



Multi Air Conditioner

SVC MANUAL(Exploded View)

MODEL : A7UW40GFA0 [FM40AH UO2]

CAUTION

Before Servicing the unit, read the safety precautions in General SVC manual.
Only for authorized service personnel.

1. Specification

Outdoor unit				A7UW40GFA0 [FM40AH UO2]
Testing Combination				MS09AQ NB0 x 5EA
Capacity	Cooling	Min.~Rated~Max.	kW	2.8 ~ 11.2 ~ 13.5
		Min.~Rated~Max.	Btu/h	9,600 ~ 38,200 ~ 46,000
	Heating	Min.~Rated~Max.	kW	3.1 ~ 12.5 ~ 15.0
		Min.~Rated~Max.	Btu/h	10,560 ~ 42,700 ~ 51,200
Power Input	Cooling	Min.~Rated~Max.	kW	0.78 ~ 2.73 ~ 4.15
	Heating	Min.~Rated~Max.	kW	0.82 ~ 2.81 ~ 4.45
EER / COP			W / W	4.10 / 4.45
Energy Efficiency Class (Rated)	Cooling / Heating		-	A / A
SEER / SCOP			Wh / Wh	5.60 / 3.81
Energy Efficiency Class (Seasonal)	Cooling / Heating		-	A+ / A
P-design	Cooling / Heating (@-10°C)		kW	11.2 / 11.8
Power Supply			V , Ø , Hz	220-240 / 1 / 50
Running Current	Cooling	Min.~Rated~Max.	A	3.5 ~ 12.1 ~ 18.4
	Heating	Min.~Rated~Max.	A	3.6 ~ 12.5 ~ 19.7
Starting Current	Cooling	Max.	A	-
	Heating	Max.	A	-
Wiring Connections	Power Supply Cable (included Earth)		No. x mm ² (AWG)	3C x 2.5 (18)
	Power and Communication Cable (included Earth)		Outdoor ~ BD unit No. x mm ² (AWG)	4C x 1.25 (16)
Combination	Sum of Indoor Units Capacity		kBtu/h	52
	Number of Indoor Units		EA	7
	Number of BD Units		EA	2
Casing Color			-	Warm Gray
Dimensions	W x H x D		mm	950 x 1,170 x 330
	W x H x D		inch	37-13/32 x 46-1/16 x 13
Net Weight			kg (lbs)	82(180.8)
Compressor	Type		-	Twin Rotary
	Model		Model x No.	GPT442MBA x 1
	Motor type		-	BLDC
	Motor Output		W x No.	4,000 (at 60Hz) x 1
Refrigerant	Type		-	R410A
	Precharged Amount		g (oz)	3,800(134.0)
	Chargeless-Pipe Length	Main Pipe	m (ft)	5(16.4)
		Branch Pipe	m (ft)	35(114.8)
	Additional Charging Volume	Main Pipe	g/m (oz/ft)	20(0.22)
		Branch Pipe	g/m (oz/ft)	50(0.54)
Control		-	Electronic Expansion Valve	
Refrigerant Oil	Type		-	FVC68D
	Charged volume		cc x No.	1,300 x 1
Heat Exchanger	#1_(Row x Column x Fins per inch) x No.		-	(2 x 32 x 14) x 1
	#2_(Row x Column x Fins per inch) x No.		-	(2 x 22 x 14) x 1
Fan	Type		-	Propeller
	Air Flow Rate		m ³ /min x No.	45 x 2
Fan Motor	Type		-	BLDC
	Output		W x No.	85.4 x 2
Sound Pressure Level	Cooling	Rated	dB(A)	53
	Heating	Rated	dB(A)	55
Sound Power Level	Cooling	Rated	dB(A)	67
Piping Connections	Liquid	Outer Dia.	mm(inch) x No.	Ø 9.52 (3/8) * 1EA
	Gas	Outer Dia.	mm(inch) x No.	Ø 19.05 (3/4) * 1EA
Piping Length	Total Piping	Max.	m (ft)	100 (328.1)
	Main Piping	Max.	m (ft)	50 (164.0)
	Total Branch Piping	Max.	m (ft)	50 (164.0)
	Each Branch Piping	Max.	m (ft)	15 (49.2)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	30 (98.4)
	Indoor Unit ~ Indoor Unit	Max.	m (ft)	15 (49.2)
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-10 (14.0) ~ 48 (118.4)
	Heating	Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)

Note:

- All data are based on the following conditions:
 - Cooling Temperature : Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB
Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB
 - Heating Temperature : Indoor 20°C(68°F) DB / 15°C(59°F) WB
Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
 - Piping Length : Interconnected Pipe Length = 5m
 - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- Wiring cable size must comply with the applicable local and national code.
- Due to our policy of innovation some specifications may be changed without notification.
- Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased(maximum 3dB(A)) owing to ambient conditions during operation.

2. List of Functions & Accessory

2.1 List of Functions

Category	Function	A7UW40GFA0 [FM40AH UO2]
Reliability	Defrost / Deicing	O
	High Pressure Switch	X
	Low Pressure Switch	X
	Phase protection	O
	Restart Delay (3-minutes)	O
	Self Diagnosis	O
	soft start	O
	Test Function	O
Convenience	Auto operation(Artificial intelligence)	O
	Wiring Error Check	O
	Night Quiet Mode	O
	Peak Control	O
	Mode Lock	O
	Forced Operation	O
	Auto Restart Operation	O
CAC Network Function	Central control(LGAP)	O
	Dry contact	O
	PDI(Power Distribution Indicator)	O
	PI485	O

Note :

O : Applied, X : Not applied

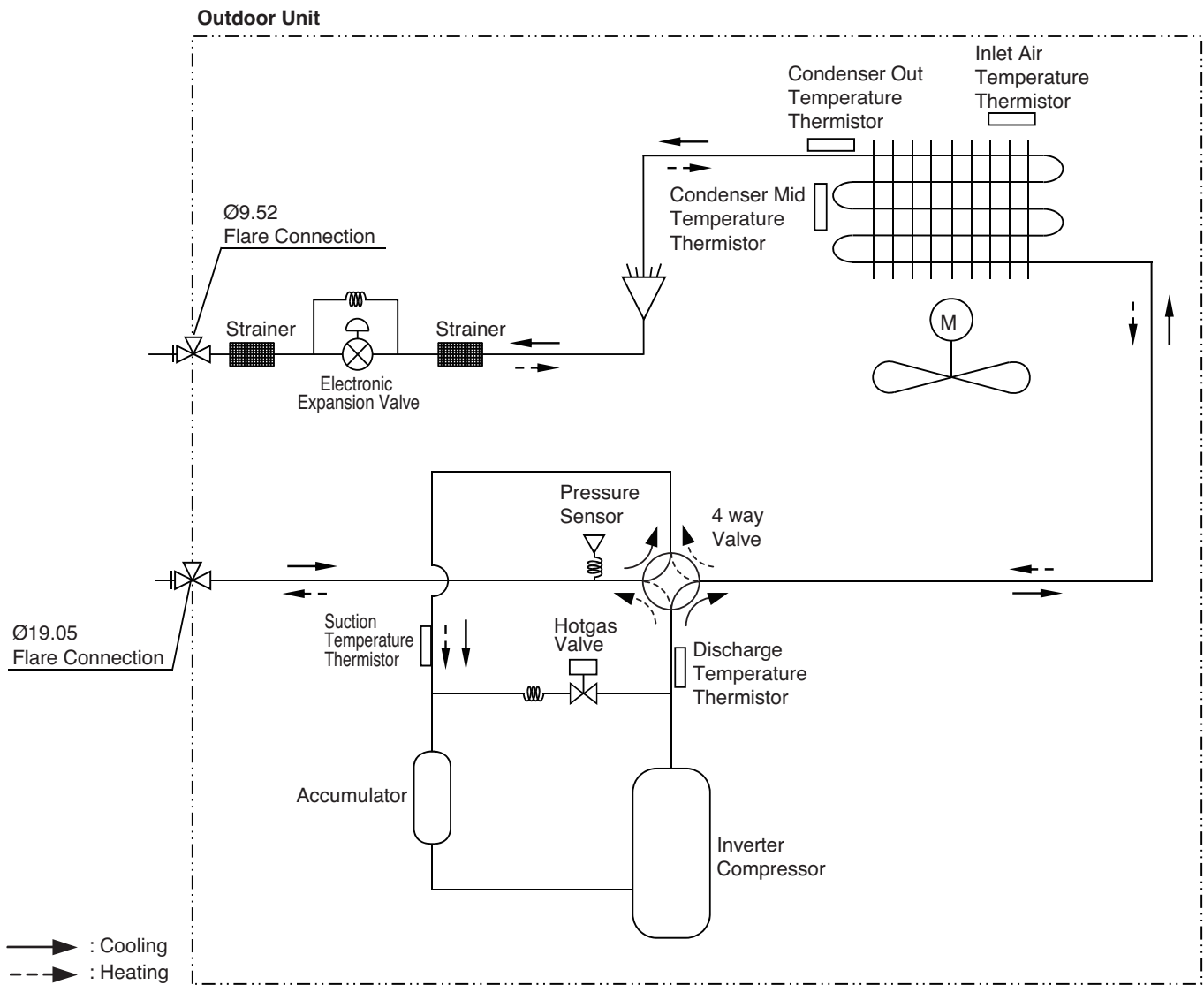
* Option : Model name & price are different according to options, and assembled in factory with main unit.

Accessory model name : Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

2.2 List of Accessory

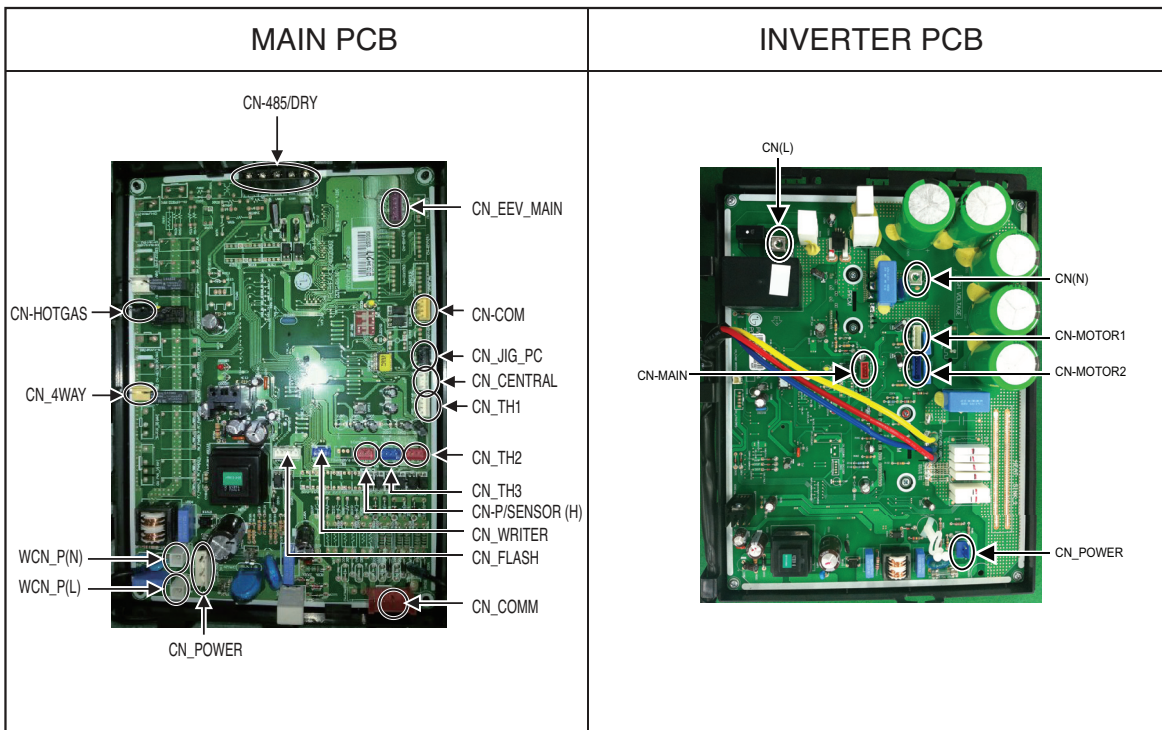
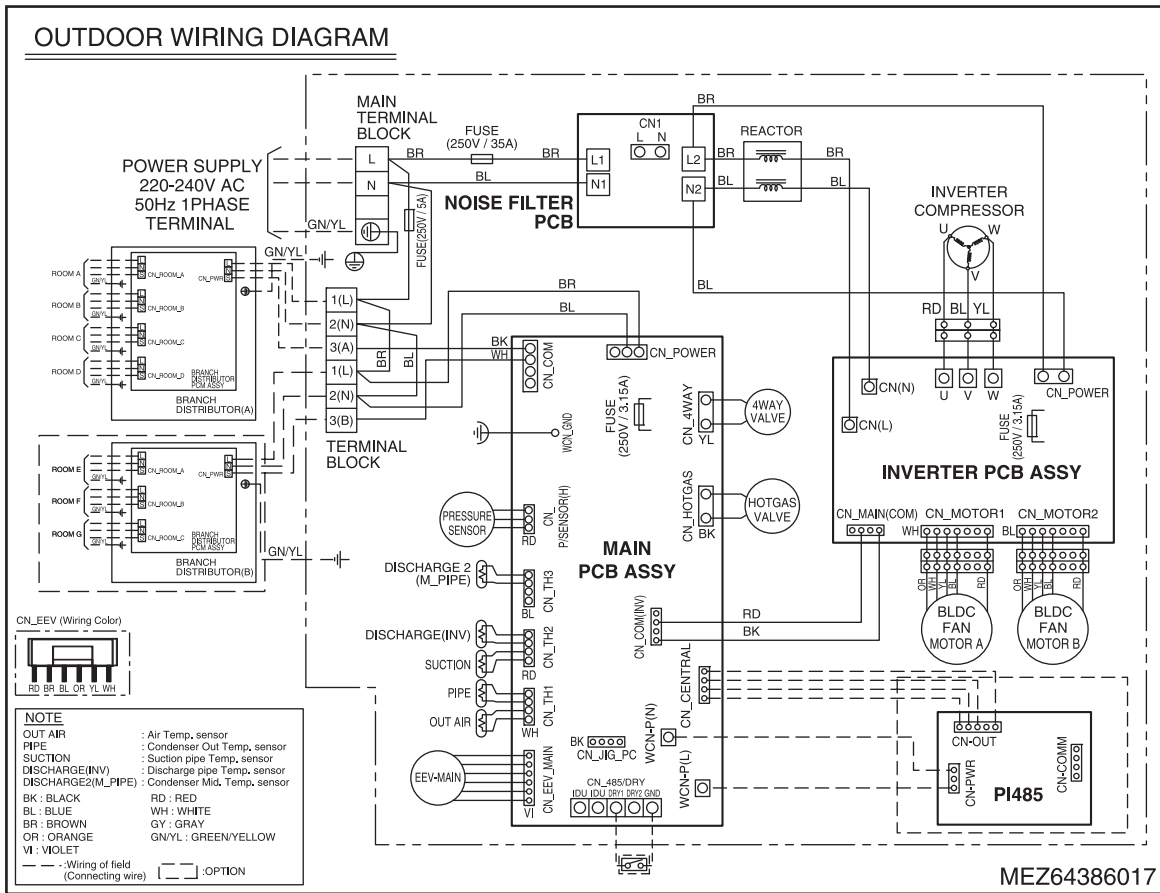
Device		A7UW40GFA0 [FM40AH UO2]
Central Controller	Simple Controller	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0
	AC Smart II	PQCSW320A1E
	Option Kit (SD card type)	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	PQCPA11A0E / PQCPB11A0E
	AC Manager	PQCSS520A0E
	PI485	PMNFP14A0/PMNFP14A1
	DO(Digital Output) Kit	PQNFP00T0
BNU (Building Network Unit)	LONWORKS Gateway	PQNFB16A1
	BACnet Gateway	PQNFB17B0
Installation	Y branch	PMBL5620
	Header branch	PMBL1203F0
	Air Guide	X
	BD Unit	PMBD3620, PMBD3630, PMBD3640
ODU Dry Contact		O
Low Ambient Kit		O (Logical operation)

3. Piping Diagrams

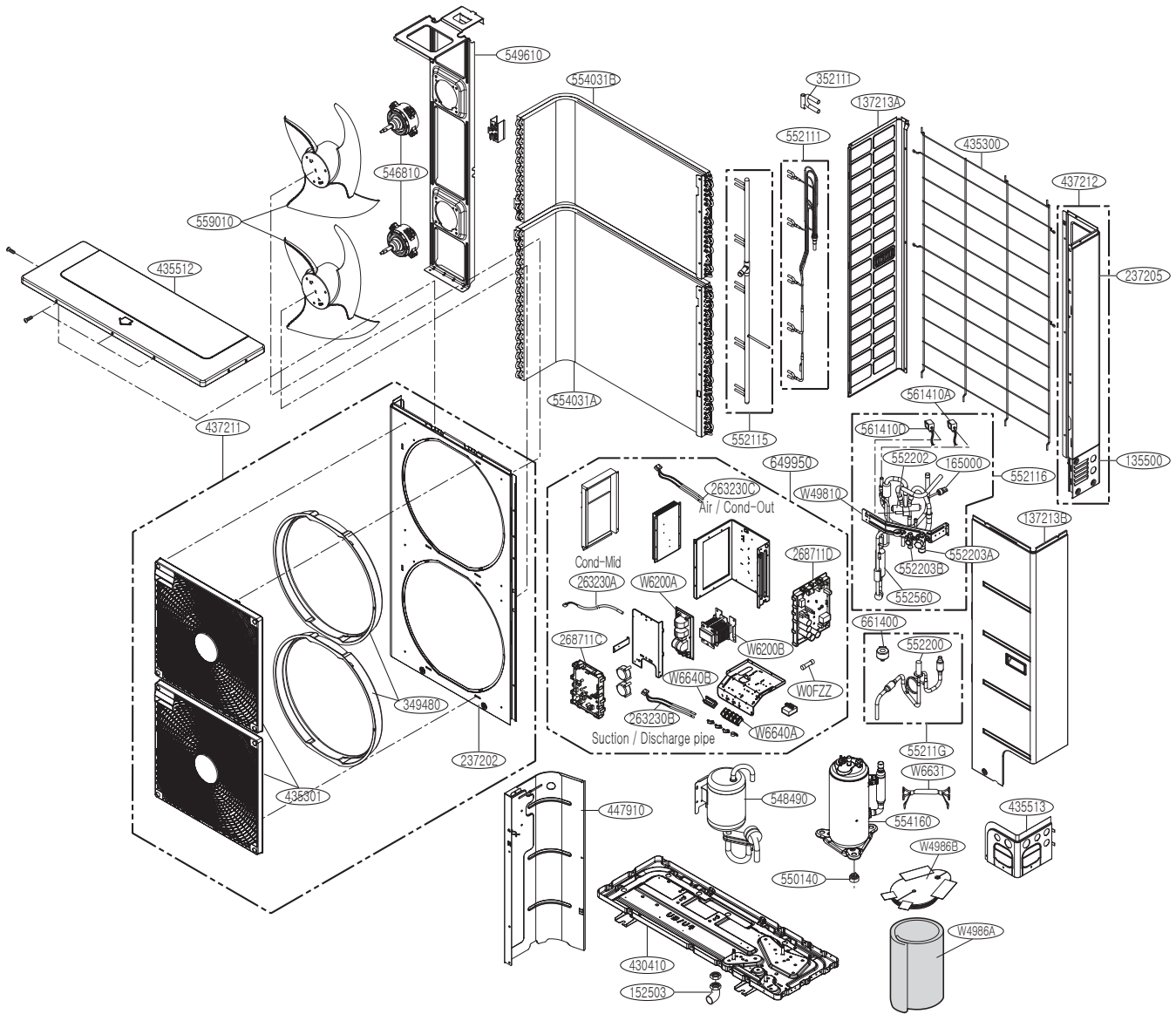


PCB Connector	Description
CN-TH1	Air / Cond Out
CN-TH2	Suction / Discharge
CN-TH3	Cond Mid
CN-P/SENSOR(H)	Pressure Sensor
CN-EEV-MAIN	Electronic Expansion Valve
CN-HOTGAS	Hotgas Valve

4. Wiring Diagrams



5. Exploded View



Location No.	PCB Connector	Description	Housing Color
263230C	CN-TH1	Air / Cond Out	White
263230B	CN-TH2	Suction / Discharge	Red
263230A	CN-TH3	Cond Mid	Blue
165000	CN-P/SENSOR(H)	Pressure Sensor	Red



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