present in an area where the human sensor cannot detect their presence.
  - When there is a sleeping person, especially an infant or young child.
  - When only a pet is present.

ECO mode with Auto-Off Control Diagram



[Diagram representation for illustrative purpose only]

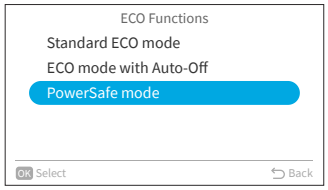
OPTION LIST

Function Menu Screen Display

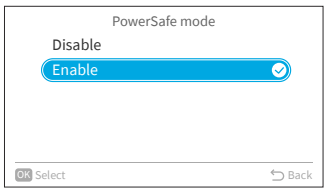
3. Set PowerSafe mode.

This function limit the maximum current during the operation of Air conditioner so it will help to avoid breaker trips if maximum current reaches to breaker limit. It limits the electrical current during operation.

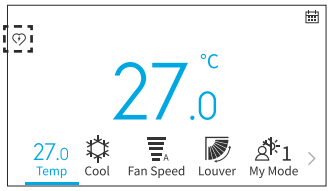
Step1. Press "∧" or "∨" to select "PowerSafe mode" on the "Functions for ECO mode" screen and press "OK".



Step2. Press "∧" or "∨" to select "Enable" and press "OK" to enable PowerSafe mode.



After enabling this mode, you will see a PowerSafe icon "♡" displayed on the home screen.



NOTES:

- PowerSafe mode icon will be visible in all modes if it is set. It is one time setting to use this function.
- This function will limits the maximum current drawn by air conditioner by reducing the speed of the compressor, you may feel less cooling or heating performance compare to normal mode. If you feel uncomfortable, please disable PowerSafe mode.
- At heating operation or cooling operation during PowerSafe setting, maximum capacity will decrease.

OPTION LIST

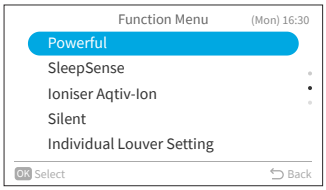
Function Menu Screen Display

Powerful

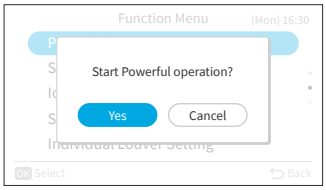
"Powerful" operation is set during operation (Auto, Heat, Cool, Dry, and Fan), the air conditioner performs at the maximum power.
During "Powerful" operation, cooler or warmer air will be blown out from indoor unit for Cool or Heat operation respectively.

1. Set Powerful operation.

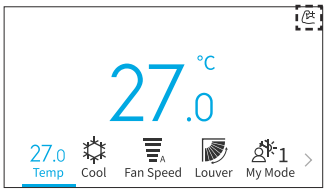
Step1. Select "Powerful" on the "Function Menu" screen and press "OK".



Step2. Select "Yes" and press "OK" to start powerful operation.
Powerful operation ends in 20 minutes. Then the system automatically operates with the previous settings used before powerful operation.



After powerful operation is started, you will see an icon "" displayed on the home screen.



NOTES:

- When "Leave Home", "Standard ECO mode", "ECO mode with Auto-Off, "SleepSense" or "Silent " operation is set or the unit is off, "Powerful" operation will be cancelled.
- In "GoodSleep Timer", "Leave Home" operation or the unit is off, "Powerful" operation cannot be set.
- During "Powerful" operation, capacity of the air conditioner will not increase,
  - if the air conditioner is already running at maximum capacity.
  - just before defrost operation (when the air conditioner is running in heating operation).
- For multi model connections, "Powerful" operation may not function depending on operation conditions.

OPTION LIST

Function Menu Screen Display

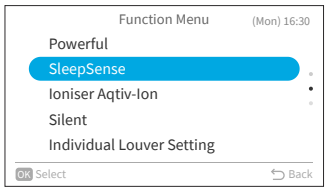
SleepSense

This function is to start/stop SleepSense function.

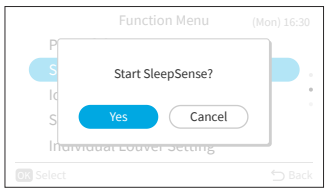
- At first, unit will operate cooling mode for 60 minutes at setting condition.
- With the motion sensor, the room air conditioner can monitor human movement. If no human movement is detected, then the temperature will increase by 1°C(in case of cooling operation) automatically and the fan speed will be changed to silent fan speed. Unit continues running for another 1 hour.
- If the condition of activity in the room is stable then the unit will continue running with the temperature increased by another 1°C(in case of cooling) respectively.
- During the SleepSense operation, if big activity /movement is detected, the temperature and Fan speed will resume back to previous setting.
- During the SleepSense operation, if small activity /movement is detected, the temperature will decreased by 1°C.

1. Set SleepSense.

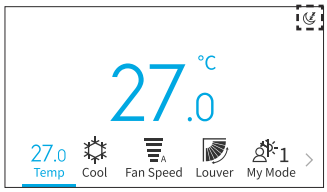
Step1. Select "SleepSense" on the "Function Menu" screen and press "OK".



Step2. Select "Yes" and press "OK" to start SleepSense.



After SleepSense operation is started, you will see an icon "" displayed on the home screen.



NOTES:

- In "GoodSleep Timer", "Leave home", "Auto"/"Fan"/"Dry" operation or the unit is off, "SleepSense" operation cannot be set.
- When "Powerful", "Leave Home", "Standard Eco mode" or "Eco mode with Auto-Off" is set or the unit is off, "SleepSense" operation will be cancelled.

OPTION LIST

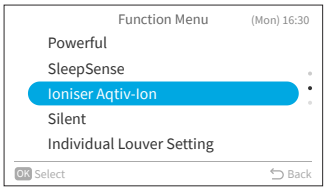
Function Menu Screen Display

Ioniser Aqtiv-Ion

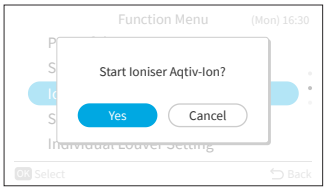
This function is to start / stop Ioniser connected with indoor unit.
Ionisers emit negatively charged particles that bind to airborne pollutants in the room and inactivate them. Ioniser Aqtiv-Ion can be operated in any mode.

1. Set Ioniser Aqtiv-Ion.

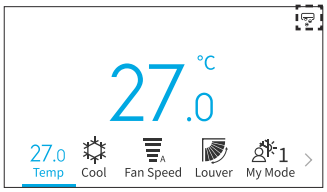
Step1. Select "Ioniser Aqtiv-Ion" on the "Function Menu" screen and press "OK".



Step2. Select "Yes" and press "OK" to start Ioniser Aqtiv-Ion.



After Ioniser Aqtiv-Ion is started, you will see an icon "" displayed on the home screen.



OPTION LIST

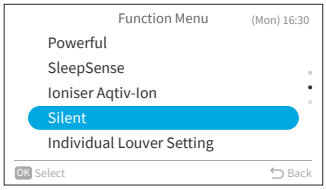
Function Menu Screen Display

Silent

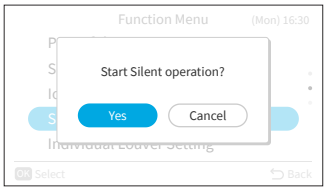
This function is to start/stop Silent mode of indoor unit.

1. Set Silent operation.

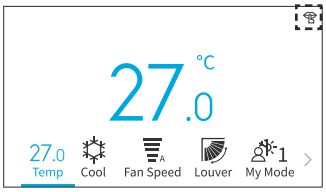
Step1. Select "Silent" on the "Function Menu" screen and press "OK".



Step2. Select "Yes" and press "OK" to start silent operation.



After silent operation is started, you will see an icon "" displayed on the home screen.



NOTES:

- In "GoodSleep Timer", "Leave home" operation or the unit is off, "Silent" operation cannot be set.
- When "Powerful" or "Leave Home" is set or the unit is off, "Silent" operation will be cancelled.
- After unit auto restart, "Silent" operation is cancelled.

OPTION LIST

Function Menu Screen Display

Individual Louver Setting

This function is to individually set the air direction of multiple air outlets on non-ducted ceiling cassette units.

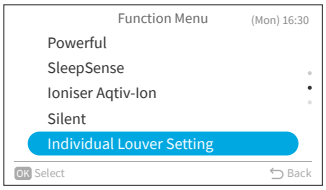
NOTES:

- This function is available when the indoor unit supports individual louver control.
- It cannot be set while the air conditioner is stopped.
- In "Leave Home" operation, it will be cancelled and cannot be set.

Individual Louver Setting

1. Individual louver setting

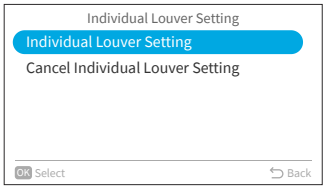
Step1. Select "Individual Louver Setting" on the "Function Menu" and press "OK".



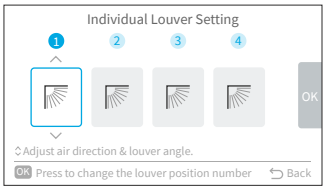
Step2. Select "Individual Louver Setting" and press "OK".

NOTE:

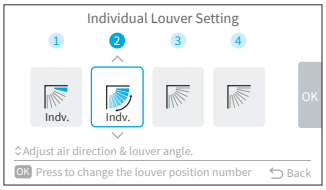
- If there is one indoor unit connected with the wired remote controller, Step3 is displayed.



Step3. Press "<" or ">" and select the louver from 1 to 4.
→The selected louver is opened while the unselected louvers are closed.



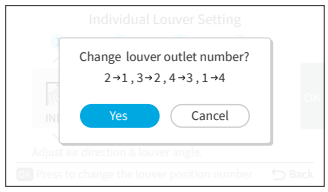
Step4. Press"∧" or "∨" to change the louver angle.
The louver angle is changed as follows.



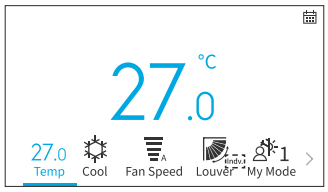
OPTION LIST

Function Menu Screen Display

Step5. Press "OK" and the selected louver will be set as "No.1" and the other louver No. will be changed clockwise automatically. A confirm screen shows up. Select "Yes" and press "OK". Then the screen will return to Step3.



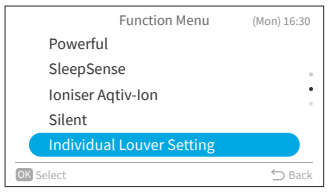
Step6. Individual "Indv." is turned on at the Louver on the home screen.



Cancel Individual Louver Setting

1. Cancel individual louver setting

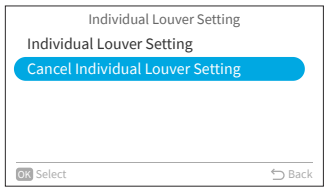
Step1. Select "Individual Louver Setting" on the "Function Menu" and press "OK".



Step2. Select "Cancel Individual Louver Setting" and press "OK".

NOTE:

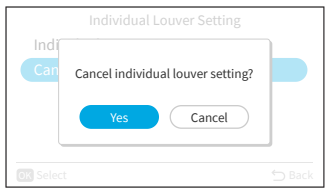
- If there is one indoor unit connected with the wired remote controller, Step3 is displayed.



Step3. Press "<" or ">" to select "Yes" and press "OK". Cancel the individual louver setting and return to Step2.

NOTE:

- All the individual louver settings are cancelled.



OPTION LIST

Function Menu Screen Display

Clean Operation

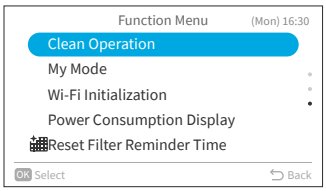
The dust and dirt adhering to indoor heat exchanger which is the cause of the smell. This function is to wash away dust and dirt by freezing and thawing of the heat exchanger.

NOTES:

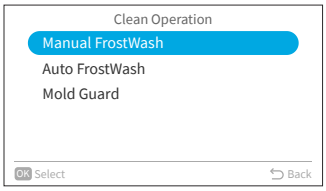
- Based on the temperature condition and etc., clean operation might not start. In case of that, the running display will not appear.
- When clean operation finishes, the unit will stop automatically.
- If Weekly Timer or Simple Timer is set, clean operation might stop at the middle point because of the timer setting.
- For multi connection :
  - When starts "Mold guard" operation, operation is limited to "Fan" operation.
  - When one room operates "Mold guard" operation first, other rooms can operate "Cool", "Dry" or "Fan" mode. However, when other rooms need to operate "Heat" operation, air conditioner in other rooms will be in STANDBY mode. After "Mold guard" operation finishes, "Heat" operation will start.
- Some indoor units may need some extra time till showing the running display.
- Manual FrostWash can not be set during the unit operation is on.

1. Set Manual FrostWash.

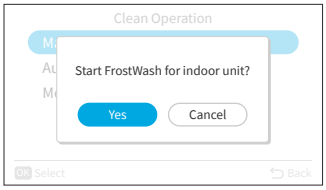
Step1. Select "Clean Operation" on the "Function Menu" screen and press "OK".



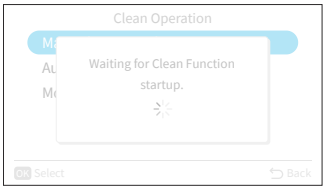
Step2. Select "Manual FrostWash" and press "OK".



Step3. Select "Yes" and press "OK" to start FrostWash for indoor unit.



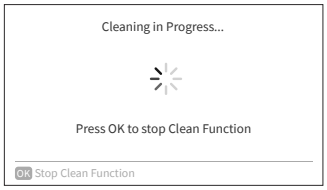
Clean operation is in startup.



OPTION LIST

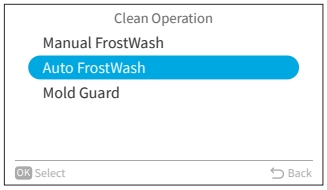
Function Menu Screen Display

Once the startup succeeds, the indoor unit is in cleaning progress.
Press "OK" in the progress will stop this function.
Once the progress is complete or stopped, return to home screen.

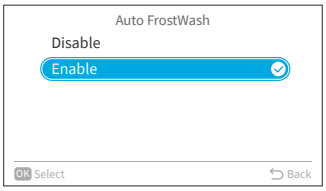


2. Set Auto FrostWash.

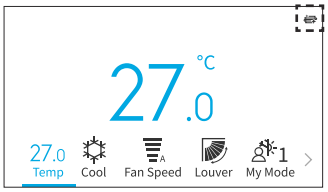
Step1. Press "∧" or "∨" to select "Auto FrostWash" on "Clean Operation" screen and press "OK".



Step2. Press "∨" to select "Enable" and press "OK" to enable the auto FrostWash.



After auto FrostWash is enabled, you will see an icon "" displayed on the home screen.
Auto FrostWash starts if the air conditioner is stopped after running for more than 42 hours*. At this time, Indoor FrostWash monitors the temperature and humidity conditions, and also monitors whether the conditions are suitable for starting, and starts if the conditions are met.
*: The default time is 42 hours, it can be changed in Service Settings, please refer to **" FrostWash Time Setting"**.

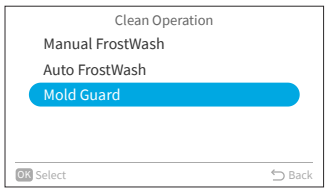


OPTION LIST

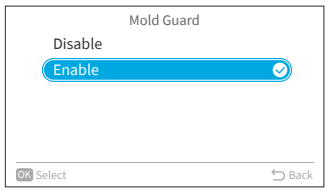
Function Menu Screen Display

3. Set Mold guard.

Step1. Press "∧" or "∨" to select "Mold guard" on "Clean Operation" screen and press "OK".

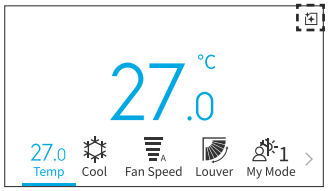


Step2. Press "∨" to select "Enable" and press "OK" to enable the mold guard.



Step3. After mold guard is enabled, you will see an icon "" displayed on the home screen.

If the air conditioner is operated in cooling or dry mode (or auto mode*) for more than 10 minutes and then put into off mode, the mold guard will start.
*: It depends on the indoor unit model.



OPTION LIST

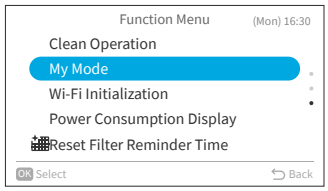
Function Menu Screen Display

My Mode Setting

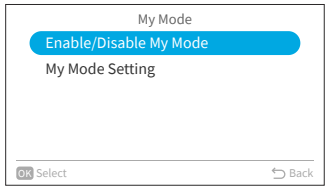
My Mode is used to enable or disable the feature and pre-set My Mode settings through the Function Menu. Users can select or switch between presets for My Mode 1, 2, and 3 on home screen.

1. Enable/Disable My Mode

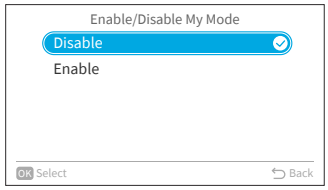
Step1. Select "My Mode" on the "Function Menu" screen and press "OK".



Step2. Select "Enable/Disable My Mode" and press "OK".

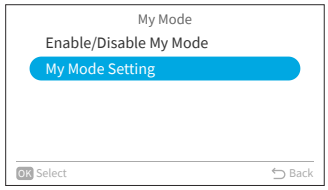


Step3. Press "∧" or "∨" to select "Disable"/"Enable" and press "OK" to disable/enable My Mode.
Disable: My Mode icon disappears from the home screen.
Enable: My Mode icon appear on the home screen and the mode can be adjusted.

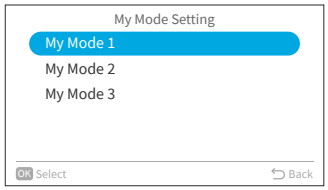


2. Set My Mode Setting

Step1. Press "∨" to select "My Mode Setting" on "My Mode" screen and press "OK".



Step2. Press "∧" or "∨" to select desired mode and press "OK".

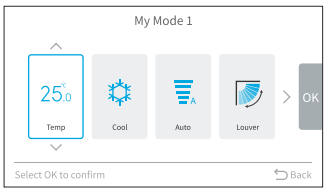


OPTION LIST

Function Menu Screen Display

Step3. Press "<" or ">" to select the setting item, then press "^" or "v" to change the setting of each item.

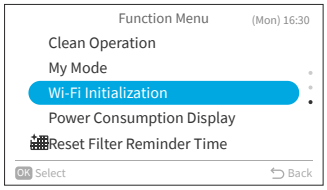
After all changes are completed, press ">" to select "OK" and press "OK" and return to Step2.



Wi-Fi Initialization

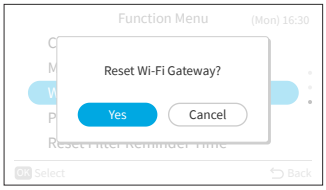
This function is used to reset Wi-Fi module settings when used with the "airCloud Go" application. Please note that executing this function will clear the configuration, and the Wi-Fi module will be restored to its factory settings.

Step1. Select "Wi-Fi Initialization" on the "Function Menu" screen and press "OK".



Step2. Select "Yes" and press "OK" to reset Wi-Fi gateway.

When the Wi-Fi settings are reset, the blue LED on the indoor unit front panel will flash 4 times (1 flash per second) for 10/20 seconds. Then the blue LED will flash 3 times (1 time per second), meaning the embedded gateway is reset and ready to be paired to a new Wi-Fi network.
This function is only available for indoor unit with embedded Wi-Fi adapter.



OPTION LIST

Power Consumption Display

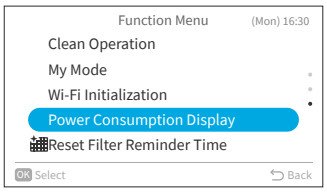
This function is to show power consumption history with trend graph and data table.

NOTE:

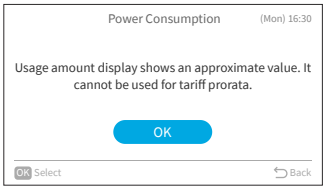
- Power consumption data is saved and draw trend graph always based on wired remote controller time, instead of indoor unit time.

1. Display power consumption

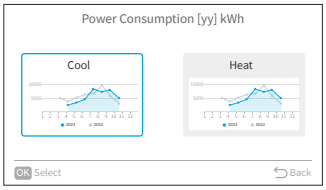
Step1. Select "Power Consumption Display" on the "Function Menu" screen and press "OK". If the current time is not set, the "Adjusting Date/ Time" setting screen is displayed.



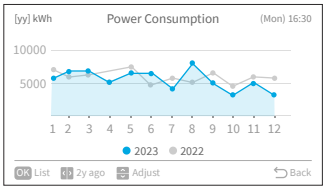
Step2. A reminder "Usage amount display shows an approximate value. It cannot be used for tariff prorata." pop upped. Then press "OK".



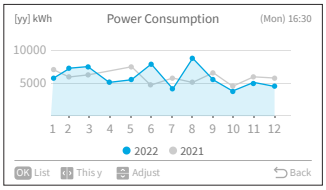
Step3. Press "<" or ">" to select "Cool" or "Heat" and press "OK".



Step4. The power consumption trend graph is displayed.



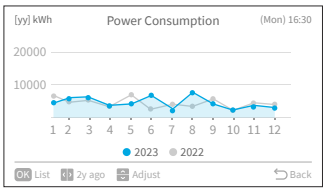
Step5. Press "<" or ">" to select the trend graph of different years, "this year" or "2 year ago".



OPTION LIST

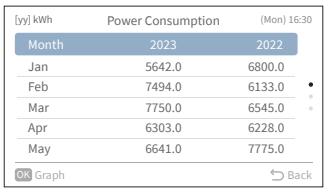
Function Menu Screen Display

Step6. Press ""△" or "▽" to adjust the scale of Y axis.
The range of Y axis is:



Max of Y 1000000 500000 200000 ... 10000 ... 1000 ... 100 ... 20 10

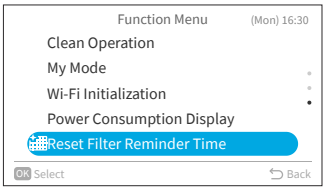
Step7. Press "OK" to show a power consumption table of each month.
Press "OK" to return to Step6. Or Press "⮌" to return to Step3.



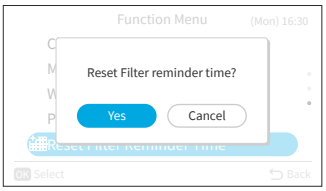
Reset Filter Reminder Time

This function is used to turn off the filter reminder indication and to reset the time of use for the filter.

Step1. Select "Reset Filter Reminder Time" on the "Function Menu" screen and press "OK".



Step2. Select "Yes" and press "OK" to reset filter reminder time.
The default time is 200 hours, which can be changed in Service Settings, refer to **" Time for Filter Sign Display"**.

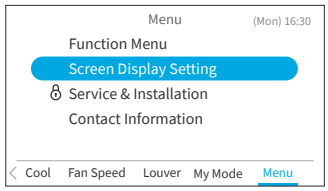


OPTION LIST

10.4 Screen Display Setting

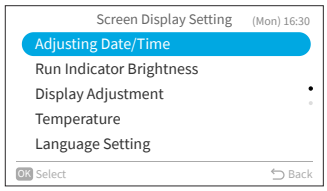
1. Screen display setting

Step1. Select "Screen Display Setting" on the "Menu" screen and press "OK".



Step2. Press "∧" or "∨" to select setting item and press "OK".
Press"⮌" to return to "Menu" screen.

- If there is no operation on the display setting screen for about 10 minutes, the screen automatically returns to the home screen.
- Various settings are saved even when the power supply is off.



Adjusting Date/Time

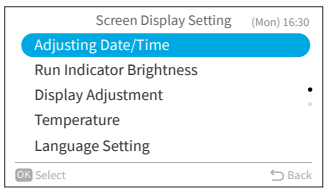
Function	Action
Adjusting Date/Time	Set Year/Month/Day/Hour/Minute.
Time Format	Change the time format to 12 hour/24 hour.
Daylight Saving Times	Adjusts time forward or backward an hour when daylight savings time starts or ends.

Adjusting Date/Time

- Periodic time setting is recommended. (Clock accuracy: difference within ±70 seconds by a month)
- In the event of a power supply disruption, the built-in capacitor will retain the settings including the time settings for up to 72 hours. Reset the date and time if the wired remote controller remains without power for longer than 72 hours or the main power supply is OFF for a long period of time.

1. Adjusting Date/Time

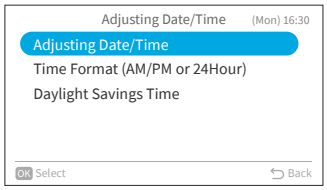
Step1. Select "Adjusting Date/Time" on the "Screen Display Setting" screen and press "OK".



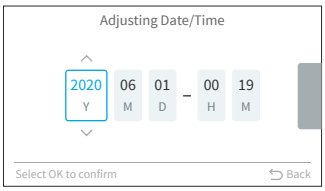
OPTION LIST

Screen Display Setting

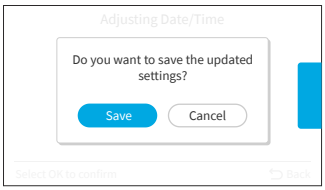
Step2. Press "∧" or "∨" to select "Adjusting Date/Time" and press "OK".



Step3. Press "<" or ">" to select "yyyy/mm/dd/hh/mm".
Press "∧" or "∨" to change the setting.



Step4. After making all settings,
If select "OK" and press "OK", the screen returns to Step2.
If press"⮌", the confirmation screen is displayed.
Select "Save" and press "OK" to confirm the setting and the screen returns to Step2.
Select "Not Save", it returns to Step2 without any setting changes.
If press "⮌" again, it returns to Step3.



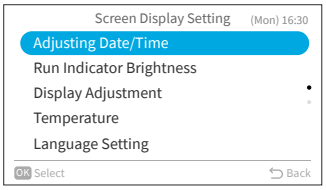
OPTION LIST

Screen Display Setting

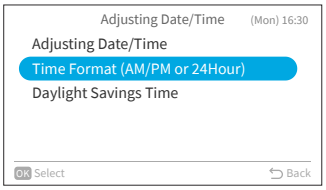
Time Format

1. Set time format

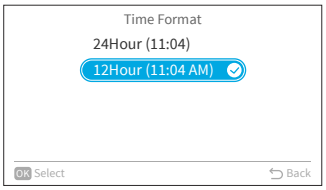
Step1. Select "Adjusting Date/Time" on the "Screen Display Setting" screen and press "OK".



Step2. Press "∧" or "∨" to select "Time Format" and press "OK".



Step3. Press "∧" or "∨" to select 24 hour or 12 hour and press "OK".
Press "⮌" to return to Step2.

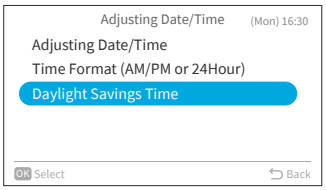


Daylight Savings Time

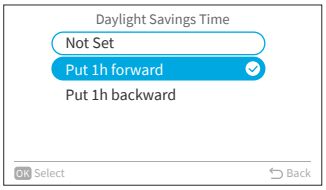
This function adjusts time forward or backward an hour when daylight savings time starts or ends.

1. Set daylight savings time

Step1. Select "Daylight Savings Time" on the "Adjusting Date/Time" screen and press "OK".



Step2. Press "∧" or "∨" to select the setting and press "OK".



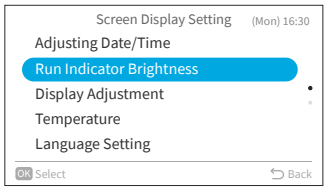
OPTION LIST

Run Indicator Brightness

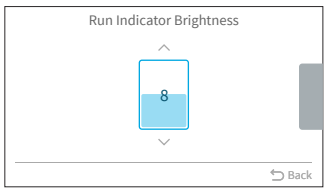
This function is to set the LED brightness of operation on/off indicator, the higher lever means greater brightness.

1. Set run indicator brightness

Step1. Select "Run Indicator Brightness" on the "Screen Display Setting" screen and press "OK".



Step2. Press "∧" or "∨" to change the brightness value. Select "OK" and press "OK", the screen returns to the "Screen Display Setting" screen.



NOTE:

- When the run indicator brightness is set to be 0, the backlight turns off after no operation for the set time. In this case, the current status is not indicated.

OPTION LIST

Display Adjustment

Function	Action
Backlight Brightness	Adjust the brightness of the backlight.
Backlight Dim Time	Change the time when the backlight turns dim after inactivity.
Backlight Off Time	Change the time when the backlight turns off after inactivity.

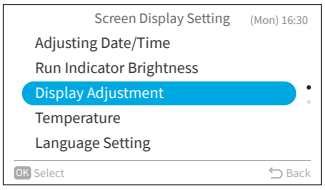
NOTE:

- Backlight Brightness: brightness level range depends on indoor unit model.

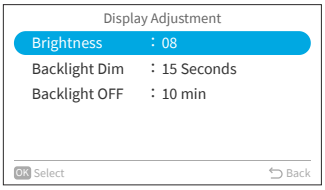
Backlight Brightness

1. Set backlight brightness

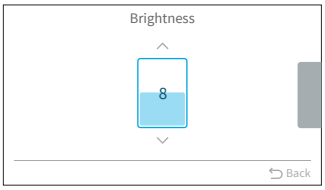
Step1. Select "Display Adjustment" on the "Screen Display Setting" screen and press "OK".



Step2. Select "Brightness" and press "OK".



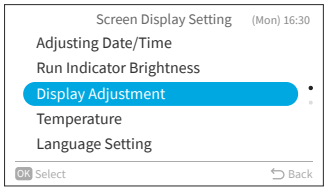
Step3. Press "∧" or "∨" to change the brightness value.
Select "OK" and press "OK", the screen returns to Step2.



Backlight Dim Time

This function is used to set the time for the backlight to be dimmed to the lowest brightness. For example, if the backlight dim time is set to 15 seconds, the backlight will remain at selected brightness for 15 seconds and then dim.

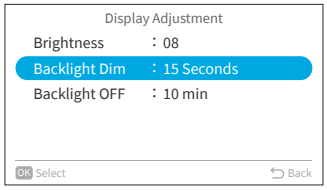
Step1. Select "Display Adjustment" on the "Screen Display Setting" screen and press "OK".



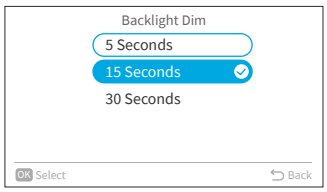
OPTION LIST

Screen Display Setting

Step2. Select "Backlight Dim" and press "OK".



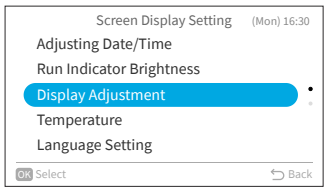
Step3. Press "∧" or "∨" to select the dim time intervals and press "OK". The item changes as follows:
"5 seconds" ↔ "15 seconds" ↔ "30 seconds".



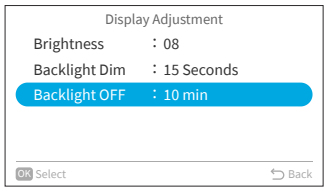
Backlight Off Time

1. Set backlight off time

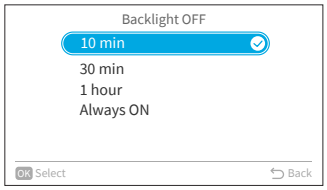
Step1. Select "Display Adjustment" on the "Screen Display Setting" screen and press "OK".



Step2. Select "Backlight OFF" and press "OK".



Step3. Press "∧" or "∨" to select the off time intervals and press "OK".
Press "⮌" to return to Step2.



OPTION LIST

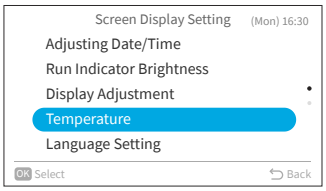
Temperature

Function	Action
Unit and Width	Change temperature unit and width.
Display of Thermistor Temperature	Show/hide the thermistor temperature display on the home screen.

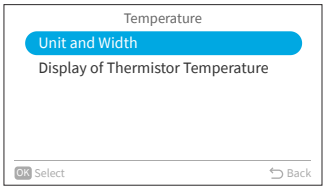
Temperature Unit and Width

1. Set temperature unit and width

Step1. Select "Temperature" on the "Screen Display Setting" screen and press "OK".



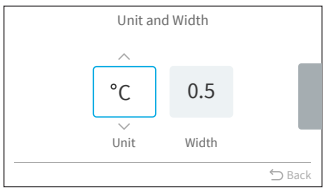
Step2. Press "∧" or "∨" to select "Unit and Width" and press "OK".



Step3. Press "<" or ">" to select unit or width.
Press "∧" or "∨" to change the setting.

- When the unit is selected, it changes as between: °F ↔ °C.
- When the width is selected, it changes as between: 0.5 ↔ 1.
  (The width can be set only when the unit is °C.)

After making all settings, select "OK" and press "OK", the screen returns to Step2.



NOTE:

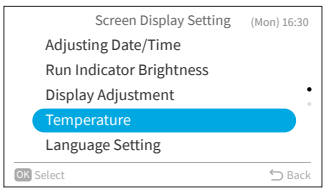
- Once the unit is changed, the preset temperature upper/lower limit will be invalid, please set it again(refer to **"Temperature Range Restriction"**).

OPTION LIST

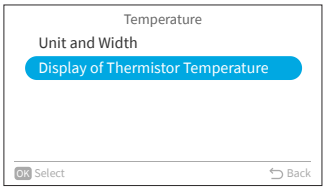
Display of Thermistor Temperature

1. Set thermistor temperature display

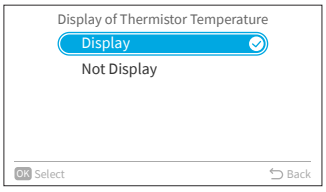
Step1. Select "Temperature" on the "Screen Display Setting" screen and press "OK".

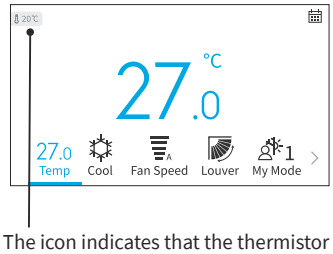


Step2. Press "∧" or "∨" to select "Display of Thermistor Temperature" and press "OK".



Step3. Press "∧" or "∨" to select the setting and press "OK".
Press "⮌" to return to Step2.





The icon indicates that the thermistor temperature is set to be displayed.

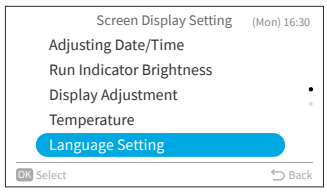
OPTION LIST

Language Setting

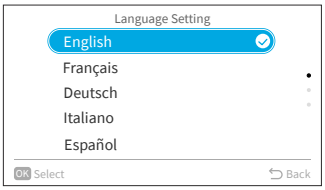
This function is to change the displayed language.
Selectable language: English, French, Dutch, Italian, Spanish, Portuguese, German, Danish, Greek, Croatian, Czech, Polish, Romanian.

1. Set display language

Step1. Select "Language Setting" on the "Screen Display Setting" screen and press "OK".



Step2. Press "∧" or "∨" to select the language and press "OK".
Press "⮌" to return to "Screen Display Setting" screen.

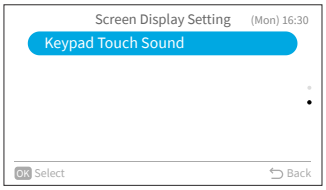


Keypad Touch Sound

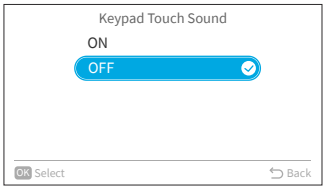
This function is to turn ON/OFF the touch sound of keypad on wired remote controller.

1. Set keypad touch sound

Step1. Select "Keypad Touch Sound" on the "Screen Display Setting" screen and press "OK".



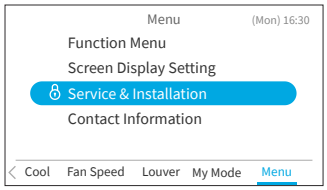
Step2. Press "∧" or "∨" to select the sound volume and press "OK".
Press "⮌" to return to "Screen Display Setting" screen.



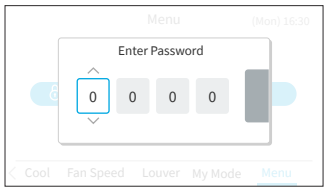
10.5 Service & Installation Screen

Service & Installation menu is protected by a password.

Step1. Select "Service & Installation" on "Menu" screen and press "OK".



Step2. Press "∧", "∨", "<", or ">" to input the password.
Press ">" to select "OK" and press "OK" to enter Service & Installation menu screen.

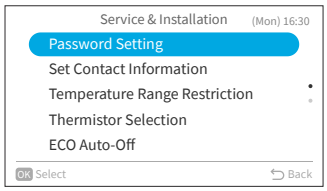


Password Setting

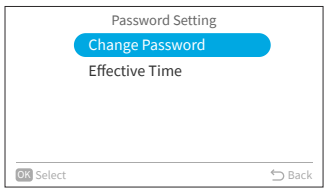
The default user password can be changed. If you forget the changed user password, a supervisor password can be used to reset the user password again. The supervisor password is "5567".
The password input effective time can be set also.
If the password input effective time has been set, then the password is required to be entered only once during the password effective time.

1. Change Password

Step1. Select "Password Setting" on "Service & Installation" screen and press "OK".



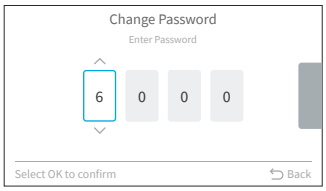
Step2. Select "Change Password" and press "OK".



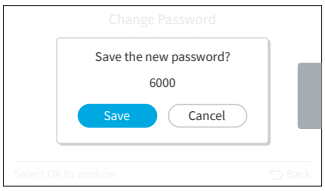
OPTION LIST

Service & Installation Screen

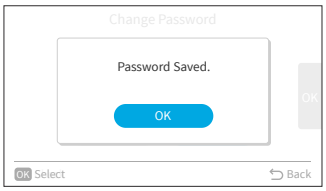
Step3. Press "^", "v", "<", or ">" to set the password, select "OK" and press "OK".



Step4. Press "<"or ">" to select "Save" and press "OK" to save password.

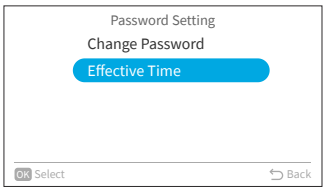


Press "OK", the new password is saved.

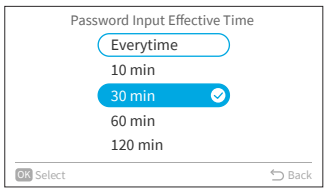


2. Set Password Input Effective Time

Step1. Select "Effective Time" on "Password Setting" screen and press "OK".



Step2. Press "^" or "v" to select the setting item and press "OK" to confirm the setting. The item changes as follows:
"Everytime" ↔ "10 min" ↔ "30 min" ↔ "60 min" ↔ "120 min".
Press "⮌" and it returns to Step3.



NOTES:

- In order to enhance the security protection, please be sure to change the default password.
- If you enter the wrong password more than 5 times, you will not be able to enter the password within 1 minute.
- The default password is "0000", and the supervisor code is "5567".
- If you forget the password, use the supervisor code to change the password.
- The supervisor code can't be changed.

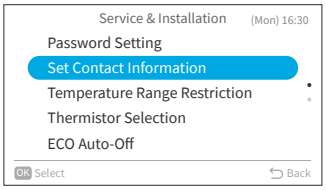
OPTION LIST

Set Contact Information

Register a service contact (service address and service telephone number are recommended).

1. Register Contact Information

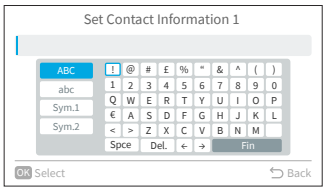
Step1. Select "Set Contact Information" on the Service & Installation screen and press "OK".



Step2. " Set Contact Information1" screen is displayed. Press "〈" to move cursor to font type. Press "∧" or "∨" to select the font type.
*Each time you want to change the font type, press "〈" to move the cursor back to font type.

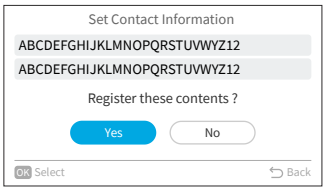
Step3. Press "〉" to move cursor to the keypad. Press "∧", "∨", "〈", or "〉" to select the font and press "OK" to register it.(Up to 60 characters can be used for each contact information.)

Step4. After all the characters have been set, select "Fin" and press "OK".



Step5. "Set Contact Information2" screen is displayed, repeat Step2, Step3 and Step4.

Step6. Select "Yes" and press "OK" to confirm the setting and Step1 is displayed.
If "No" is selected , the screen returns to Step2.



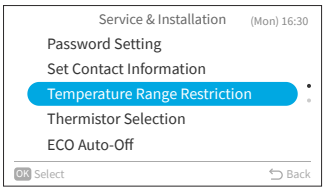
OPTION LIST

Temperature Range Restriction

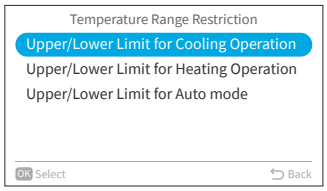
The temperature range can be set by the wired remote controller.

1. Set Temperature Range

Step1. Select "Temperature Range Restriction" on the Service & Installation screen and press "OK".

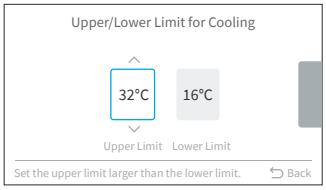


Step2. Select "Upper/Lower Limit for Cooling Operation"/"Upper/Lower Limit for Heating Operation"/ "Upper/Lower Limit for Auto mode" and press "OK".



Step3. Press "<", ">" to select the setting limit, then press "^", "v" to change the temperature value.

Step4. After value setting, select "OK" and press "OK". Press "⮌" to return to Step2.



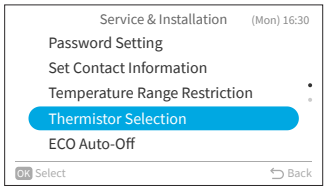
NOTE:

- Please make sure that the upper limit value is equal to or greater than the lower limit value.

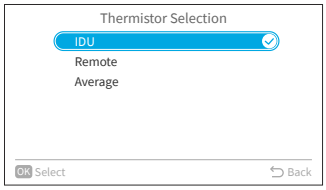
Thermistor Selection

This function is to select wired remote controller thermistor or indoor unit thermistor as the room temperature.

Step1. Select "Thermistor Selection" on the Service & Installation screen and press "OK".



Step2. Select the desired item and press "OK".



NOTE:

- If one of indoor unit or wired remote controller thermistor is broken, the other normal thermistor is selected automatically.

ECO Auto-Off

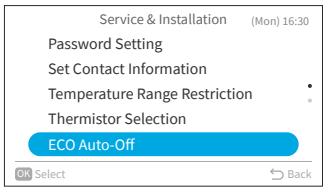
The default Auto-off time is set at 20min, it can be changed from 20min to 120min as described below. When the timer defined by "Auto-Off Timing" elapsed, wired remote controller will turn off indoor unit.

NOTE:

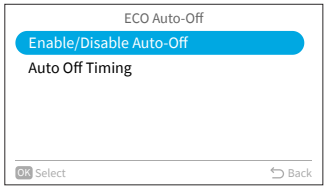
- "ECO Auto-Off" maybe not available depending on the indoor unit.

1. Enable/Disable Auto-Off

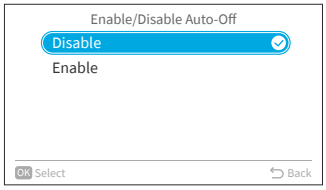
Step1. Select "ECO Auto-Off" on the Service & Installation screen and press "OK".



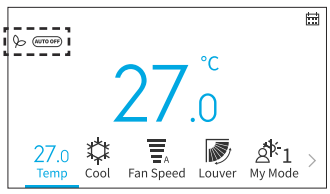
Step2. Select "Enable/Disable Auto-Off" and press "OK".



Step3. Press "∧" or "∨" to select "Disable"/"Enable" and press "OK" to enable/disable Auto-Off.



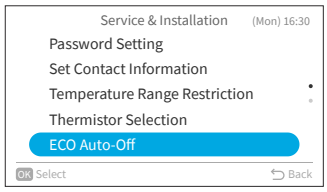
When "ECO Auto-Off" is enabled and "Standard ECO mode" is started(refer to Page 27), "" and "AUTO OFF" are displayed on home screen.



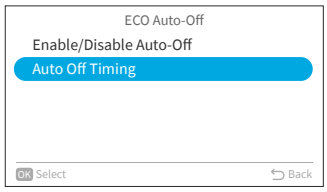
OPTION LIST

2. Set Auto-Off Timing

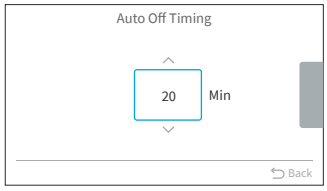
Step1. Select "ECO Auto-Off" on the Service & Installation screen and press "OK".



Step2. Press "﹀" to select "Auto-Off Timing" and press "OK".



Step3. Press "∧" or "﹀" to change the time from 20min to 120min, then press "›" to select "OK" and press "OK".



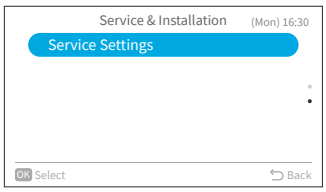
OPTION LIST

10.6 Service Settings

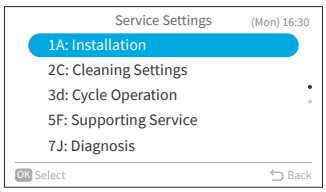
- The service setting items displayed in list depend on indoor unit model.
- When no operation for 2 hours on Service settings or sub settings screen, it returns to home screen.
- When the air conditioner is turned on, service setting is disabled.
- When entering each setting screen, "Please wait for a moment" screen would appear for several seconds.
- For more information of service settings, please refer to service manual of the wired remote controller.

Installation

Step1. Select "Service Settings" on "Service & Installation" screen and press "OK".



Step2. Select "1A: Installation" and press "OK".

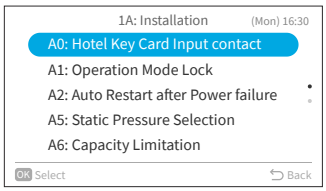


NOTE:

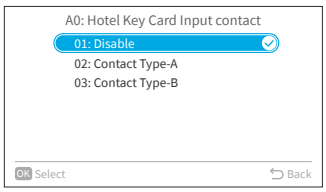
- Once the setting in 1A is changed, it may take some time to reconnect with the indoor unit.

Hotel Key Card Input contact

Step1. Select "A0: Hotel Key Card Input contact" on "1A: Installation" screen and press "OK".



Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1 after reconnection.

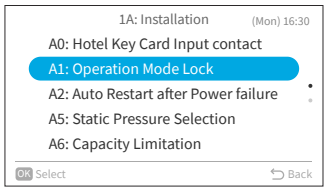


OPTION LIST

Service Settings

Operation Mode Lock

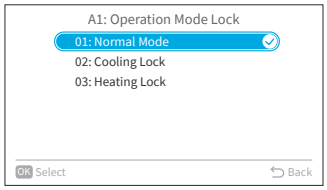
Step1. Select "A1: Operation Mode Lock" on "1A: Installation" screen and press "OK".



Step2. Press "∧" or "∨" to select the desired item and press "OK".
The lock result of each item is as follow.

●: Selectable + Default value ○: Selectable -: Unselectable

Setting item	Auto	Heat	Dry	Cool	Fan
01: Normal Mode	●	○	○	○	○
02: Cooling Lock	-	-	○	●	○
03: Heating Lock	-	●	-	-	○



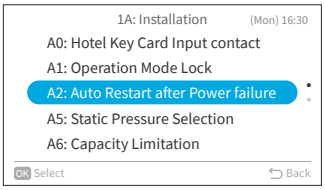
Press "⮌" to return to Step1 after reconnection.

NOTE:

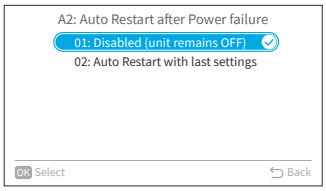
- The operation lock setting will remain unchanged after the unit is turned off.

Auto Restart after Power failure

Step1. Select "A2: Auto Restart after Power failure" on "1A: Installation" screen and press "OK".



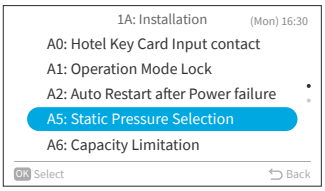
Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1 after reconnection.



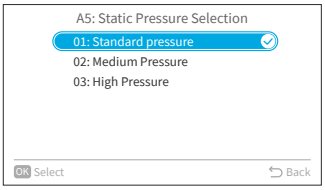
OPTION LIST

Static Pressure Selection

Step1. Select "A5: Static Pressure Selection" on "1A: Installation" screen and press "OK".

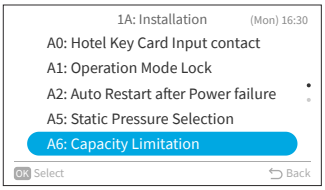


Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1 after reconnection.

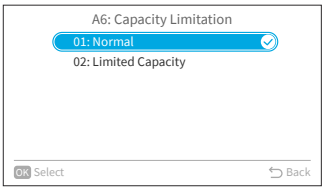


Capacity Limitation

Step1. Select "A6: Capacity Limitation" on "1A: Installation" screen and press "OK".



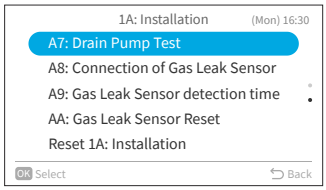
Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1 after reconnection.



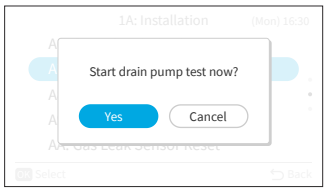
OPTION LIST

Drain Pump Test

Step1. Select "A7: Drain Pump Test" on "1A: Installation" screen and press "OK".

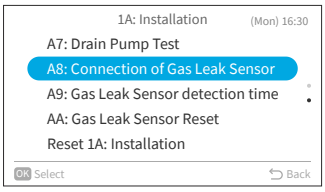


Step2. Select "Yes" and press "OK" to start drain pump test.
Press "⮌" to return to Step1 after reconnection.

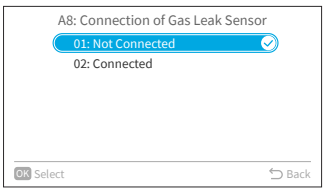


Connection of Gas Leak Sensor

Step1. Select "A8: Connection of Gas Leak Sensor" on "1A: Installation" screen and press "OK".



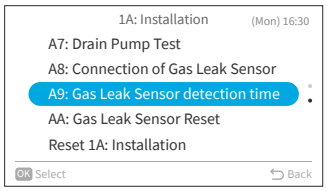
Step2. Press "⩓" or "⩔" to select the desired item and press "OK".
Press "⮌" to return to Step1 after reconnection.



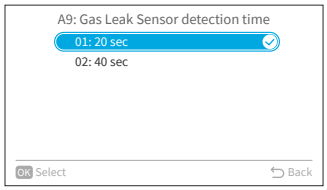
OPTION LIST

Gas Leak Sensor detection time

Step1. Select "A9: Gas Leak Sensor detection time" on "1A: Installation" screen and press "OK".

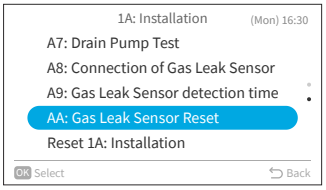


Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1 after reconnection.

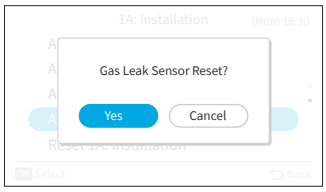


Gas Leak Sensor Reset

Step1. Select "AA: Gas Leak Sensor Reset" on "1A: Installation" screen and press "OK".



Step2. Select "Yes" and press "OK" to reset gas leak sensor.
Press "⮌" to return to Step1 after reconnection.



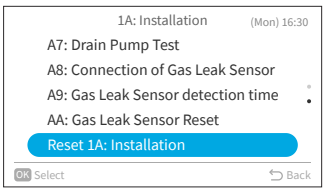
NOTE:

- This setting is only available when the indoor unit reports Alarm Code 041(Gas Leak Error), in other case, it is unavailable to set and displays with an icon "⃠".

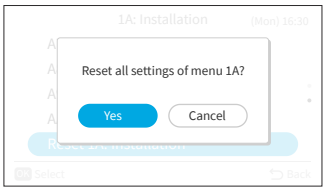
OPTION LIST

Reset 1A: Installation

Step1. Select "Reset 1A: Installation" on "1A: Installation" screen and press "OK".

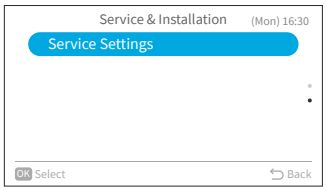


Step2. Select "Yes" and press "OK" to reset all settings of menu 1A. After settings are initialized, it turns to home screen.

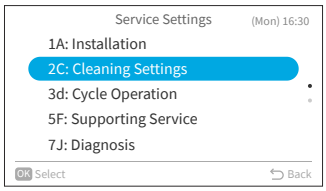


Cleaning Settings

Step1. Select "Service Settings" on "Service & Installation" screen and press "OK".



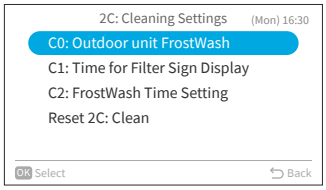
Step2. Select "2C: Cleaning Settings" and press "OK".



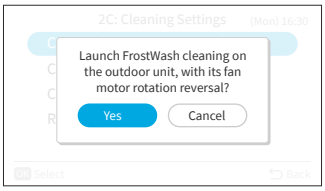
OPTION LIST

Outdoor unit FrostWash

Step1. Select "C0: Outdoor unit FrostWash" on "2C: Cleaning Settings" screen and press "OK".

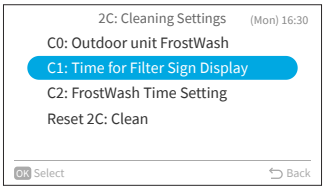


Step2. Select "Yes" and press "OK" to launch Frostwash cleaning of outdoor unit. Then it returns to Step1.

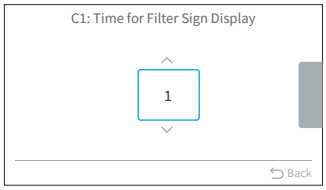


Time for Filter Sign Display

Step1. Select "C1: Time for Filter Sign Display" on "2C: Cleaning Settings" screen and press "OK".



Step2. Press "∧" or "∨" to change the cumulative amount of time the air conditioner takes to display the filter cleaning recommendation sign, then press ">" to select "OK" and press "OK". Then it returns to Step1.
The cumulative time of adjustment value is as follow:



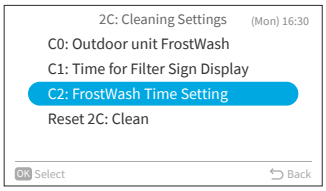
Adjustment value	Time to display filter sign
-1	100Hr
0	200Hr (default)
1	300Hr
2	400Hr

OPTION LIST

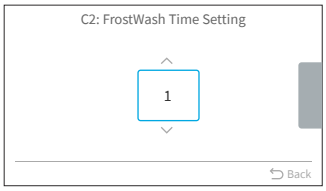
Service Settings

FrostWash Time Setting

Step1. Select "C2: FrostWash Time Setting" on "2C: Cleaning Settings" screen and press "OK".



Step2. Press "∧" or "∨" to change the indoor unit auto FrostWash startup time, then press ">" to select "OK" and press "OK". Then it returns to Step1. Adjustment value of cumulative air conditioner time until execution of indoor unit auto FrostWash is as follow.

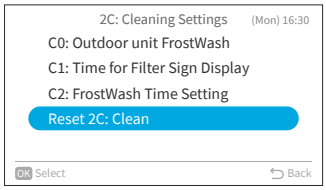


Adjustment value	Time to do auto FrostWash
1	2 Hr
2	6 Hr
3	10 Hr
4	20 Hr
5	42 Hr(Default)
6	60 Hr
7	84 Hr
8	90 Hr
9	100 Hr
10	120 Hr
11	140 Hr
12	160 Hr
13	180 Hr
14	200 Hr
15	250 Hr

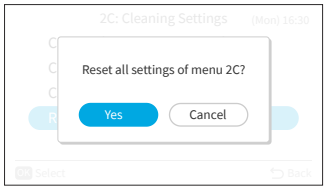
OPTION LIST

Reset 2C: Clean

Step1. Select "Reset 2C: Clean" on "2C: Cleaning Settings" screen and press "OK".

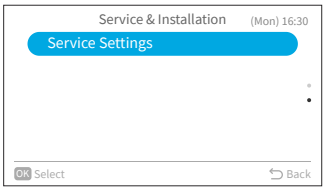


Step2. Select "Yes" and press "OK" to reset all settings of menu 2C. After settings are initialized, it turns to home screen.

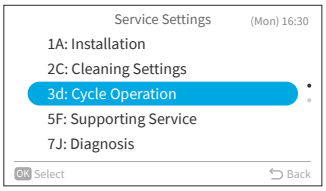


Cycle Operation

Step1. Select "Service Settings" on "Service & Installation" screen and press "OK".



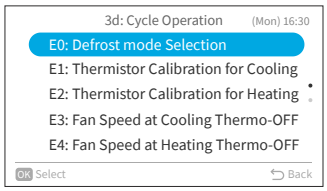
Step2. Select "3d: Cycle Operation" and press "OK".



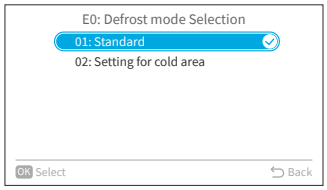
OPTION LIST

Defrost mode Selection

Step1. Select "E0: Defrost mode Selection" on "3d: Cycle Operation" screen and press "OK".

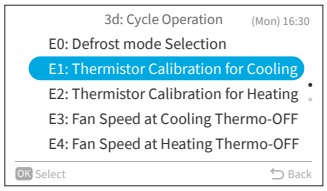


Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1.

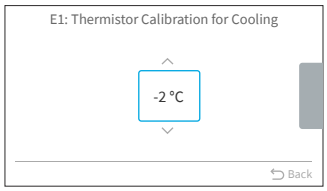


Thermistor Calibration for Cooling

Step1. Select "E1: Thermistor Calibration for Cooling" on "3d: Cycle Operation" screen and press "OK".



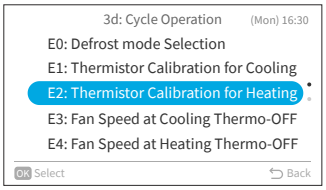
Step2. Press "∧" or "∨" to change the thermistor calibration for cooling, then press ">" to select "OK" and press "OK". Then it returns to Step1.



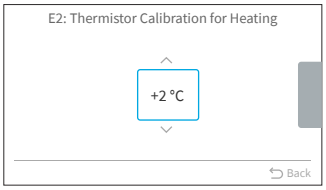
OPTION LIST

Thermistor Calibration for Heating

Step1. Select "E2: Thermistor Calibration for Heating" on "3d: Cycle Operation" screen and press "OK".

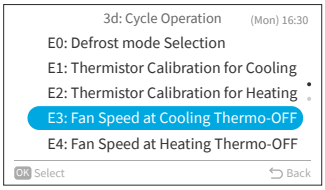


Step2. Press "∧" or "∨" to change the thermistor calibration for heating, then press ">" to select "OK" and press "OK". Then it returns to Step1.

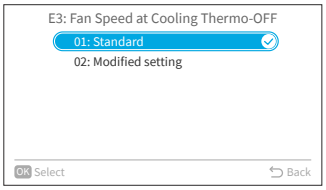


Fan Speed at Cooling Thermo-OFF

Step1. Select "E3: Fan Speed at Cooling Thermo-OFF" on "3d: Cycle Operation" screen and press "OK".



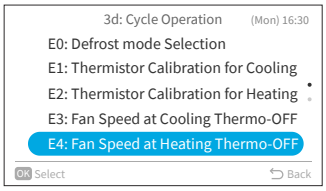
Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1.



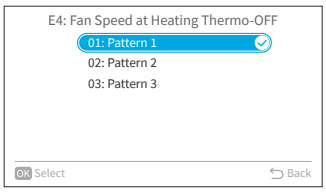
OPTION LIST

Fan Speed at Heating Thermo-OFF

Step1. Select "E4: Fan Speed at Heating Thermo-OFF" on "3d: Cycle Operation" screen and press "OK".



Step2. Press "∧" or "∨" to select the desired item and press "OK".
Press "⮌" to return to Step1.

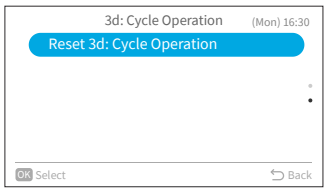


NOTE:

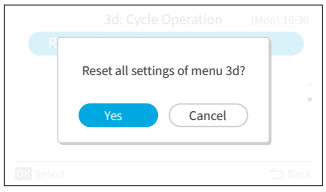
- This setting is available only for multi-model, and it needs to take a long time to get information from indoor unit. If the setting is not displayed on "3d: Cycle Operation" screen, please press "⮌" to return to "Service Setting" screen, wait for a while and go to "3d: Cycle Operation" screen again.

Reset 3d: Cycle Operation

Step1. Select "Reset 3d: Cycle Operation" on "3d: Cycle Operation" screen and press "OK".



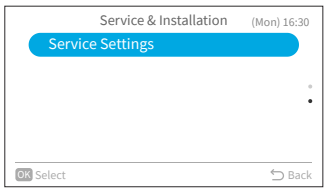
Step2. Select "Yes" and press "OK" to reset all settings of menu 3d. After settings are initialized, it turns to home screen.



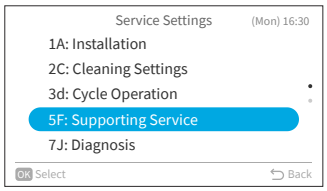
OPTION LIST

Supporting Service

Step1. Select "Service Settings" on "Service & Installation" screen and press "OK".



Step2. Select "5F: Supporting Service" and press "OK".

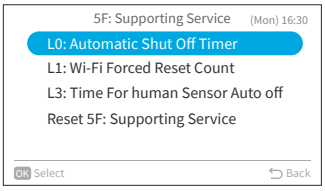


Automatic Shut Off Timer

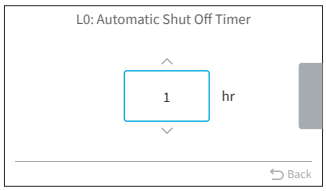
"Automatic Shut Off Timer" is the same feature that was previously referred to as the "Run On Timer" in some of wired remote controllers and indoor unit manuals.

This function is used to automatically shut off indoor unit after a predetermined period of time has elapsed since indoor unit started operation, to prevent forgetting to stop indoor unit operation and reduce power consumption.

Step1. Select "L0: Automatic Shut Off Timer" on "5F: Supporting Service" screen and press "OK".



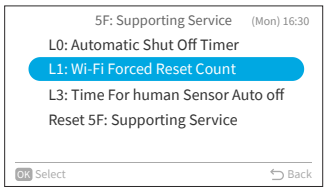
Step2. Press "∧" or "∨" to change the timer value, then press ">" to select "OK" and press "OK". Then it returns to Step1.



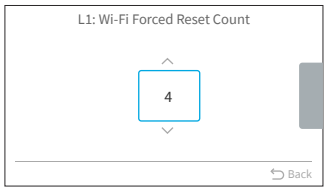
OPTION LIST

Wi-Fi Forced Reset Count

Step1. Select "L1: Wi-Fi Forced Reset Count" on "5F: Supporting Service" screen and press "OK".

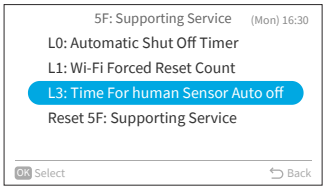


Step2. Press "∧" or "∨" to change the reset count, then press ">" to select "OK" and press "OK". Then it returns to Step1.

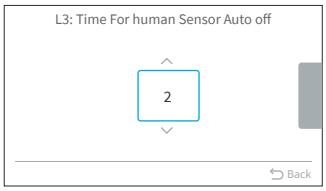


Time For human Sensor Auto off

Step1. Select "L3: Time For human Sensor Auto off" on "5F: Supporting Service" screen and press "OK".



Step2. Press "∧" or "∨" to change the human absence detection time, then press ">" to select "OK" and press "OK". Then it returns to Step1.
Adjustment value of absence time until Auto off execution is as follow.

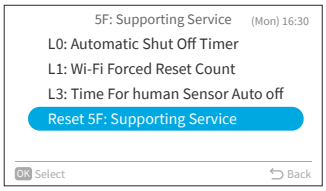


Adjustment value	Time to do Auto off
-3	20 min
-2	30 min
-1	40 min
±0	50 min(default)
+1	60 min
+2	90 min
+3	120 min

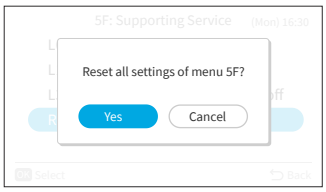
OPTION LIST

Reset 5F: Supporting Service

Step1. Select "Reset 5F: Supporting Service" on "5F: Supporting Service" screen and press "OK".

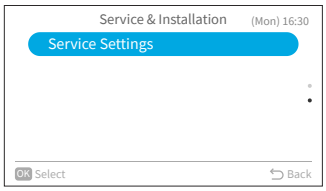


Step2. Select "Yes" and press "OK" to reset all settings of menu 5F. After settings are initialized, it turns to home screen.

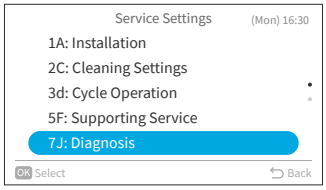


Diagnosis

Step1. Select "Service Settings" on "Service & Installation" screen and press "OK".



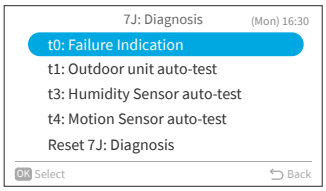
Step2. Select "7J: Diagnosis" and press "OK".



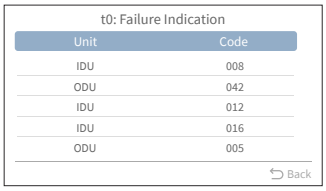
OPTION LIST

Failure Indication

Step1. Select "t0: Failure Indication" on "7J: Diagnosis" screen and press "OK".

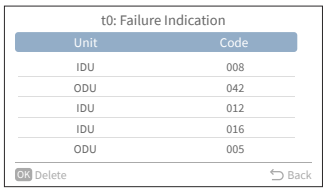


Step2. The failure indication screen is shown.

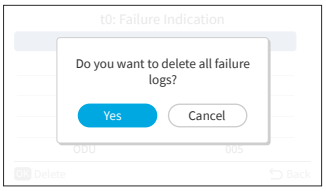


NOTE:

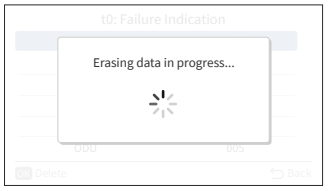
- Second time to go to t0 after indoor unit and wired remote controller is powered on: Failure indication screen with a "Delete".



Step3. Press "OK" and a reminder shows up. Select "Yes" and press "OK" to delete all failure logs.



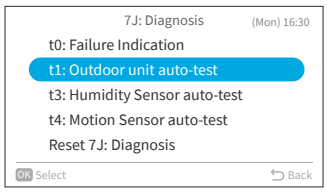
Step4. After completing erasing, it turns to home screen.



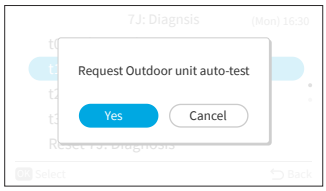
OPTION LIST

Outdoor unit auto-test

Step1. Select "t1: Outdoor unit auto-test" on "7J: Diagnosis" screen and press "OK".

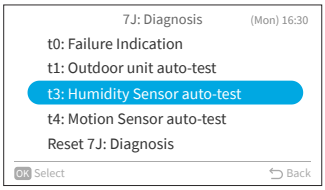


Step2. Select "Yes" and press "OK" to request outdoor unit auto-test. Then it returns to Step1.

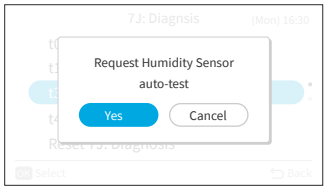


Humidity Sensor auto-test

Step1. Select "t3: Humidity Sensor auto-test" on "7J: Diagnosis" screen and press "OK".



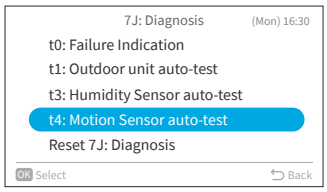
Step2. Select "Yes" and press "OK" to request humidity sensor auto-test. Then it returns to Step1.



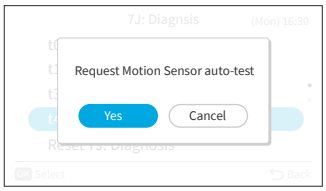
OPTION LIST

Motion Sensor auto-test

Step1. Select "t4: Motion Sensor auto-test" on "7J: Diagnosis" screen and press "OK".

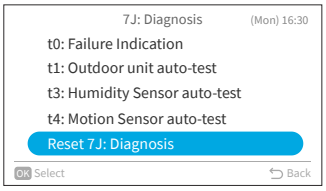


Step2. Select "Yes" and press "OK" to request motion sensor auto-test. Then it returns to Step1.

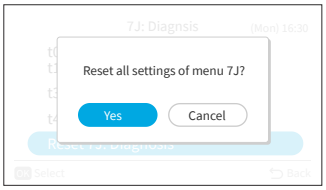


Reset 7J: Diagnosis

Step1. Select "Reset 7J: Diagnosis" on "7J: Diagnosis" screen and press "OK".



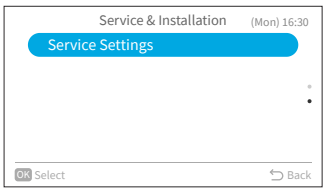
Step2. Select "Yes" and press "OK" to reset all settings of menu 7J. After settings are initialized, it turns to home screen.



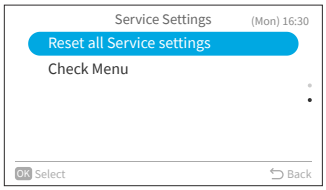
OPTION LIST

Reset All Service Settings

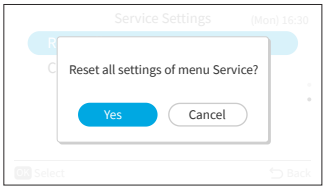
Step1. Select "Service Settings" on "Service & Installation" screen and press "OK".



Step2. Select "Reset all Service settings" and press "OK".



Step3. Select "Yes" and press "OK" to reset all service settings. After settings are initialized, it turns to home screen.



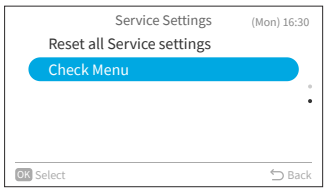
10.7 Contact Information

Check Menu

This menu displays various statuses of the air conditioner.

1. Enter Check Menu

Step1. Select "Check Menu" on the "Service Settings" screen and press "OK".



Each "Check Menu" item and its function is explained in the following table.

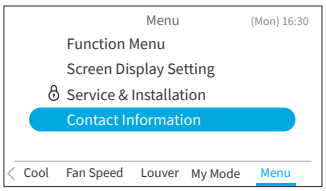
Item	Function
Remote controller auto-test	The wired remote controller checkout process begins and various settings initialize.
Alarm History Display *	Previous alarm history data including date, time, indoor unit number, and alarm code is displayed. (30 Max) The alarm history can be deleted.*

* Press "OK" while the alarm history is displayed, the confirmation screen for deleting the alarm history is displayed. Select "Yes" and press "OK" to delete the alarm history.

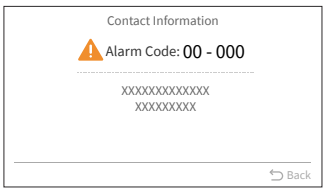
Contact Information

The screen displays service contact information and the latest alarm code.

Step1. Select "Contact Information" on the "Menu" screen and press "OK".



→Display service contact information and the latest alarm code.
Press "⮌" to return to the "Menu" screen.



11.0 H-LINK ADAPTOR – PSC 6RAD

11.1 SAFETY SUMMARY

DANGER:

– DO NOT pour water into the remote control switch *(hereafter called "controller"). This product is equipped* with electrical parts. This will cause serious electrical shock.

WARNING:

– DO NOT perform installation work and electrical wiring connection by yourself. Contact your distributor or dealer of HITACHI and ask then for installation work and electrical wiring by service person. The specified cable should be used to connect (i) room air conditioner and adaptor, and (ii) controller and adaptor.

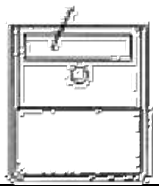
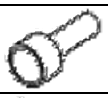
CAUTION:

– DO NOT install the indoor unit, outdoor unit, controller and cable as such places as:
  – where there is oil vapor and dispersion of oil
  – where there is sulfuric environment (near the hot springs)
  – where there is a flammable gas
  – where there is salty environment (near the sea)
– DO NOT install the indoor unit, outdoor unit, controller and cable within approximately 3 meters from strong electromagnetic wave radiators, such as medical equipment. In case that the controller is installed in a place where there is electromagnetic wave direct-radiation, shield the controller and cables by covering with the steel box and running the cable through the metal conduit tube.
– In case that there is electric noise at the power source for the indoor unit, provide a noise filter.

11.2 INSTALLATION WORK

■ Before installation

Check the contents and the number of the accessories in the packing.

Adaptor	 **With two 1.8m cables**
1 piece of cover for hiding the covering	**Attached 2 sided tapes** 
Two-sided tape for attaching to Adaptor	 **110x40x3mm**
2 connectors for H-Link connection	
2 tapping screws for attaching to wall	 **ϕ3.0 x 10mm**
2 screws for attaching to wooden wall	 **ϕ3.1 x 16mm**

1) RAC adaptor can be installed to the wall as well as on the air conditioner itself
2) Install RAC adaptor in the vertical surface as shown below.

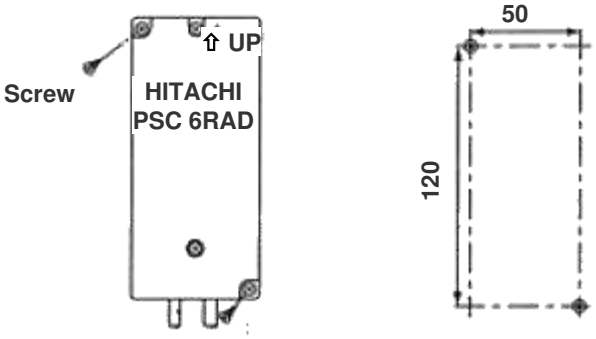
Upper side

Mark "⇧ UP"

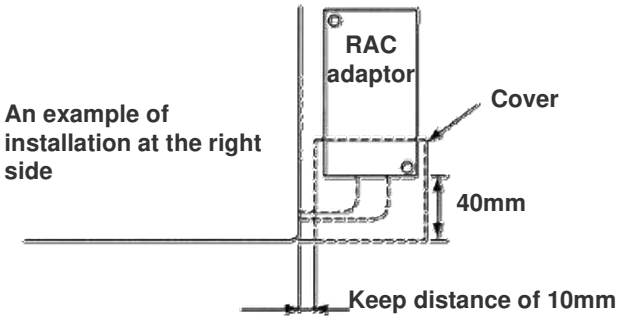
Wiring outlet

Bottom side

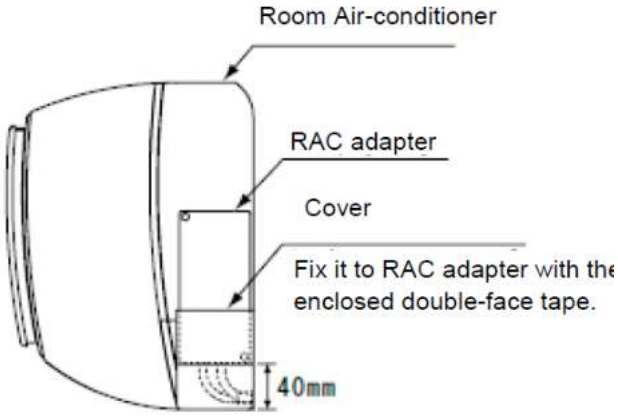
3) Installation procedure
   a) When installing to the wall.
      i) Fix the adaptor with 2 screws. Tapping screw is for metal surface, and other screw is for wooden surface.



      ii) When using the cover
      It can be installed at the right and left side of room air conditioner. Fix the cover and RAC adaptor with the two-sided tape (accessory).



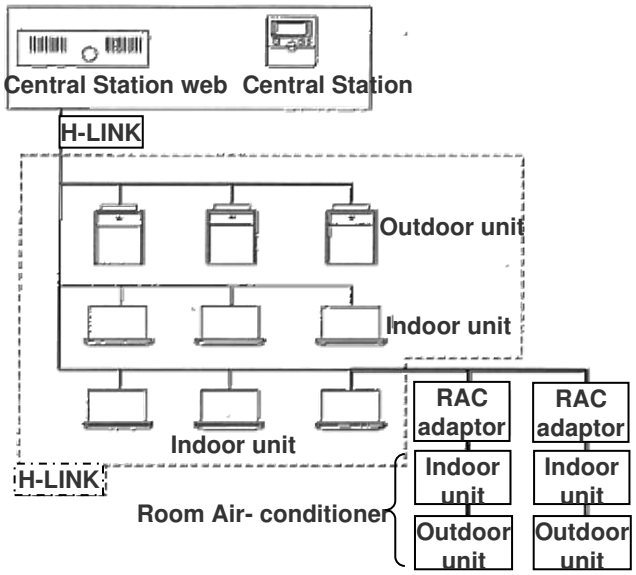
b) When installing on the room air-conditioner
In case that it cannot be installed to the wall due to the space or material problem, install the RAC adaptor with the two-sided tape (accessory) on the room air-conditioner.
   i) Confirm if the piping cover of the unit can be removed when performing the service maintenance, and then fix the RAC adaptor in the side of room air-conditioner with two-sided tape. (Available at the right as well as left side)
   ii) Clean the surface to be installed with a dry cloth.



NOTE:
- Consider the following points since the adhesiveness changes according to the environmental conditions (temperature, humidity etc)
- The adhesiveness is decreased when there is humidity or oil.
- Warm the adhesive part and installation place of the two-sided tape to avoid the decrease of the adhesiveness in case the ambient temperature is low.
- DO NOT touch the adhesive part by fingers nor re-attach it many times. The adhesiveness has decreased and the RAC adaptor may fall off.
- DO NOT apply any force within 24 hours after installation.

11.3 ELECTRICAL WIRING

■ **System configuration**



CAUTION:
- Turn OFF the power supply of the room air-conditioner of the central control device when performing the wiring work
- DO NOT run all the H-LINK cable or power supply cable along the other signal cable, or malfunction may occur due to the noise, etc. If it is required to run along the other transmission cable, separate the cable more than 30cm, or run the cable through the metal tube and earth the tube.
- Follow local codes and regulations when performing electrical wiring and earth wiring.
- Transmissions cable used in H-LINK shall be 2 cores cable (0.7mm^2 to 1.25mm^2 for model: VCTF, VCT, CVV, MVVX, CVVX, VVR, VVF) or 2 cores twisted pair cable (model: KPEV, KPEV-Spec). Total length of cable shall be below 1000mm.
- DO NOT use wire with more than 3 cores.

■ Internal components and Wiring connections

Check the contents and the number of the accessories in the packing.

- Access
  Open the cover by removing the ① and ② screws.

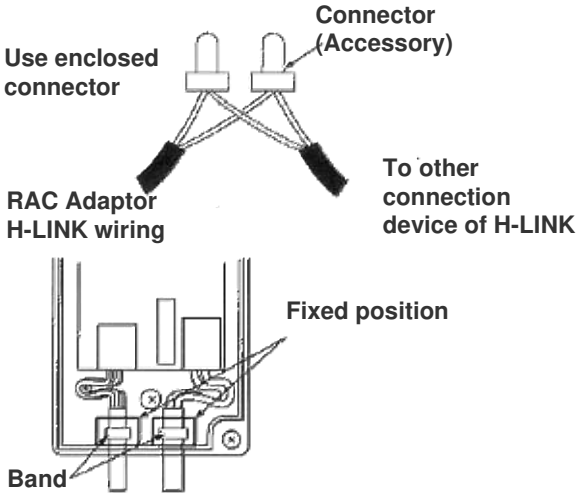
- Wiring Connection
  Connection with Room Air-Conditioner
  i) Remove the front cover of the room air-conditioner and the cover of electrical box.
  ii) The cable attached with the connector of the RAC adaptor shall be connected with the connector of indoor PCB
  iii) Install the electrical box cover paying attention not to clamp the cable. Read the installation manual of each room air-conditioner for confirming how to connect and how to assemble the cable of the RAC adaptor.

CAUTION:

– Disconnect the power plug before performing this work
– Turn OFF the break power source in case the power is supplied from the outdoor unit.

- Connection of Transmission Cable

H-LINK transmission cable connecting to RAC adaptor shall be connected to H-LINK.



CAUTION:

– DO NOT connect incorrect wiring. It may cause the failure of the RAC Adaptor. Especially pay attention not to apply high voltage e.g. AC400/230V.
– DO NOT perform the wiring work while power to the central station or the RAC Adaptor is still being supplied. It may cause malfunction. Turn OFF devices when performing the wiring work.
– The RAC Adaptor side cable should not overload to the connector.
– DO NOT clamp the cable when attaching the RAC adaptor cover.
– Band should not be loose and in fixed position.

11.4 TEST RUN

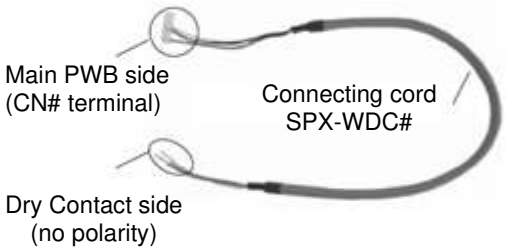
Test run should be performed in the following after finishing the installation, wiring and setting. Refer to the installation manuals enclosed with the control system equipment.

1) Confirmation of RAC Adaptor Connection
   Confirm if the RAC adaptor connection is recognized in the control system equipments. In case that it is not confirmed, check the transmission cable, refrigerant cycle #, indoor unit #, terminal resistance setting etc.
2) Registration
   Confirm if the RAC adaptor connection is recognized.
3) Confirmation of RUN/STOP Operation.
   Confirm if the room air-conditioner operate correctly by RUN/STOP from the central control system equipments. Check also if the room air-conditioner operation changes correctly by each setting.

11.5 DRY CONTACT (SPX-WDC3) APPLICATION (SETTING BASED ON HHRC)

The dry contact system enables the operation of the air conditioner indoor unit to be controlled by using external dry contacts (with non voltage) such as card-key controller or window for facilities such as hotels.

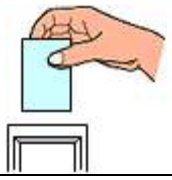
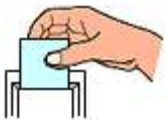
Table 1 (Applicable models and related information)

Optional Connecting cord Accessory SPX-WDC#		Model	DIP SW Label	CN#
	SPX-WDC3	RAK-GJ09PHAA RAK-GJ12PHAA RAK-GJ18PHAA RAK-GJ24PHAA	-	CN6

- Please decide A or B type of dry contact, you can use HHRC method and more details you can refer to page 24.

Function name	Value	Layer 1	Layer 2	Layer 3
		Category	Function	Value
CardKey	Disable	1A	A0	01
	Card Key Input – A Enable			02
	Card Key Input – B Enable			03
	Reserve			04 ~ 99

[1] CHECK DRY CONTACT OF CARD KEY UNIT

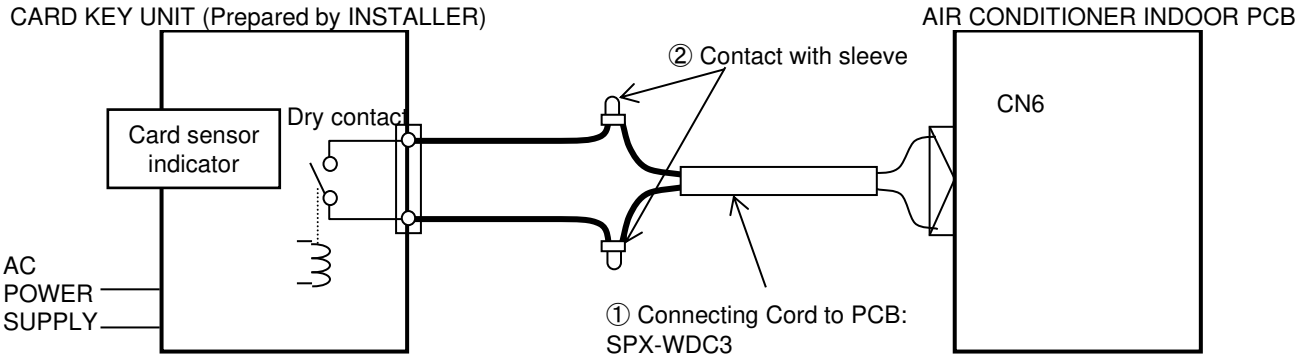
	AIR CONDITIONER Standby	**AIR CONDITIONER Operating**
CARD KEY (Door Switch)	REMOVE 	INSERT 
Contact type A	OPEN 	CLOSE 
Contact type B	CLOSE 	OPEN 

After all connection has been done as below diagram, ON the breaker and push ON button of wireless remote controller or wired remote controller to operate the air conditioner unit.

- When the CARD KEY is in insert condition, the air conditioner operation is allowable by remote controller.
- When the dry contact switch on the Card Key Unit is open (refer to diagram below for contact type a), the unit stops to operate (it takes 10 seconds to stop the unit operation after the dry contact switch on the card key turns off) and vice versa.
- When the card key is removed from the Card Key Unit, the wireless remote controller cannot be used.
- When the card key is removed from the Card Key Unit, the wired remote controller LCD display is activated; however it has no control over the unit.
- The suitable accessory Connecting Cord (accessory code#: SPX-WDC3) need to be used to connect the Card Key Unit's dry contact switch to the connector on the control board of the indoor unit. Please refer to Table 1 to select suitable accessory code# for the concerning indoor model.

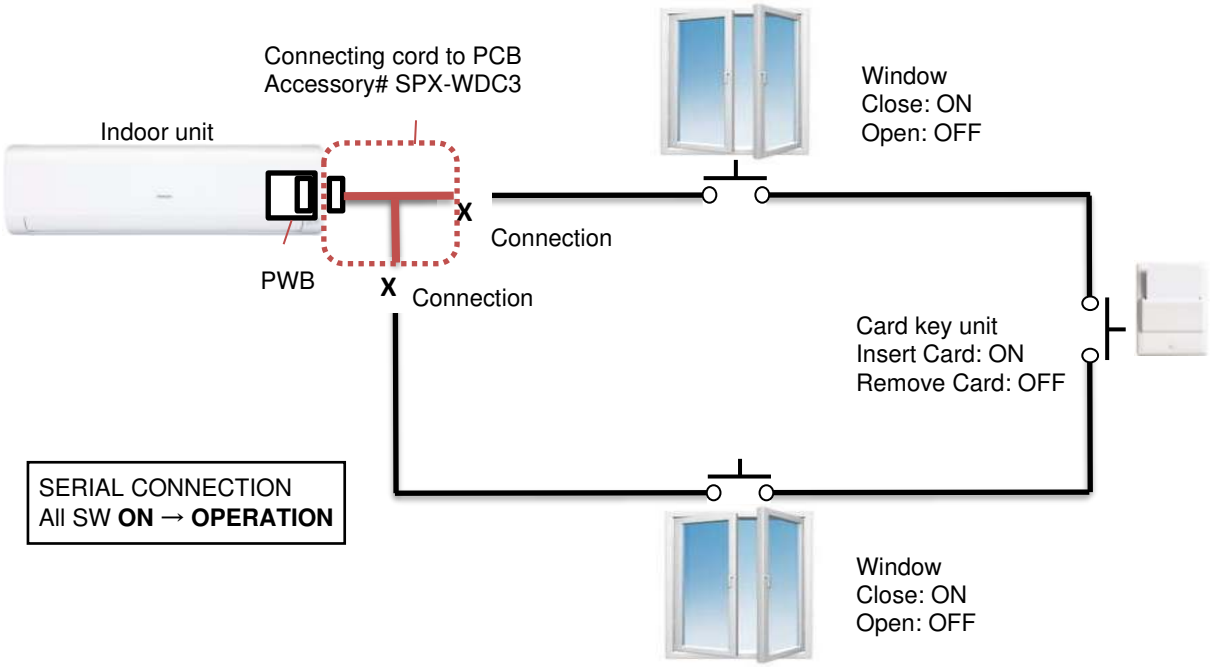
CONTROL AND FUNCTION

Example of wiring connection to Card Key Unit will be as below (reference only)

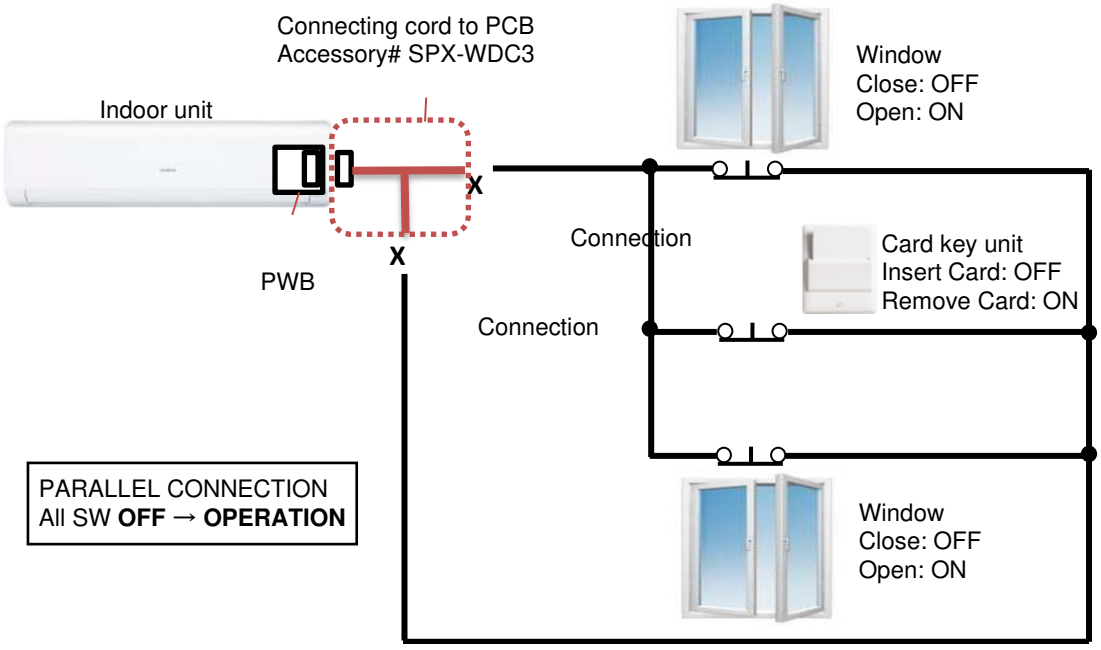


- CONNECTION EXAMPLE

i. HHRC for Dry Contact Type A



ii. HHRC for Dry Contact Type B

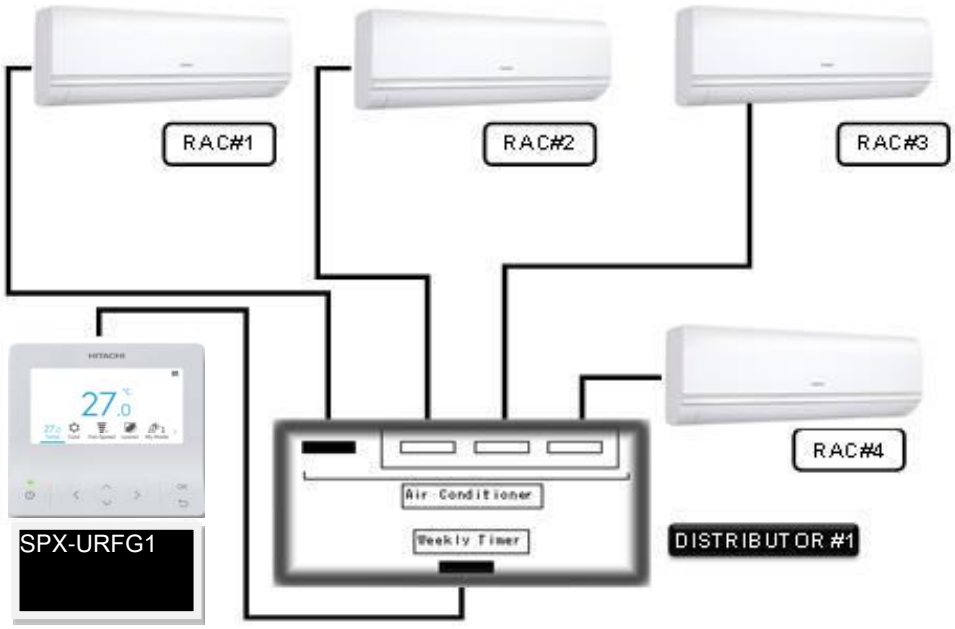


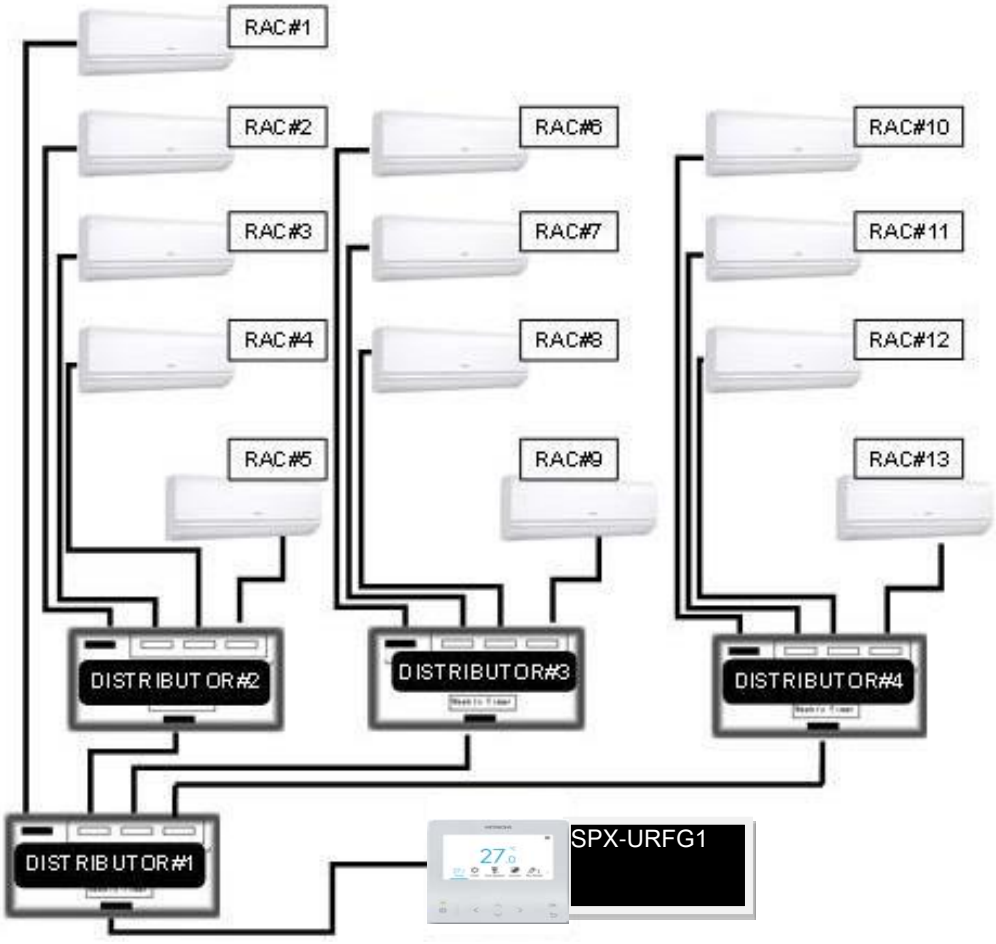
Please refer to the actual manual supplied with the optional connecting cords SPX-WDC3 for more details.

11.6 DISTRIBUTOR – SPX-DST1

The optional distributor is to be used together with the wired remote controller when there is a need to centralize the control of multiple indoor units using only a single wired remote controller.

A single distributor could be connected further to 3 separate distributors so that up to 13 units of indoor could be controlled by a single wired remote controller.





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Johnson Controls Hitachi Air Conditioning Malaysia Sdn. Bhd.

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