FUJITSU

Refrigerant R410A INVERTER

AIR CONDITIONER

Cassette type

DESIGN & TECHNICAL MANUAL

INDOOR

AUU42RGLX
AUU48RGLX

OUTDOOR

AOU42RGLX
AOU48RGLX

FUJITSU GENERAL LIMITED

DR_AU052EF_01
2022.12.14

Notices:

- Product specifications and design are subject to change without notice for future improvement.
- For further details, please check with our authorized dealer.

Copyright © 2022 Fujitsu General Limited. All rights reserved.

CONTENTS

Part 1. INDOOR UNIT 1

1. Specifications 2

2. Dimensions 4

2-1. Models: AUU42RGLX and AUU48RGLX 4

2-2. Installation space requirement 5

3. Wiring diagram 7

3-1. Models: AUU42RGLX and AUU48RGLX 7

4. Capacity table 8

4-1. Cooling capacity 8

4-2. Heating capacity 10

5. Fan performance 11

5-1. Air velocity distributions 11

5-2. Airflow 15

5-3. Fresh air characteristics 17

6. Operation noise (sound pressure) 20

6-1. Noise level curve 20

6-2. Sound level check point 21

7. Safety devices 22

8. External input and output 23

8-1. External input 24

8-2. External output 25

8-3. Combination of external input and output 26

8-4. Details of function 29

9. Function settings 43

9-1. Function settings on indoor unit 43

9-2. Contents of function setting 45

10. Accessories 52

11. Optional parts 53

11-1.Controllers 53

11-2.Cassette grille 54

11-3.Others 54

CONTENTS (continued)

Part 2. OUTDOOR UNIT 57

1. Specifications 58

2. Dimensions 59

2-1. Models: AOU42RGLX and AOU48RGLX 59

3. Installation space 60

3-1. Models: AOU42RGLX and AOU48RGLX 60

4. Refrigerant circuit 63

4-1. Models: AOU42RGLX and AOU48RGLX 63

5. Wiring diagrams 64

5-1. Models: AOU42RGLX and AOU48RGLX 64

6. Capacity compensation rate for pipe length and height difference 65

6-1. Models: AOU42RGLX and AOU48RGLX 65

7. Additional charge calculation 66

7-1. Models: AOU42RGLX and AOU48RGLX 66

8. Airflow 67

8-1. Model: AOU42RGLX 67

8-2. Model: AOU48RGLX 67

9. Operation noise (sound pressure) 68

9-1. Noise level curve 68

9-2. Sound level check point 69

10. Electrical characteristics 70

11. Safety devices 71

12. External input and output 72

12-1.External input 72

12-2.External output 74

13. Function settings 76

13-1.Local setting switch buttons 76

13-2.Local setting procedure 78

14. Accessories 81

14-1.Models: AOU42RGLX and AOU48RGLX 81

15. Optional parts 82

Part 1. INDOOR UNIT

CASSETTE TYPE:

AUU42RGLX
AUU48RGLX

CASSETTE TYPE
AUU42-48RGLX

1. Specifications

Type					Cassette	
					Inverter, Heat pump	
Model name					AUU42RGLX	AUU48RGLX
Power supply					208/230 V~ 60 Hz	
Power supply intake					Outdoor unit	
Available voltage range					187—253 V	
Capacity	Cooling	Rated		kW	12.31	14.07
				Btu/h	42,000	48,000
		Min.—Max.		kW	5.01—13.19	5.01—14.65
				Btu/h	17,100—45,000	17,100—50,000
	Heating	47 °FDB (Outdoor temp.)	Rated	kW	13.77	15.50
				Btu/h	47,000	53,000
			Min.—Max.	kW	5.28—14.95	5.28—16.12
				Btu/h	18,000—51,000	18,000—55,000
		17°FDB (Outdoor temp.) *1	Rated	kW	8.62	9.20
				Btu/h	29,400	31,400
			Max.	kW	12.02	12.48
				Btu/h	41,000	42,600
		5°FDB (Outdoor temp.) *2	Rated	kW	9.96	10.32
				Btu/h	34,000	35,200
			Max.	kW	10.56	10.58
				Btu/h	36,020	36,090
Input power	Cooling	Rated		kW	3.72	4.75
		Min.—Max.			0.63—4.35	0.63—4.91
	Heating	47°FDB (Outdoor temp.)	Rated		3.74	4.49
			Min.—Max.		0.55—4.39	0.55—4.67
		17°FDB (Outdoor temp.) *1	Rated		3.10	3.57
			Max.		4.38	4.66
		5°FDB (Outdoor temp.) *2	Rated		4.37	4.69
			Max.		4.39	4.66
	Fan	HIGH		W	106	129
		MED			60	95
		LOW			45	55
		QUIET			30	34
Current	Cooling	Rated		A	16.7	20.9
	Heating				16.8	19.7
EER2		Cooling		kW/kW	3.31	2.96
				Btu/hW	11.3	10.1
COP2		Heating		kW/kW	3.68	3.46
				Btu/hW	12.6	11.8
SEER2				Btu/hW	19.0	18.2
HSPF2					9.8	9.0
Power factor	Cooling			%	97	
	Heating				97	
Moisture removal				pints/h (L/h)	9.3 (4.4)	10.6 (5.0)
Maximum operating current *3		Cooling		A	19.7	22.2
		Heating			19.7	20.7
Fan	Airflow rate	Cooling	HIGH	CFM (m^3/h)	1,177 (2,000)	1,236 (2,100)
			MED		971 (1,650)	1,048 (1,780)
			LOW		859 (1,460)	942 (1,600)
			QUIET		765 (1,300)	777 (1,320)
		Heating	HIGH		1,177 (2,000)	1,236 (2,100)
			MED		971 (1,650)	1,048 (1,780)
			LOW		859 (1,460)	942 (1,600)
			QUIET		765 (1,300)	777 (1,320)
	Type × Qty				Turbo fan × 1	
	Motor output			W	81	
Sound pressure level *4		Cooling	HIGH	dB (A)	46	47
			MED		42	43
			LOW		39	40
			QUIET		35	36
		Heating	HIGH		46	47
			MED		42	43
			LOW		39	40
			QUIET		35	36
Heat exchanger type		Dimensions (H × W × D)		in (mm)	Main 1: 9-15/16 × 83-7/8 × 1/2 (252 × 2,131 × 13.3) Main 2: 9-15/16 × 81-1/4 × 1/2 (252 × 2,064 × 13.3) Main 3: 9-15/16 × 78-11/16 × 1/2 (252 × 1,999 × 13.3)	
		Fin pitch		FPI	20	
		Rows × Stages			3 × 12	
		Pipe type			Copper tube	
		Fin type			Aluminum	
Dimensions (H × W × D)	Net			in (mm)	11-5/16 × 33-1/16 × 33-1/16 (288 × 840 × 840)	
	Gross				13-3/8 × 37-13/16 × 37-3/8 (340 × 960 × 950)	
Weight	Net			lb (kg)	64 (29)	
	Gross				73 (33)	
Connection pipe	Size	Liquid		in (mm)	Ø3/8 (9.52)	
		Gas			Ø5/8 (15.88)	
	Method				Flare	
Drain hose	Material				PVC	
	Tip diameter			in (mm)	Ø1 (25) (I.D.), Ø1-1/16 (26.6) (O.D.)	
Operation range		Cooling		°F (°C)	64 to 90 (18 to 32)	
				%RH	80 or less	
		Heating		°F (°C)	60 to 86 (16 to 30)	

CASSETTE TYPE
AUU42-48RGLX

Type					Cassette	
					Inverter, Heat pump	
Model name					AUU42RGLX	AUU48RGLX
Cassette grille (Option)	Material				PS	
	Color				UTG-GCGF: White Approximate color of Munsell N 9.25/ UTG-LCGVCB: Black Approximate color of Munsell N 2	
	Dimensions (H × W × D)	Net		in (mm)	2-1/16 × 37-3/8 × 37-3/8 (53 × 950 × 950)	
		Gross			4-5/16 × 39-3/8 × 39-3/4 (110 × 1,000 × 1,010)	
	Weight	Net		lb (kg)	13 (6)	
		Gross			22 (10)	
Remote controller (Option)					Wireless, Wired	

NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FWB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).
  - Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).
  - *1: Heating (17°F): Indoor temperature of 70°FDB (21.11°CDB)/60°FWB (15.56°CWB), and outdoor temperature of 17°FDB (-8.33°CDB)/15°FWB (-9.44°CWB).
  - *2: Heating (5°F): Indoor temperature of 70°FDB (21.11°CDB)/60°FWB (15.56°CWB), and outdoor temperature of 5°FDB (-15.0°CDB)/4°FWB (-15.56°CWB).
  - Test conditions are based on AHRI 210/240 2023.
  - Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *3: Maximum operating current is the total current of the indoor unit and the outdoor unit.
- *4: Sound pressure level
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

M condition						
Model name					AUU42RGLX	AUU48RGLX
Capacity	Cooling	Rated		kW	12.31	14.07
				Btu/h	42,000	48,000
		Min.—Max.		kW	5.01—13.19	5.01—14.65
				Btu/h	17,100—45,000	17,100—50,000
	Heating	47 °FDB (Outdoor temp.)	Rated	kW	13.77	15.50
				Btu/h	47,000	53,000
			Min.—Max.	kW	5.28—14.95	5.28—16.12
				Btu/h	18,000—51,000	18,000—55,000
		17°FDB (Outdoor temp.) *	Rated	kW	8.62	9.20
				Btu/h	29,400	31,400
			Max.	kW	12.02	12.48
				Btu/h	41,000	42,600
Input power	Cooling	Rated		kW	3.72	4.75
		Min.—Max.			0.63—4.35	0.63—4.91
	Heating	47°FDB (Outdoor temp.)	Rated		3.74	4.49
			Min.—Max.		0.55—4.39	0.55—4.67
		17°FDB (Outdoor temp.) *	Rated		3.10	3.57
			Max.		4.38	4.66
	Fan	HIGH		W	106	129
		MED			60	95
		LOW			45	55
		QUIET			30	34
Current	Cooling	Rated		A	16.7	20.9
	Heating				16.8	19.7
EER		Cooling		kW/kW	3.31	2.96
				Btu/hW	11.3	10.1
COP		Heating		kW/kW	3.68	3.46
				Btu/hW	12.6	11.8
SEER				Btu/hW	18.5	17.8
HSPF					9.7	10.6
Power factor	Cooling			%	97	
	Heating				97	

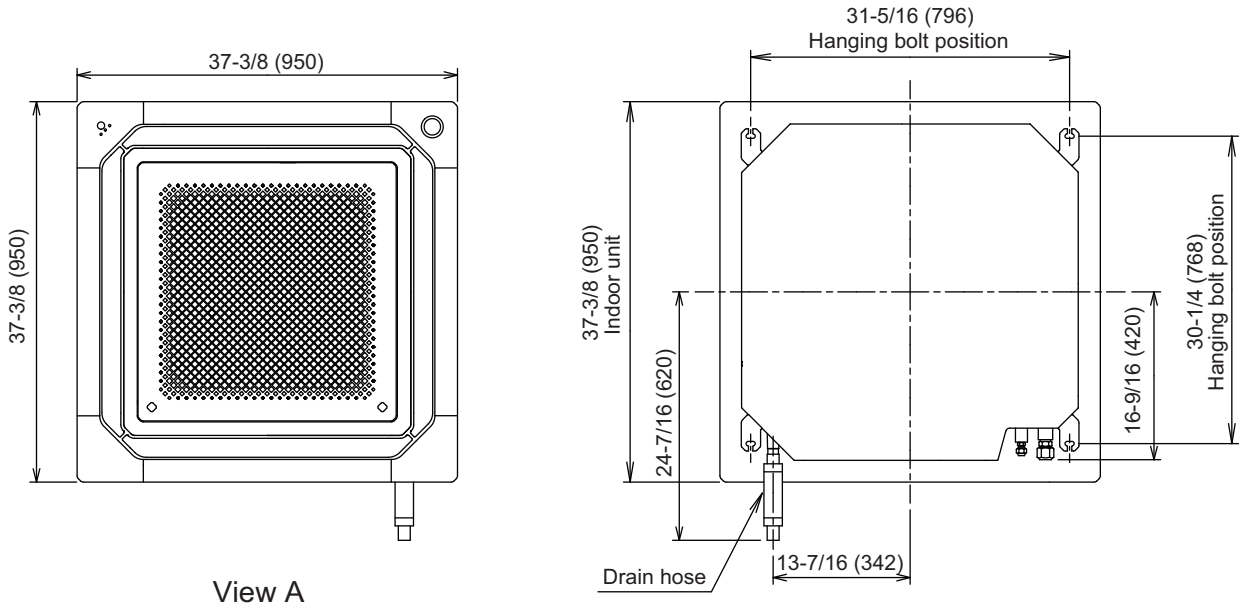
NOTES:

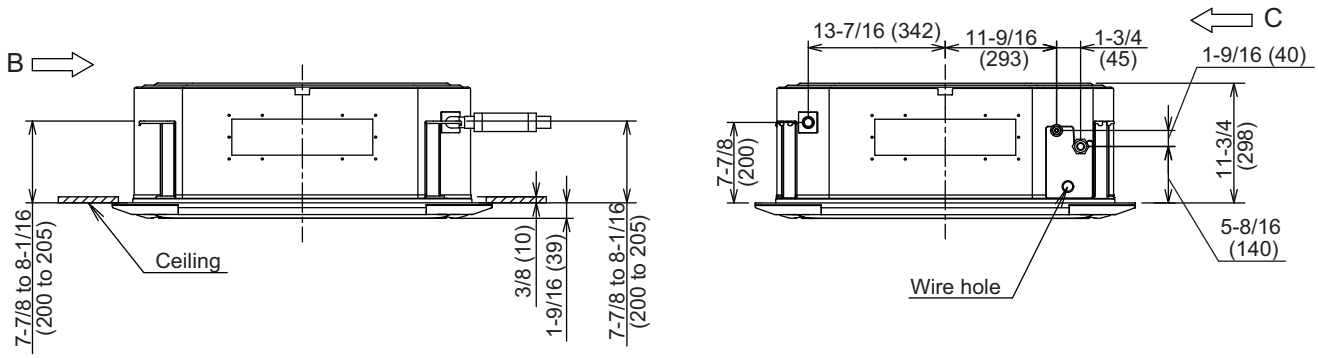
Specifications are based on the following conditions:

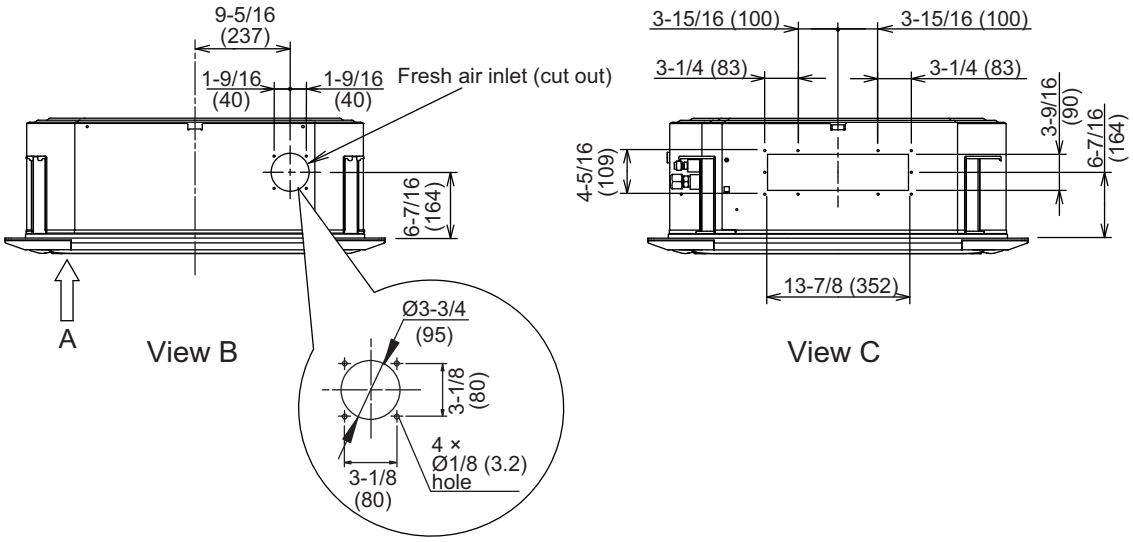
- Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FWB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).
- Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).
- *: Heating (17°F): Indoor temperature of 70°FDB (21.11°CDB)/60°FWB (15.56°CWB), and outdoor temperature of 17°FDB (-8.33°CDB)/15°FWB (-9.44°CWB).
- Test conditions are based on AHRI 210/240 2017.
- Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)

2. Dimensions

2-1. Models: AUU42RGLX and AUU48RGLX







CASSETTE TYPE
AUU42-48RGLX

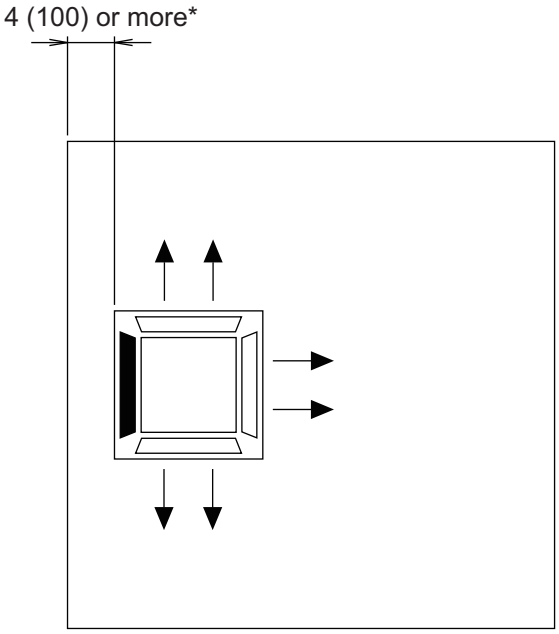
2-2. Installation space requirement

Provide sufficient installation space for product safety.

- **For 4-direction setting:**
  *: For switching the ceiling mode, refer to "Contents of function setting" on page 45.

- **For 3-direction setting:**

Unit: in (mm)



NOTES:

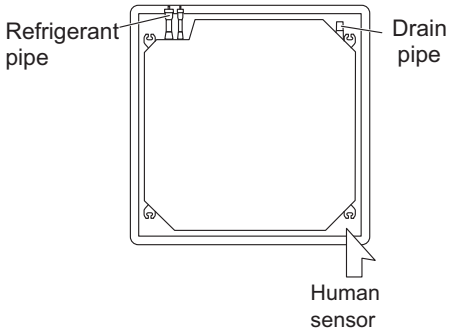
- To set “3-direction”, optional Air Outlet Shutter Plate (UTR-YDZK) must be installed, and the “outlet-direction” need to be switched to “3-way” by remote controller.
  *: When installing the indoor unit, be careful about the maintenance space.
- The ceiling height cannot be set in the 3-way outlet mode. Therefore, ceiling height setting change by function setting 20 is prohibited. For details, refer to "Contents of function setting" on page 45.

CASSETTE TYPE
AUU42-48RGLX

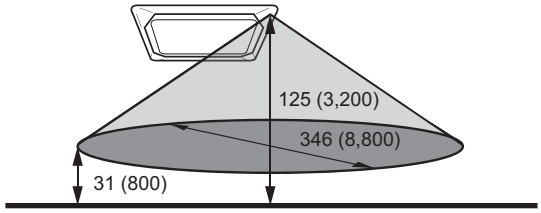
- **Human sensor (Option)**

NOTE: A separate device capable of controlling the human sensor (energy saving) function, such as the Touch Panel Controller, is required for use.

Top view



Example of sensitivity range:



Equal sensitivity range of temperature	Ceiling height	125 in (3,200 mm)
	Detecting position	31 in (800 mm) from floor surface

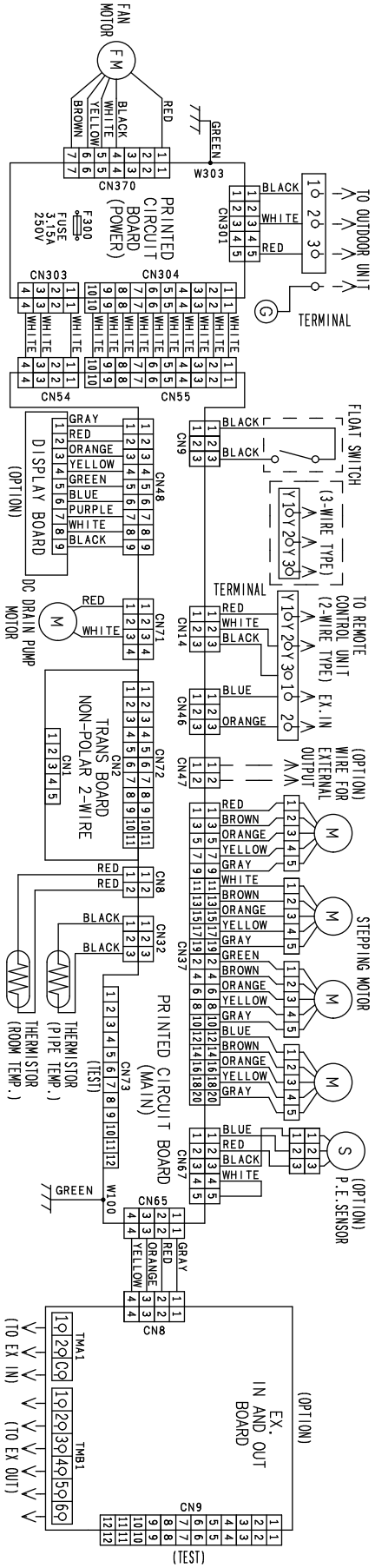
NOTE: When the installation height gets higher, the temperature sensitivity decreases.

⚠ CAUTION

Do not place large objects near the human sensor. Also keep heating units outside the sensor's detection area.

3. Wiring diagram

3-1. Models: AUU42RGLX and AUU48RGLX



CASSETTE TYPE
AUU42-48RGLX

4. Capacity table

Capacity tables show each of following values calculated based on the outdoor temperature and the indoor temperature, under given Airflow Rate (AFR):

For cooling capacity: Total Capacity (TC), Sensible Heat Capacity (SHC), and Input Power (IP)
For heating capacity: Total Capacity (TC) and Input Power (IP)

4-1. Cooling capacity

■ Model: AUU42RGLX

AFR	CFM	1,177

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	32.16	25.58	1.12	35.82	25.72	1.13	38.26	28.02	1.15	40.70	30.28	1.15	43.15	30.18	1.17	45.61	32.14	1.18
	5	31.86	25.49	1.19	35.49	25.62	1.21	37.91	27.91	1.22	40.32	30.17	1.23	42.75	30.07	1.25	45.18	32.02	1.26
	15	31.53	25.39	1.23	35.13	25.55	1.25	37.53	27.81	1.26	39.93	30.07	1.27	42.33	29.97	1.28	44.73	31.92	1.30
	32	31.26	24.99	1.30	34.80	25.12	1.31	37.19	27.38	1.33	39.57	29.61	1.34	41.94	29.48	1.36	44.31	31.42	1.37
	41	30.84	24.93	1.37	34.35	25.09	1.40	36.69	27.32	1.41	39.03	29.54	1.43	41.37	29.41	1.43	43.71	31.36	1.45
	50	30.51	25.03	1.46	33.99	25.19	1.48	36.32	27.42	1.50	38.64	29.64	1.51	40.95	29.54	1.53	43.26	31.45	1.54
	59	30.30	25.26	1.58	33.78	25.42	1.60	36.08	27.68	1.62	38.37	29.94	1.64	40.68	29.81	1.66	42.99	31.75	1.67
	67	31.14	24.60	1.82	34.68	24.76	1.84	37.07	26.95	1.87	39.42	29.15	1.88	41.79	29.05	1.91	44.16	30.93	1.92
	77	32.28	25.62	2.17	35.97	25.75	2.20	38.42	28.06	2.23	40.86	30.33	2.25	43.32	30.23	2.27	45.78	32.21	2.29
	87	33.90	25.82	3.26	37.77	25.95	3.31	40.35	28.27	3.34	42.93	30.56	3.38	45.51	30.47	3.41	48.06	32.44	3.45
	95	33.18	25.62	3.58	36.96	25.78	3.64	39.48	28.08	3.68	42.00	30.37	3.72	44.52	30.23	3.75	47.04	32.21	3.79
	104	30.48	24.17	3.70	33.96	24.33	3.75	36.27	26.49	3.79	38.58	28.65	3.83	40.89	28.52	3.86	43.20	30.40	3.90
	115	24.78	21.23	3.17	27.60	21.37	3.22	29.48	23.28	3.25	31.35	25.16	3.28	33.24	25.06	3.32	35.13	26.71	3.35

AFR	m^3/h	2,000

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	9.43	7.50	1.12	10.50	7.54	1.13	11.21	8.21	1.15	11.93	8.88	1.15	12.65	8.85	1.17	13.37	9.42	1.18
	-15.0	9.34	7.47	1.19	10.40	7.51	1.21	11.11	8.18	1.22	11.82	8.84	1.23	12.53	8.81	1.25	13.24	9.38	1.26
	-10.0	9.24	7.44	1.23	10.30	7.49	1.25	11.00	8.15	1.26	11.70	8.81	1.27	12.41	8.78	1.28	13.11	9.35	1.30
	0.0	9.16	7.32	1.30	10.20	7.36	1.31	10.90	8.03	1.33	11.60	8.68	1.34	12.29	8.64	1.36	12.99	9.21	1.37
	5.0	9.04	7.31	1.37	10.07	7.35	1.40	10.75	8.01	1.41	11.44	8.66	1.43	12.12	8.62	1.43	12.81	9.19	1.45
	10.0	8.94	7.33	1.46	9.96	7.38	1.48	10.64	8.04	1.50	11.32	8.69	1.51	12.00	8.66	1.53	12.68	9.22	1.54
	15.0	8.88	7.40	1.58	9.90	7.45	1.60	10.57	8.11	1.62	11.25	8.77	1.64	11.92	8.74	1.66	12.60	9.31	1.67
	19.4	9.13	7.21	1.82	10.16	7.26	1.84	10.86	7.90	1.87	11.55	8.54	1.88	12.25	8.51	1.91	12.94	9.06	1.92
	25.0	9.46	7.51	2.17	10.54	7.55	2.20	11.26	8.22	2.23	11.98	8.89	2.25	12.70	8.86	2.27	13.42	9.44	2.29
	30.0	9.94	7.57	3.26	11.07	7.61	3.31	11.83	8.29	3.34	12.58	8.96	3.38	13.34	8.93	3.41	14.09	9.51	3.45
	35.0	9.72	7.51	3.58	10.83	7.56	3.64	11.57	8.23	3.68	12.31	8.90	3.72	13.05	8.86	3.75	13.79	9.44	3.79
	40.0	8.93	7.08	3.70	9.95	7.13	3.75	10.63	7.76	3.79	11.31	8.40	3.83	11.98	8.36	3.86	12.66	8.91	3.90
	46.1	7.26	6.22	3.17	8.09	6.26	3.22	8.64	6.82	3.25	9.19	7.37	3.28	9.74	7.34	3.32	10.30	7.83	3.35

CASSETTE TYPE
AUU42-48RGLX

■ Model: AUU48RGLX

AFR	CFM	1,236

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	35.71	28.50	1.77	39.81	28.66	1.80	42.52	31.23	1.82	45.23	33.77	1.83	47.94	33.64	1.85	50.65	35.85	1.87
	5	35.58	28.40	1.80	39.66	28.56	1.84	42.36	31.12	1.85	45.06	33.65	1.87	47.76	33.52	1.89	50.46	35.72	1.90
	15	35.22	26.73	1.89	39.24	26.89	1.93	41.93	29.26	1.95	44.58	31.67	1.96	47.28	31.54	1.99	49.95	33.61	2.01
	32	35.04	26.33	1.95	39.03	26.48	1.99	41.69	28.82	2.01	44.34	31.16	2.03	47.01	31.04	2.05	49.65	33.08	2.06
	41	34.74	26.39	2.00	38.70	26.55	2.03	41.33	28.90	2.05	43.95	31.26	2.07	46.59	31.13	2.09	49.23	33.17	2.12
	50	34.41	26.51	2.06	38.34	26.67	2.09	40.94	29.01	2.12	43.56	31.38	2.13	46.17	31.26	2.16	48.78	33.30	2.18
	59	34.47	26.48	2.15	38.40	26.64	2.18	41.03	29.01	2.21	43.65	31.38	2.23	46.26	31.26	2.25	48.87	33.30	2.27
	67	35.70	26.61	2.52	39.78	26.77	2.56	42.48	29.14	2.58	45.18	31.54	2.61	47.91	31.41	2.63	50.61	33.46	2.66
	77	37.17	27.77	3.00	41.43	27.93	3.04	44.25	30.41	3.08	47.07	32.89	3.10	49.89	32.77	3.14	52.71	34.90	3.17
	87	38.31	27.93	4.19	42.69	28.08	4.26	45.59	30.58	4.30	48.51	33.08	4.34	51.42	32.95	4.38	54.33	35.12	4.43
	95	37.92	28.05	4.59	42.24	28.21	4.66	45.12	30.74	4.71	48.00	33.24	4.75	50.88	33.11	4.80	53.76	35.28	4.85
	104	34.86	26.48	4.71	38.82	26.64	4.78	41.46	29.01	4.83	44.10	31.38	4.88	46.77	31.26	4.93	49.41	33.30	4.98
	115	26.64	22.52	3.58	29.67	22.65	3.64	31.71	24.68	3.67	33.72	26.67	3.70	35.76	26.58	3.75	37.77	28.30	3.78

AFR	m^3/h	2,100

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	10.47	8.35	1.77	11.67	8.40	1.80	12.46	9.15	1.82	13.26	9.90	1.83	14.05	9.86	1.85	14.84	10.51	1.87
	-15.0	10.43	8.32	1.80	11.62	8.37	1.84	12.42	9.12	1.85	13.21	9.86	1.87	14.00	9.82	1.89	14.79	10.47	1.90
	-10.0	10.32	7.84	1.89	11.50	7.88	1.93	12.29	8.58	1.95	13.07	9.28	1.96	13.86	9.24	1.99	14.64	9.85	2.01
	0.0	10.27	7.72	1.95	11.44	7.76	1.99	12.22	8.45	2.01	13.00	9.13	2.03	13.78	9.10	2.05	14.55	9.70	2.06
	5.0	10.18	7.73	2.00	11.34	7.78	2.03	12.11	8.47	2.05	12.88	9.16	2.07	13.65	9.12	2.09	14.43	9.72	2.12
	10.0	10.08	7.77	2.06	11.24	7.82	2.09	12.00	8.50	2.12	12.77	9.20	2.13	13.53	9.16	2.16	14.30	9.76	2.18
	15.0	10.10	7.76	2.15	11.25	7.81	2.18	12.02	8.50	2.21	12.79	9.20	2.23	13.56	9.16	2.25	14.32	9.76	2.27
	19.4	10.46	7.80	2.52	11.66	7.84	2.56	12.45	8.54	2.58	13.24	9.24	2.61	14.04	9.21	2.63	14.83	9.81	2.66
	25.0	10.89	8.14	3.00	12.14	8.19	3.04	12.97	8.91	3.08	13.80	9.64	3.10	14.62	9.60	3.14	15.45	10.23	3.17
	30.0	11.23	8.19	4.19	12.51	8.23	4.26	13.36	8.96	4.30	14.22	9.70	4.34	15.07	9.66	4.38	15.92	10.29	4.43
	35.0	11.11	8.22	4.59	12.38	8.27	4.66	13.22	9.01	4.71	14.07	9.74	4.75	14.91	9.70	4.80	15.76	10.34	4.85
	40.0	10.22	7.76	4.71	11.38	7.81	4.78	12.15	8.50	4.83	12.92	9.20	4.88	13.71	9.16	4.93	14.48	9.76	4.98
	46.1	7.81	6.60	3.58	8.70	6.64	3.64	9.29	7.23	3.67	9.88	7.82	3.70	10.48	7.79	3.75	11.07	8.30	3.78

CASSETTE TYPE
AUU42-48RGLX

4-2. Heating capacity

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

■ Model: AUU42RGLX

AFR	CFM	1,177

		Indoor temperature									
	°FDB	60		65		70		72		75	
Outdoor temperature °FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
		kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
-5	-7	34.89	4.21	34.05	4.29	33.23	4.39	32.39	4.47	31.58	4.56
5	3	37.81	4.21	36.90	4.30	36.01	4.39	35.10	4.47	34.22	4.57
14	12	42.37	4.21	41.37	4.30	40.36	4.38	39.35	4.47	38.34	4.56
17	21	43.01	4.21	41.99	4.30	40.97	4.38	39.95	4.47	38.92	4.56
23	19	45.55	4.21	44.48	4.29	43.38	4.38	42.31	4.47	41.24	4.56
32	28	48.89	4.21	47.73	4.30	46.56	4.38	45.40	4.47	44.23	4.56
41	37	52.04	4.21	50.81	4.30	49.55	4.38	48.32	4.47	47.10	4.56
47	43	53.55	4.21	52.29	4.30	51.00	4.39	49.74	4.47	48.45	4.56
50	47	54.84	4.20	53.52	4.28	52.23	4.37	50.91	4.46	49.61	4.55
59	50	55.91	4.17	54.59	4.26	53.24	4.35	51.91	4.43	50.59	4.50

AFR	m^3/h	2,000

		Indoor temperature									
	°CDB	15.6		18.3		21.1		22.2		23.9	
Outdoor temperature °CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
		kW		kW		kW		kW		kW	
-20.6	-21.7	10.23	4.21	9.98	4.29	9.74	4.39	9.49	4.47	9.26	4.56
-15.0	-16.1	11.08	4.21	10.81	4.30	10.56	4.39	10.29	4.47	10.03	4.57
-10.0	-11.1	12.42	4.21	12.12	4.30	11.83	4.38	11.53	4.47	11.24	4.56
-8.3	-6.1	12.61	4.21	12.31	4.30	12.01	4.38	11.71	4.47	11.41	4.56
-5.0	-7.2	13.35	4.21	13.04	4.29	12.71	4.38	12.40	4.47	12.09	4.56
0.0	-2.2	14.33	4.21	13.99	4.30	13.65	4.38	13.30	4.47	12.96	4.56
5.0	2.8	15.25	4.21	14.89	4.30	14.52	4.38	14.16	4.47	13.80	4.56
8.3	6.1	15.69	4.21	15.33	4.30	14.95	4.39	14.58	4.47	14.20	4.56
10.0	8.3	16.07	4.20	15.69	4.28	15.31	4.37	14.92	4.46	14.54	4.55
15.0	10.0	16.39	4.17	16.00	4.26	15.60	4.35	15.21	4.43	14.83	4.50

■ Model: AUU48RGLX

AFR	CFM	1,236

		Indoor temperature									
	°FDB	60		65		70		72		75	
Outdoor temperature °FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
		kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
-5	-7	35.09	4.47	34.25	4.57	33.42	4.66	32.58	4.75	31.75	4.85
5	3	37.89	4.47	36.97	4.57	36.09	4.66	35.17	4.75	34.28	4.85
14	12	42.84	4.48	41.83	4.57	40.82	4.66	39.78	4.76	38.78	4.85
17	21	44.70	4.48	43.64	4.57	42.58	4.66	41.49	4.76	40.43	4.85
23	19	48.22	4.47	47.06	4.57	45.89	4.66	44.76	4.75	43.60	4.85
32	28	51.85	4.48	50.63	4.57	49.41	4.66	48.16	4.76	46.93	4.85
41	37	55.98	4.49	54.63	4.57	53.29	4.67	51.98	4.77	50.63	4.86
47	43	57.75	4.49	56.38	4.58	55.00	4.67	53.63	4.77	52.25	4.86
50	47	59.22	4.47	57.81	4.56	56.41	4.65	54.97	4.75	53.56	4.85
59	50	60.62	4.43	59.16	4.53	57.72	4.61	56.28	4.71	54.85	4.78

AFR	m^3/h	2,100

		Indoor temperature									
	°CDB	15.6		18.3		21.1		22.2		23.9	
Outdoor temperature °CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
		kW		kW		kW		kW		kW	
-20.6	-21.7	10.29	4.47	10.04	4.57	9.80	4.66	9.55	4.75	9.31	4.85
-15.0	-16.1	11.10	4.47	10.84	4.57	10.58	4.66	10.31	4.75	10.05	4.85
-10.0	-11.1	12.56	4.48	12.26	4.57	11.96	4.66	11.66	4.76	11.36	4.85
-8.3	-6.1	13.10	4.48	12.79	4.57	12.48	4.66	12.16	4.76	11.85	4.85
-5.0	-7.2	14.13	4.47	13.79	4.57	13.45	4.66	13.12	4.75	12.78	4.85
0.0	-2.2	15.20	4.48	14.84	4.57	14.48	4.66	14.11	4.76	13.76	4.85
5.0	2.8	16.41	4.49	16.01	4.57	15.62	4.67	15.23	4.77	14.84	4.86
8.3	6.1	16.93	4.49	16.52	4.58	16.12	4.67	15.72	4.77	15.31	4.86
10.0	8.3	17.36	4.47	16.94	4.56	16.53	4.65	16.11	4.75	15.70	4.85
15.0	10.0	17.77	4.43	17.34	4.53	16.92	4.61	16.50	4.71	16.07	4.78

CASSETTE TYPE
AUU42-48RGLX

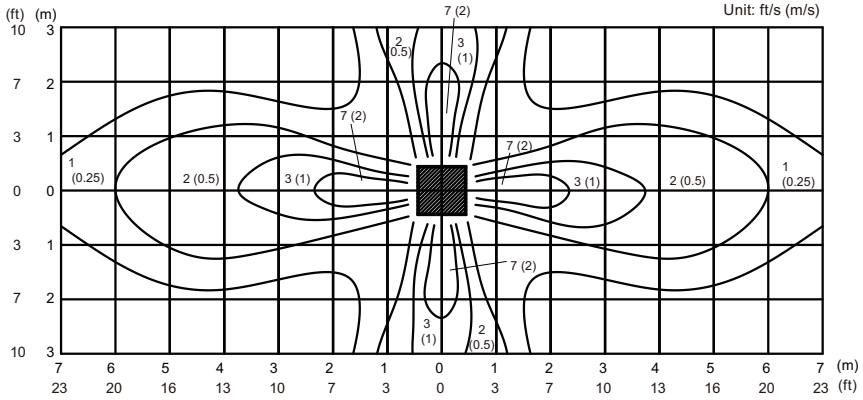
5. Fan performance

5-1. Air velocity distributions

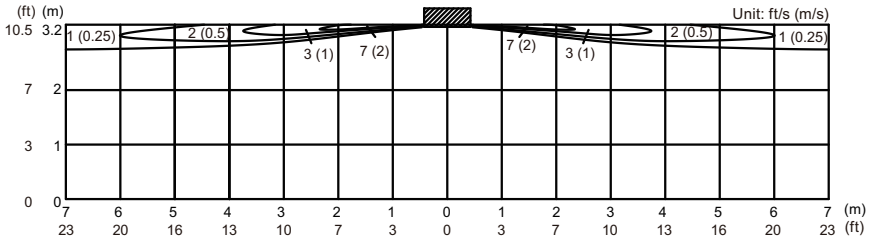
■ Model: AUU42RGLX (4-way air outlet)

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

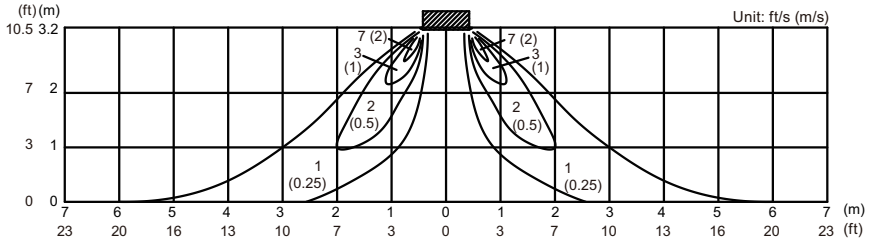
Top view
Horizontal louver: position 1



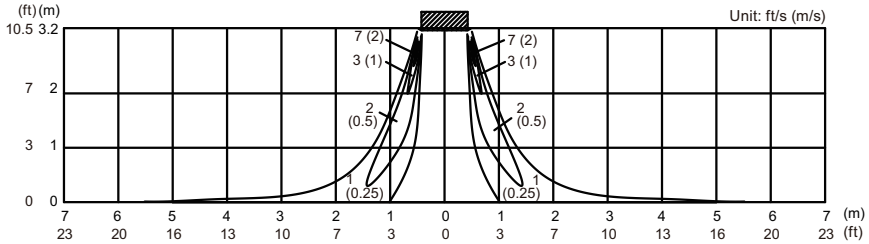
Side view
Horizontal louver: position 1



Side view
Horizontal louver: position 2



Side view
Horizontal louver: position 4

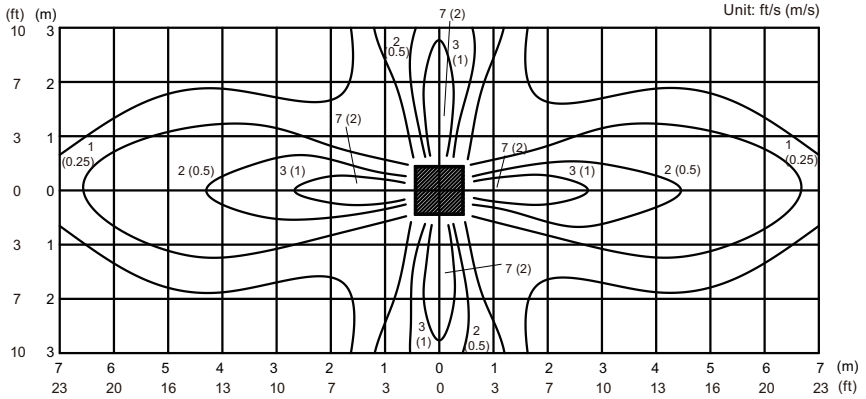


CASSETTE TYPE
AUU42-48RGLX

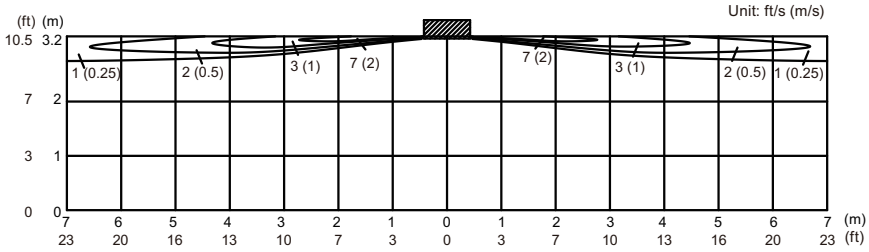
■ Model: AUU48RGLX (4-way air outlet)

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

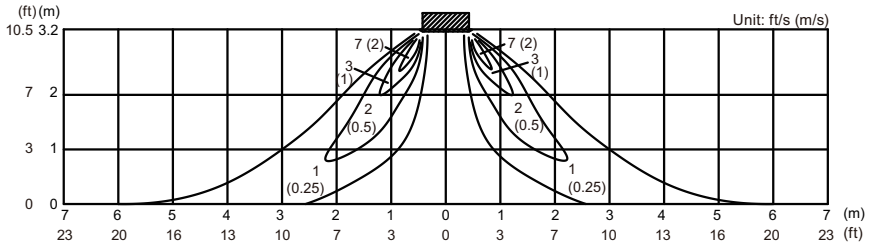
Top view
Horizontal louver: position 1



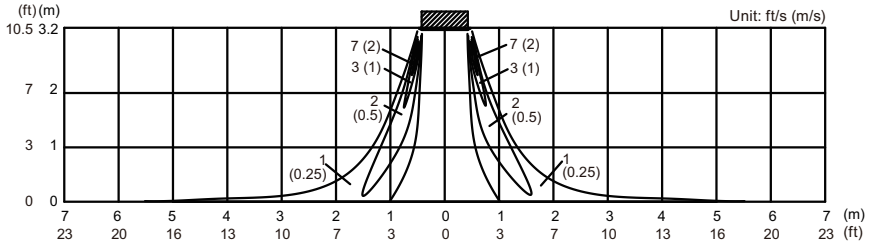
Side view
Horizontal louver: position 1



Side view
Horizontal louver: position 2



Side view
Horizontal louver: position 4

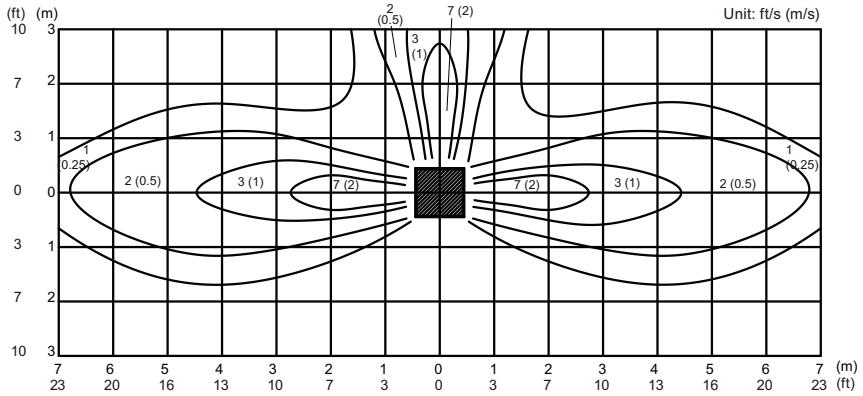


CASSETTE TYPE
AUU42-48RGLX

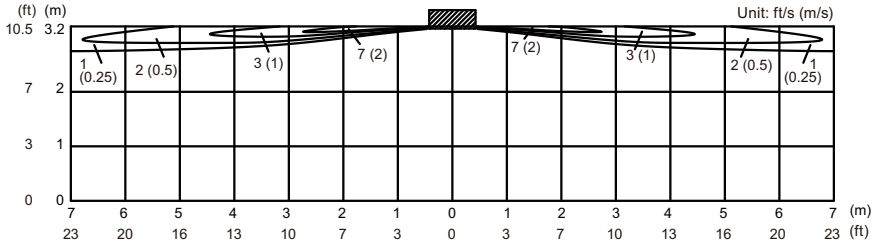
■ Model: AUU42RGLX (3-way air outlet)

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

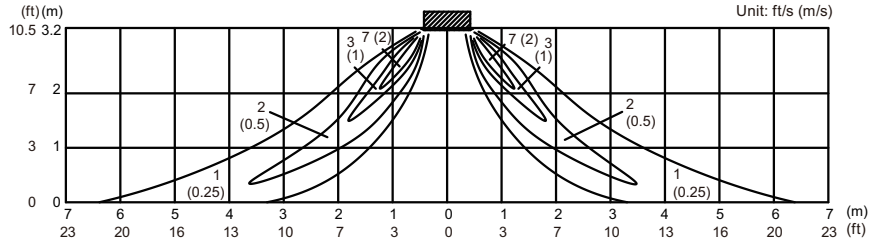
Top view
Horizontal louver: position 1



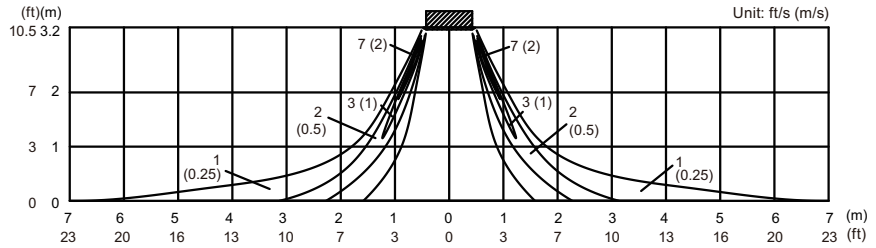
Side view
Horizontal louver: position 1



Side view
Horizontal louver: position 2



Side view
Horizontal louver: position 4

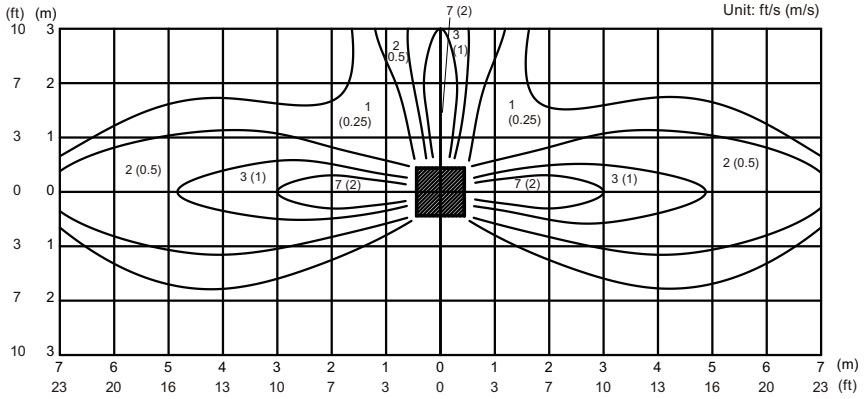


CASSETTE TYPE
AUU42-48RGLX

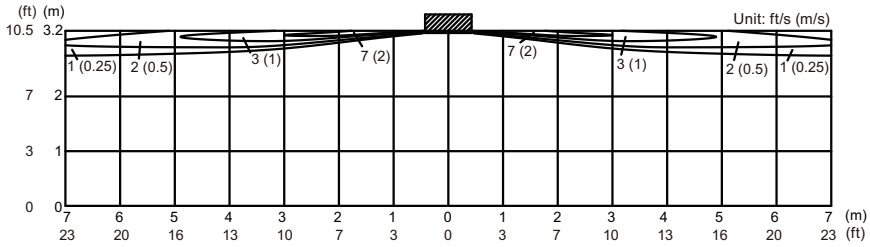
■ Model: AUU48RGLX (3-way air outlet)

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

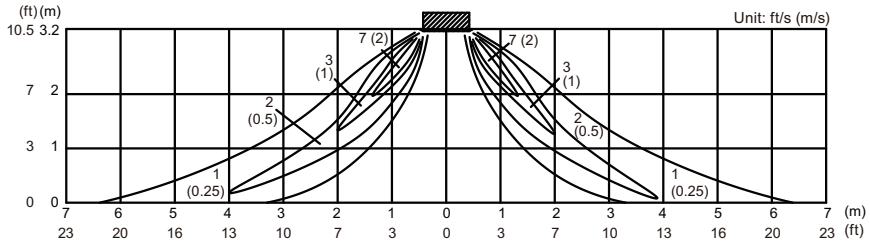
Top view
Horizontal louver: position 1



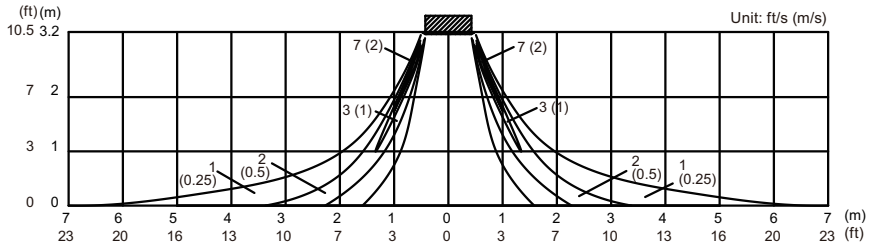
Side view
Horizontal louver: position 1



Side view
Horizontal louver: position 2



Side view
Horizontal louver: position 4



CASSETTE TYPE
AUU42-48RGLX

5-2. Airflow

■ Model: AUU42RGLX (4-way outlet)

● Cooling/Heating

Fan speed	Airflow	
HIGH	m^3/h	2,000
	l/s	556
	CFM	1,177
MED	m^3/h	1,650
	l/s	458
	CFM	971
LOW	m^3/h	1,460
	l/s	406
	CFM	859
QUIET	m^3/h	1,300
	l/s	361
	CFM	765

■ Model: AUU48RGLX (4-way outlet)

● Cooling/Heating

Fan speed	Airflow	
HIGH	m^3/h	2,100
	l/s	583
	CFM	1,236
MED	m^3/h	1,780
	l/s	494
	CFM	1,048
LOW	m^3/h	1,600
	l/s	444
	CFM	942
QUIET	m^3/h	1,320
	l/s	367
	CFM	777

CASSETTE TYPE
AUU42-48RGLX

■ Model: AUU42RGLX (3-way outlet)

● Cooling/Heating

Fan speed	Airflow	
HIGH	m^3/h	1,740
	l/s	483
	CFM	1,024
MED	m^3/h	1,440
	l/s	400
	CFM	848
LOW	m^3/h	1,270
	l/s	353
	CFM	748
QUIET	m^3/h	1,130
	l/s	314
	CFM	665

■ Model: AUU48RGLX (3-way outlet)

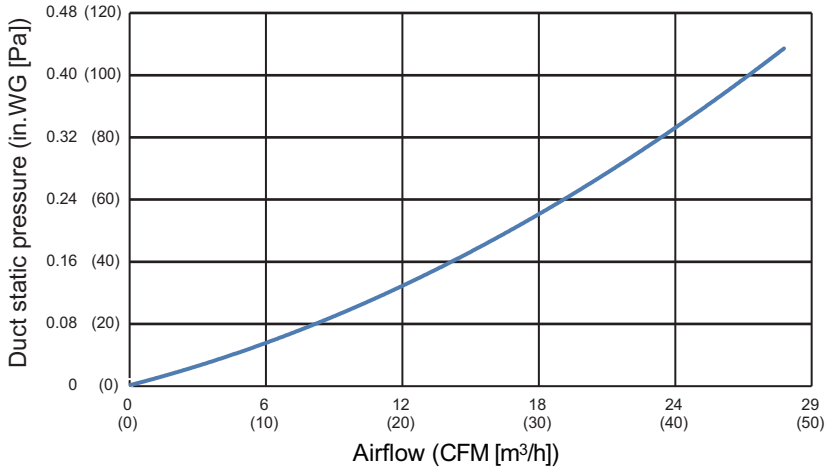
● Cooling/Heating

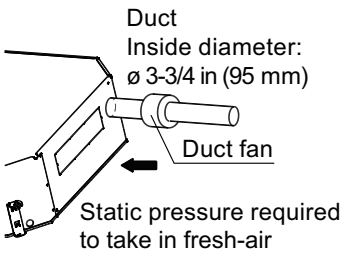
Fan speed	Airflow	
HIGH	m^3/h	1,830
	l/s	508
	CFM	1,077
MED	m^3/h	1,550
	l/s	431
	CFM	912
LOW	m^3/h	1,390
	l/s	386
	CFM	818
QUIET	m^3/h	1,150
	l/s	319
	CFM	677

CASSETTE TYPE
AUU42-48RGLX

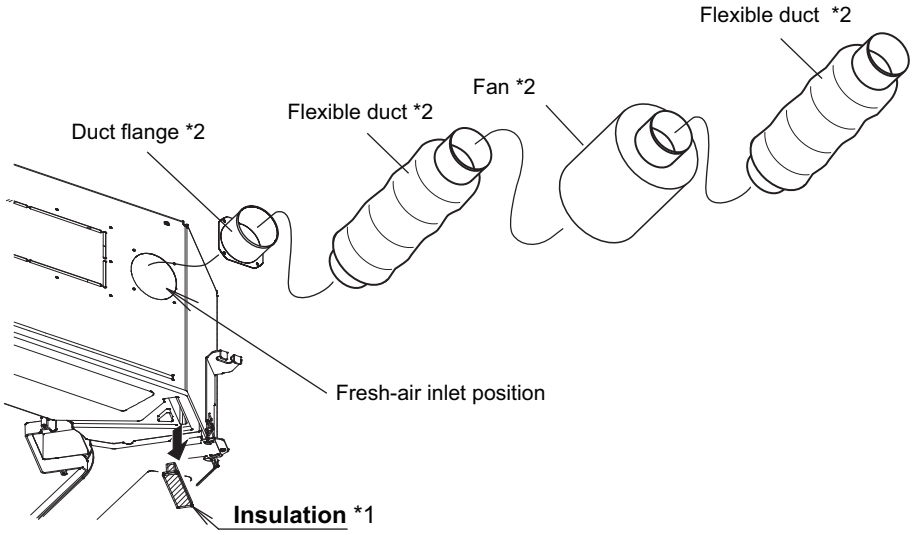
5-3. Fresh air characteristics

■ Models: AUU42RGLX and AUU48RGLX





● Installation



*1: In case of fresh-air intake, remove the insulation.

*2: Locally-purchased parts

For the fresh-air inlet position, refer to "Dimensions" on page 4.

CASSETTE TYPE
AUU42-48RGLX

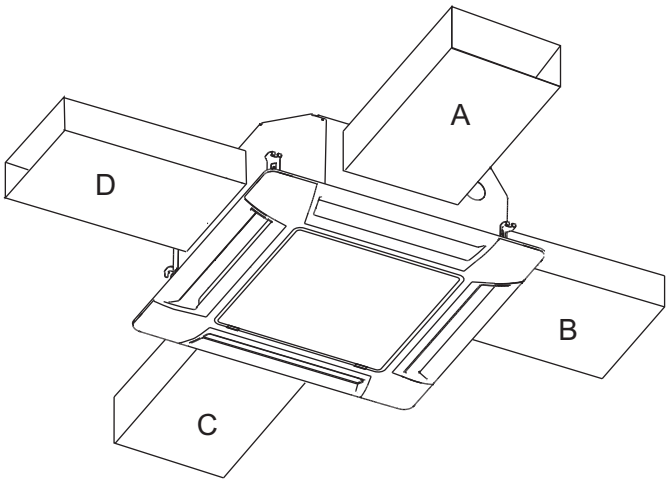
■ Air-outlet duct connection

● Precautions

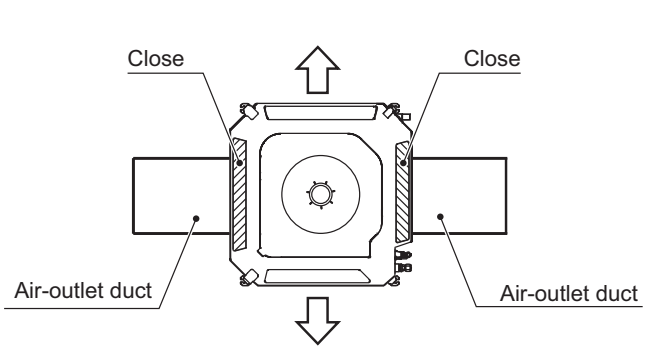
- Connect the air-outlet duct to maximum 2 directions among the 4-duct connecting directions.

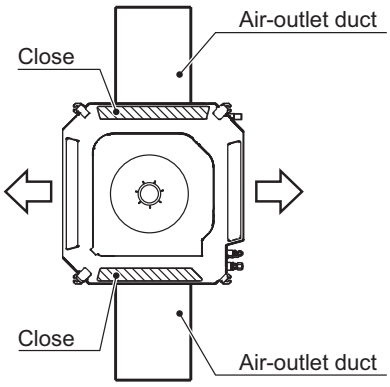
⚠ CAUTION

Do not connect ducts at 3 or more directions.

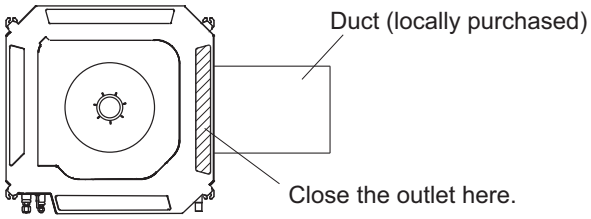


- When installing air-outlet duct in 2 directions, connect the ducts in a straight line.

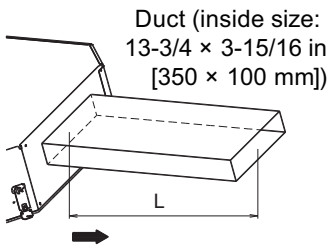




- Once the ducted direction is decided, be sure to close the outlet in the direction.
  Use optional Air Outlet Shutter Plate (UTR-YDZK) to close the outlet.

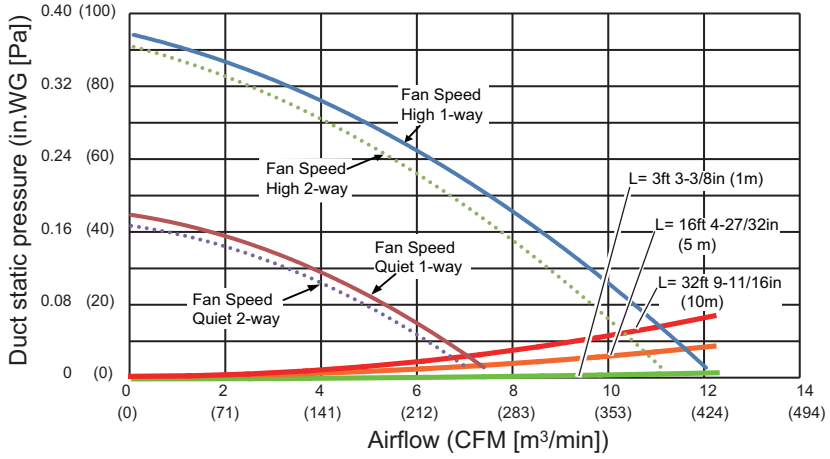


- The inside size of the duct is as follows:

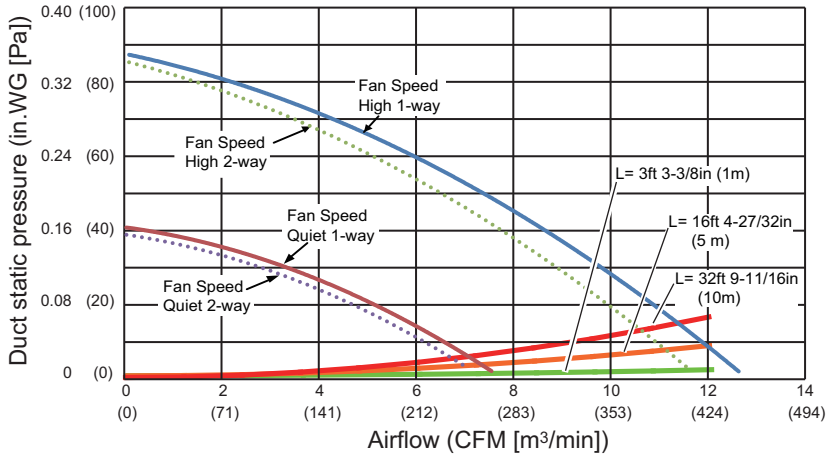


CASSETTE TYPE
AUU42-48RGLX

● Model: AUU42RGLX



● Model: AUU48RGLX



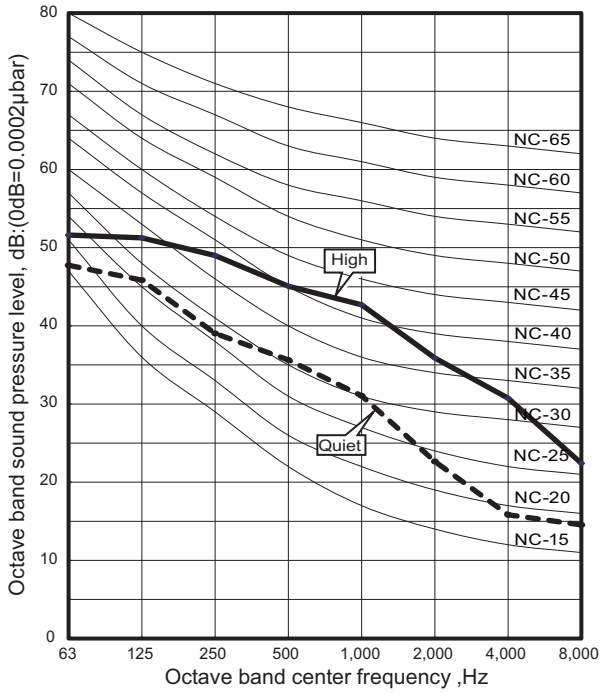
CASSETTE TYPE
AUU42-48RGLX

6. Operation noise (sound pressure)

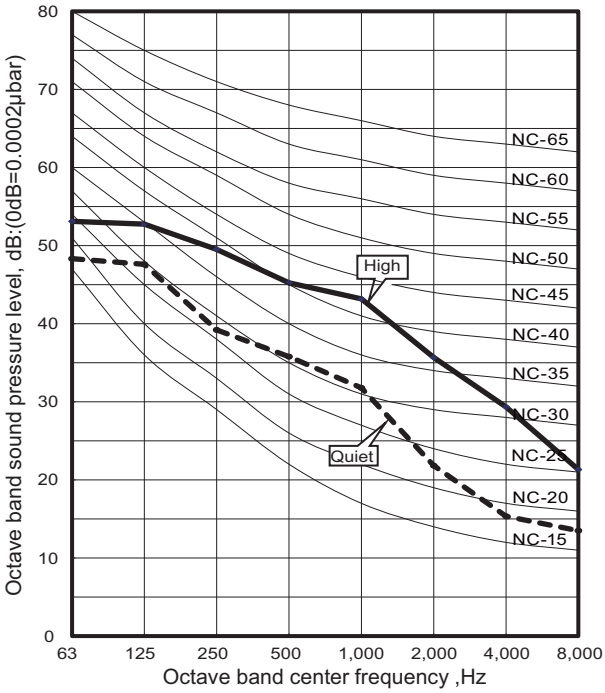
6-1. Noise level curve

■ Model: AUU42RGLX

● Cooling

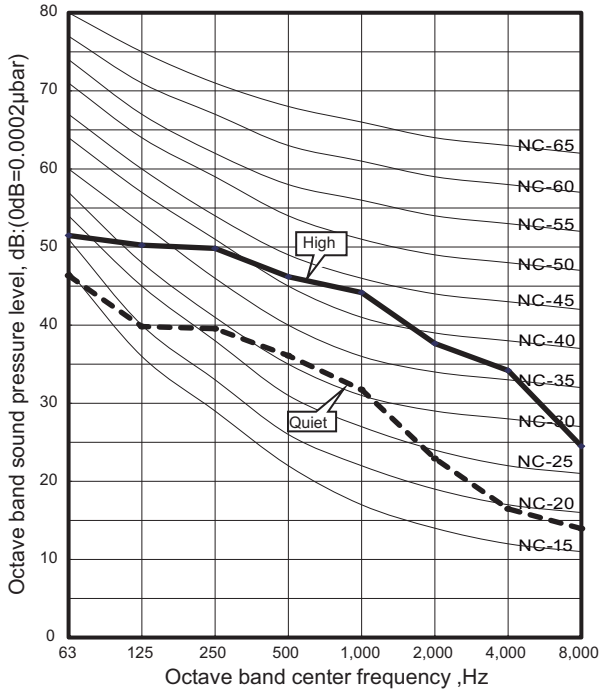


● Heating

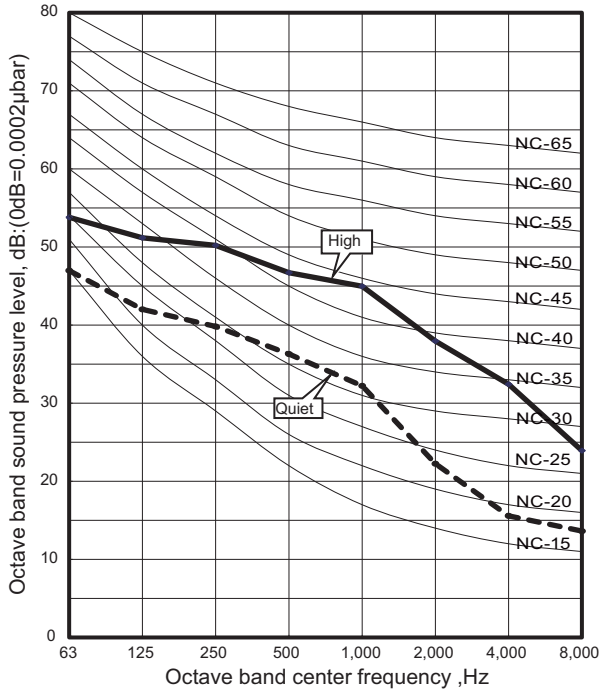


■ Model: AUU48RGLX

● Cooling

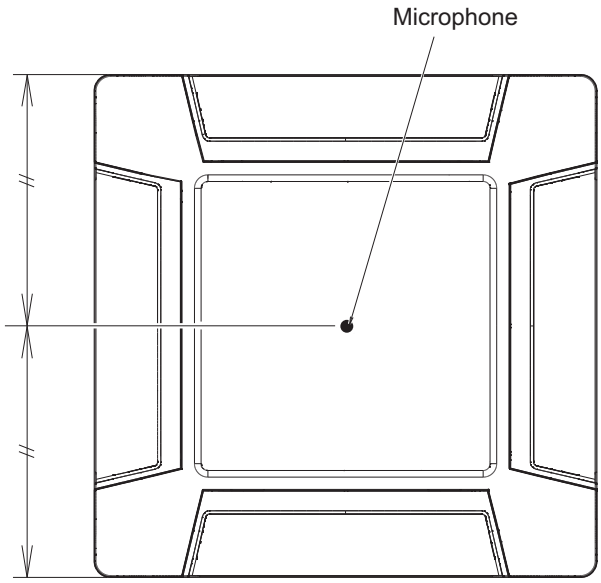


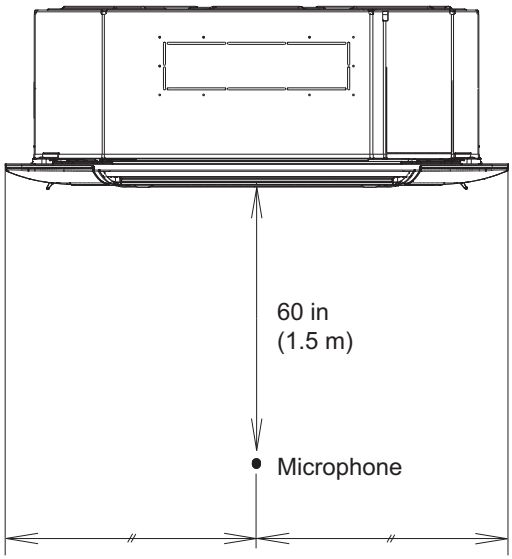
● Heating



CASSETTE TYPE
AUU42-48RGLX

6-2. Sound level check point





NOTE: Detailed shape of the actual indoor unit might be slightly different from the one illustrated above.

CASSETTE TYPE
AUU42-48RGLX

7. Safety devices

Type of protection	Protection form		Model
			AUU42RGLX AUU48RGLX
Circuit protection	Current fuse (PCB*)		250 V, 3.15 A
Fan motor protection	Thermal protection program	Activate	257 ±18°F (125 ±10°C) Fan motor stop
		Reset	248 ±18°F (120 ±10°C) Fan motor restart

*PCB: Printed Circuit Board

CASSETTE TYPE
AUU42-48RGLX

8. External input and output

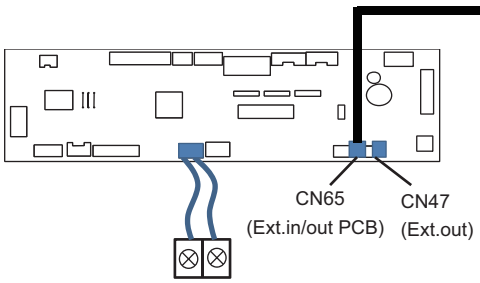


Fig. Indoor unit PCB

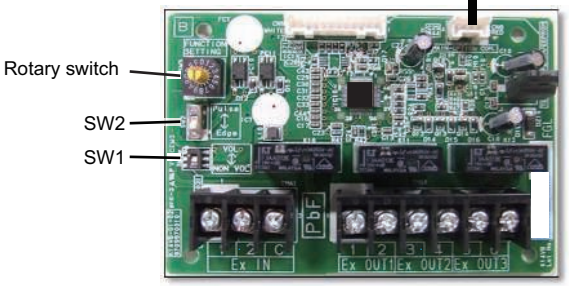


Fig. External input and output PCB

PCB	External input	External output	Connector	Input select	Input signal	External connect kit (Optional parts)
Indoor unit	Operation/Stop	-	Terminal	Dry contact	Edge	-
	-	Operation status	CN47	-	-	UTY-XWZXZG
		Error status				
		Indoor unit fan operation status				
		External heater output				
External input and output (UTY-XCSX)	Operation/Stop	-	Input 1/ Input 2	Dry contact/ Apply voltage	Edge/ Pulse	-
	Forced thermostat off		Input 1		Edge	
	-	Operation status	Output 1 Output 2 Output 3	-	-	-
		Error status				
		Indoor unit fan operation status				
		External heater output				

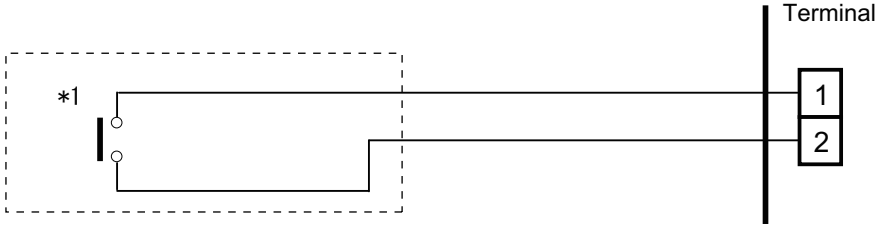
CASSETTE TYPE
AUU42-48RGLX

8-1. External input

- “Operation/Stop” mode or "Forced stop" mode can be selected with function setting of indoor unit.
- A twisted pair cable (22AWG) should be used. Maximum length of cable is 492 ft (150 m).
- The wire connection should be separate from the power cable line.

■ Indoor unit

Indoor unit functions such as Operation/Stop can be done by using indoor unit terminals.



*1: The switch can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

■ External input and output PCB

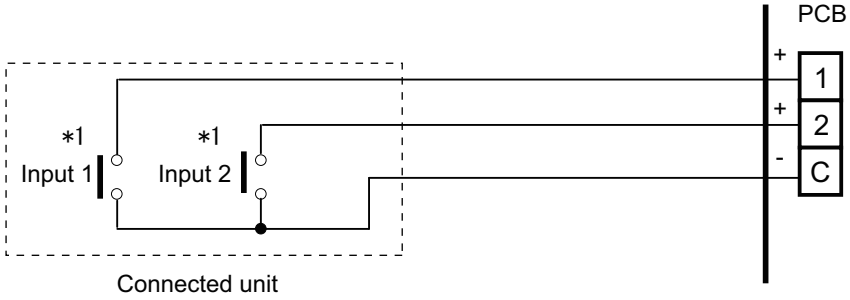
The indoor unit Operation/Stop can be set by using the input terminal on the PCB.

● Input select

Use either one of these types of terminals according to the application. (Both types of terminals cannot be used simultaneously.)

- Dry contact

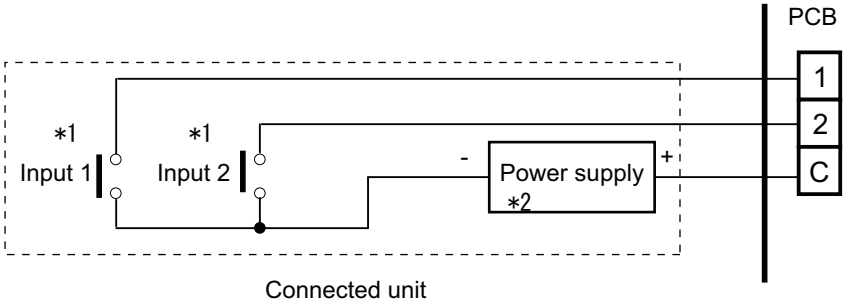
In case of internal power supply, set the slide switch of SW1 to "NON VOL" side.



*1: The switches can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

- Apply voltage

In case of external power supply, set the slide switch of SW1 to "VOL" side.



*1: The switches can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

*2: Make the power supply DC 12 V to 24 V 10 mA or more.

8-2. External output

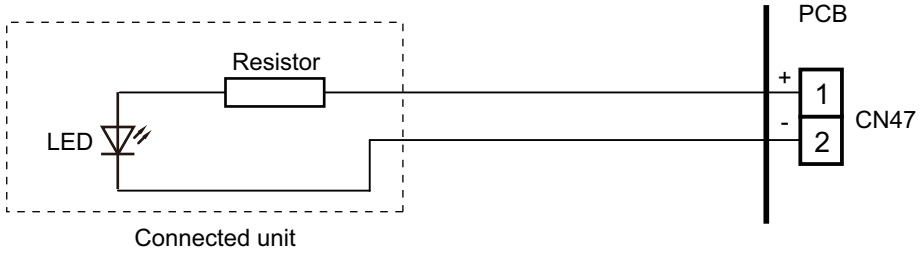
Use an external output cable with appropriate external dimension, depending on the number of cables to be installed.

■ Indoor unit

- A twisted pair cable (22AWG) should be used. Maximum length of cable is 82 ft (25 m).
- Output voltage: High DC 12 V ± 2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to Chapter 8-3. "Combination of external input and output" on page 26.

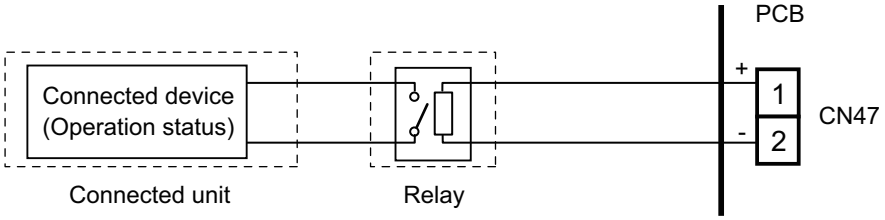
● When indicator, etc. are connected directly

Example: Function setting 60 is set to "00"



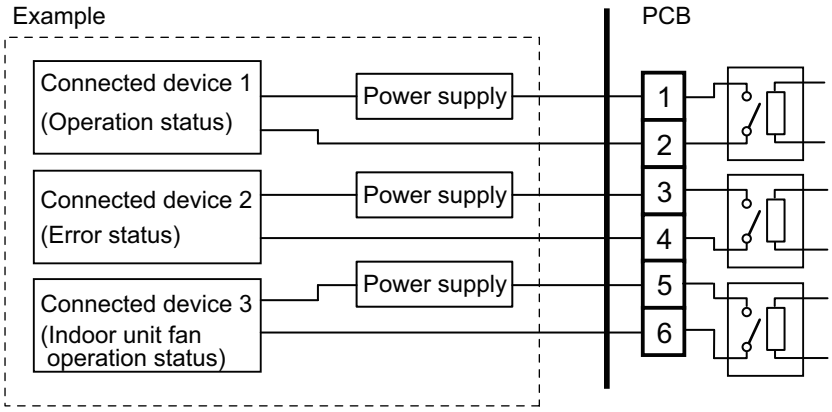
● When connecting with a device equipped with a power supply

Example: Function setting 60 is set to "00"



■ External input and output PCB

- A twisted pair cable (22AWG) should be used.
- Permissible voltage and current: DC 5 V to 30 V / 3 A, AC 30 V to 250 V / 3 A
- For details, refer to Chapter 8-3. "Combination of external input and output" on page 26.



CASSETTE TYPE
AUU42-48RGLX

8-3. Combination of external input and output

By combining the function setting of the indoor unit and rotary switch setting of the External input and output PCB, you can select various combinations of functions.

Combination examples of external input and output are as follows:

Mode	Function setting	External input and output PCB (Rotary SW)	External input			
			Indoor unit Input	External input and output PCB		
			Terminal	Input 1	Input 2	Signal type
0-1	60-00	1	Operation/Stop (Function setting 46-00) or Forced stop (Function setting 46-02)	Operation/Stop	Not available	Edge
				Operation	Stop	Pulse
0-2	60-00	2		Forced Thermostat OFF	Not available	Edge
1	60-01	3		Mechanical cooling Off		
2	60-02	4		Forced thermostat Off		
3	60-03	5		Mechanical cooling On		
4	60-04	6		Mechanical cooling On		
5	60-05	7		Forced thermostat Off		
6	60-06	8		Forced thermostat Off		
7	60-07	9		Mechanical cooling Off		
8	60-08	A		Forced thermostat Off		
9	60-09	B		Forced Thermostat OFF		
10	60-10	C		Forced Thermostat OFF		
11	60-11	D		Forced Thermostat OFF		
12	60-12	D		Forced Thermostat OFF		

CASSETTE TYPE
AUU42-48RGLX

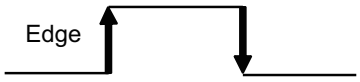
Mode	Function setting	External input and output PCB (Rotary SW)	External output			
			Indoor unit Output	External input and output PCB		
			CN47	Output 1	Output 2	Output 3
0-1	60-00	1	Operation/Stop	Operation/Stop	Error status	Indoor unit fan operation status
0-2	60-00	2	Operation/Stop	Error status	Indoor unit fan operation status	External heater output
1	60-01	3	Cooling thermostat On	Error status	Indoor unit fan operation status	External heater output
2	60-02	4	Cooling thermostat On	Error status	Remote controller output	External heater output
3	60-03	5	Cooling thermostat On	Cooling high/low output	Remote controller output	External heater output
4	60-04	6	Cooling thermostat On	Error status	Remote controller output	Cooling high/low output
5	60-05	7	Heating thermostat On	Error status	Indoor unit fan operation status	External heater output
6	60-06	8	Operation/Stop	Error status	Indoor unit fan operation status	Heating thermostat On
7	60-07	9	Cooling thermostat On	Error status	Heating thermostat On	External heater output
8	60-08	A	Cooling thermostat On	Heating thermostat On	Remote controller output	External heater output
9	60-09	B	Error status	Operation/Stop	Indoor unit fan operation status	External heater output
10	60-10	C	Indoor unit fan operation status	Operation/Stop	Error status	External heater output
11	60-11	D	External heater output	Operation/Stop	Indoor unit fan operation status	Error status
12	60-12	D	Setpoint Attainment status	Operation/Stop	Indoor unit fan operation status	Error status

NOTE: Input of Operation/Stop depends on the setting of function setting 46.
00: Operation/Stop mode 1 (Remote controller enabled)
01: (Setting prohibited)
02: Forced stop
03: Operation/Stop mode 2 (Remote controller disabled)

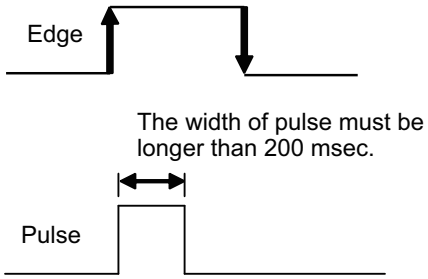
CASSETTE TYPE
AUU42-48RGLX

■ Input signal type

- Indoor unit
  Input signal type is only "Edge".



- External input and output PCB
  The input signal type can be selected.
  Signal type (edge or pulse) can be switched by the DIP switch 2 (SW2) on the External input and output PCB.



CASSETTE TYPE
AUU42-48RGLX

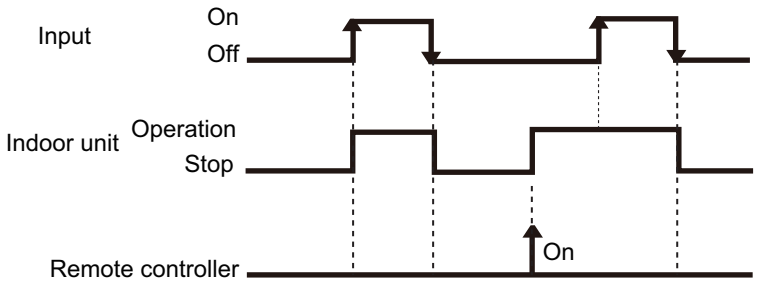
8-4. Details of function

■ Control input function

● When function setting is "Operation/Stop" mode 1

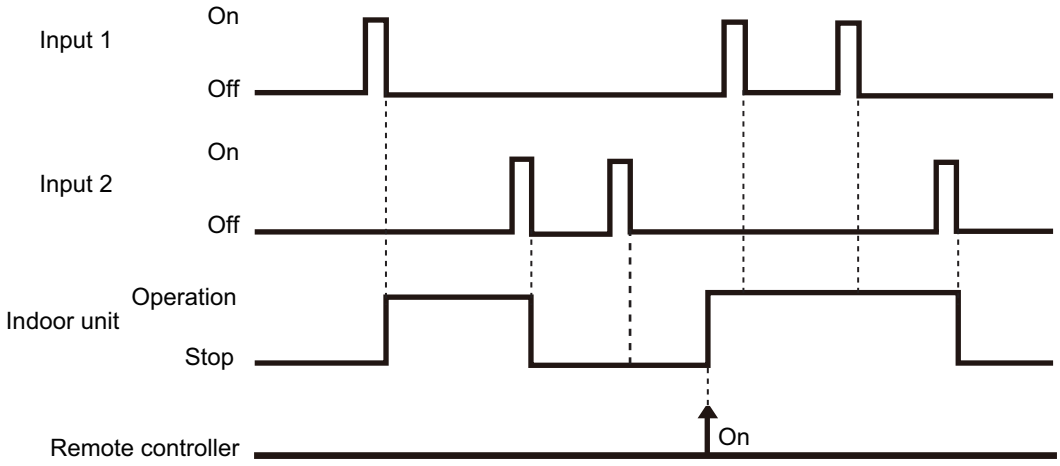
- In the case of "Edge" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-00	-	Input of indoor unit	Terminal	Off → On	Operation
				On → Off	Stop
	60-00 / 1	External input and output PCB	Input 1	Off → On	Operation
				On → Off	Stop



- In the case of "Pulse" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-00	60-00 / 1	External input and output PCB	Input 1	Pulse	Operation
			Input 2	Pulse	Stop



NOTES:

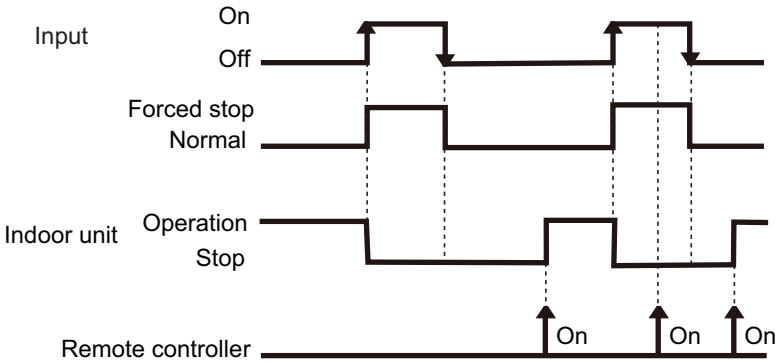
- The last command has priority.
- The indoor units within the same remote controller group operates in the same mode.

CASSETTE TYPE
AUU42-48RGLX

● When function setting is "Forced stop" mode

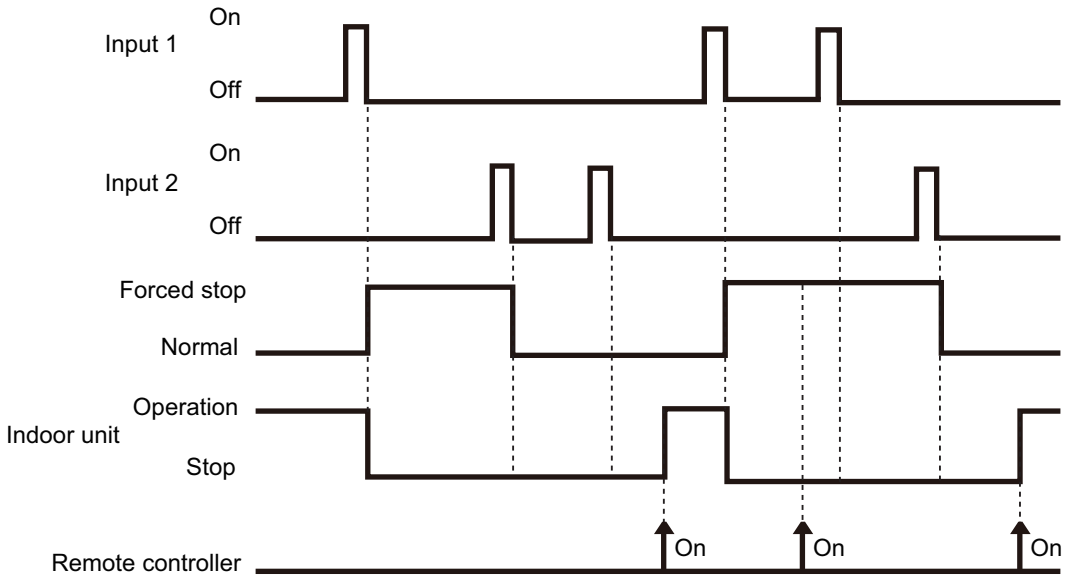
- In the case of "Edge" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-02	-	Input of indoor unit	Terminal	Off → On	Forced stop
				On → Off	Normal
	60-00 / 1	External input and output PCB	Input 1	Off → On	Forced stop
				On → Off	Normal



- In the case of "Pulse" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-02	60-00 / 1	External input and output PCB	Input 1	Pulse	Forced stop
			Input 2	Pulse	Normal



NOTES:

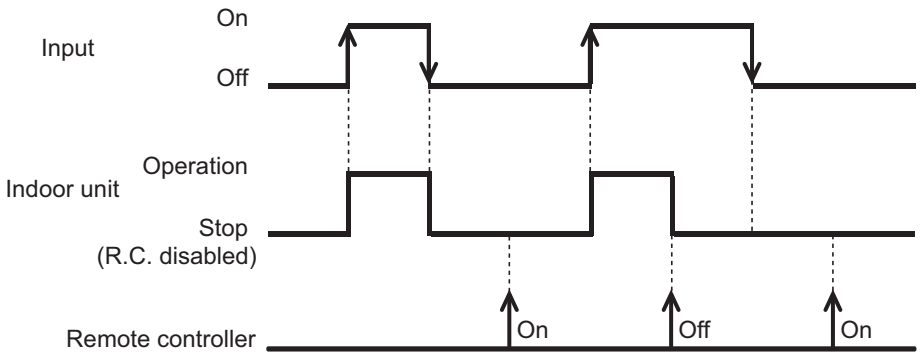
- When the forced stop is triggered, indoor unit stops and Operation/Stop operation by the remote controller is restricted.
- When forced stop function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

CASSETTE TYPE
AUU42-48RGLX

● When function setting is "Operation/Stop" mode 2

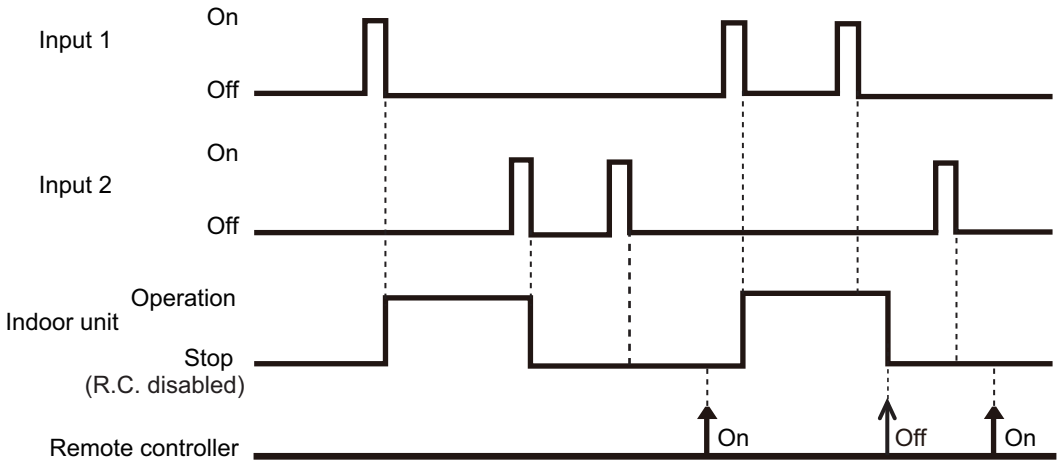
- In the case of "Edge" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-03	-	Input of indoor unit	Terminal	Off → On	Operation
				On → Off	Stop (Remote controller disabled)
	60-00 / 1	External input and output PCB	Input 1	Off → On	Operation
				On → Off	Stop (Remote controller disabled)



- In the case of "Pulse" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-03	60-00 / 1	External input and output PCB	Input 1	Pulse	Operation
			Input 2	Pulse	Stop (Remote controller disabled)



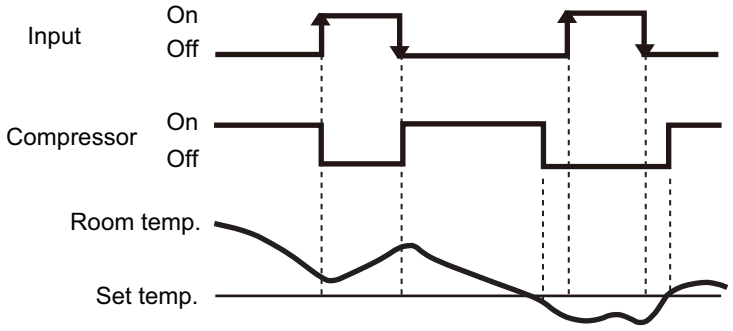
NOTES:

- When "Operation/Stop" mode 2 function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

CASSETTE TYPE
AUU42-48RGLX

■ Forced thermostat off function

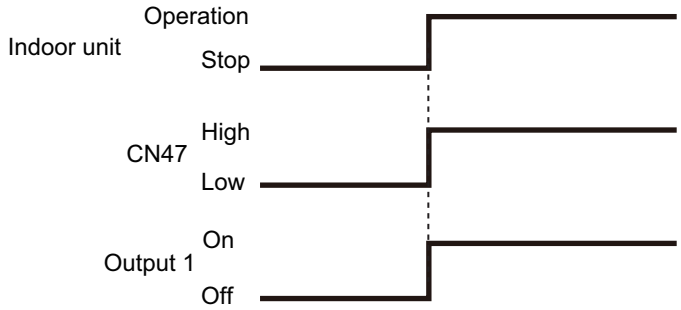
Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
	60-00 / 2 60-02 / 4 60-05 / 7 60-06 / 8 60-08 / A 60-09 / B 60-10 / C 60-11 / D	External input and output PCB	Input 1	Off → On	Thermostat off
				On → Off	Normal operation



■ Control output function

Function setting /	Rotary SW of External input and output PCB	External output		Output signal	Command
	60-00 / 1, 2 60-06 / 8	Output of indoor unit	CN47	Low → High	Operation
				High → Low	Stop
	60-00 / 1 60-09 / B 60-10 / C 60-11 / D	External input and output PCB	Output 1	Off → On	Operation
				On → Off	Stop

The output is low when the unit is stopped.

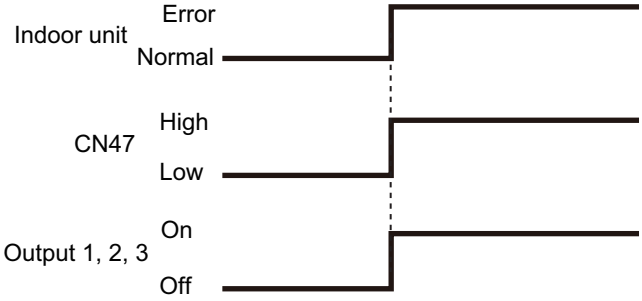


CASSETTE TYPE
AUU42-48RGLX

■ Error status

Function setting / Rotary SW of External input and output PCB	External output		Output signal	Command
60-09 / B	Output of indoor unit	CN47	Low → High	Error
			High → Low	Normal
60-00 / 2 60-01 / 3 60-02 / 4 60-04 / 6 60-05 / 7 60-06 / 8 60-07 / 9	External input and output PCB	Output 1	Off → On	Error
			On → Off	Normal
60-00 / 1 60-10 / C		Output 2	Off → On	Error
			On → Off	Normal
60-11 / D		Output 3	Off → On	Error
			On → Off	Normal

The output is ON when an error is generated for the indoor unit.

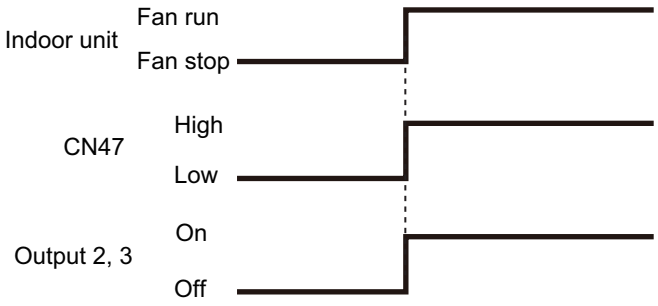


CASSETTE TYPE
AUU42-48RGLX

■ Indoor unit fan operation status

Function setting / Rotary SW of External input and output PCB	External output		Output signal	Command
60-10 / C	Output of indoor unit	CN47	Low → High	Fan run
			High → Low	Fan stop
60-00 / 2 60-01 / 3 60-05 / 7 60-06 / 8 60-09 / B 60-11 / D	External input and output PCB	Output 2	Off → On	Fan run
			On → Off	Fan stop
60-00 / 1		Output 3	Off → On	Fan run
			On → Off	Fan stop

Output signal	Condition
On Low → High	The indoor unit fan is operating.
Off High → Low	The fan is stopped or during cold air prevention. During thermostat off when in dry mode operation.



CASSETTE TYPE
AUU42-48RGLX

■ External heater output

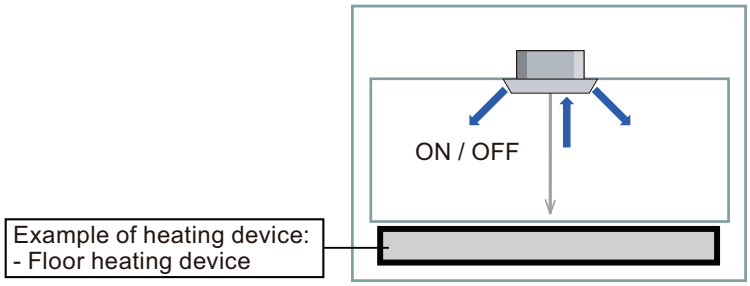
Control	Primary heater	Auxiliary heater	Function setting	
			Indoor unit	Wired R. C.
			Control switching external heaters No. 61	Sensor activation*2
Auxiliary heater control 1	Heat pump	External device*1	61-00	—
Auxiliary heater control 2	Heat pump	External device	61-01	—
Heat pump prohibition control	External device	None	61-02	On (Enabled)
Auxiliary heater control by outdoor temperature 1	Heat pump	External device	61-03	On (Enabled)
Auxiliary heater control by outdoor temperature 2	Heat Pump	External device	61-04	On (Enabled)

NOTES:

- After turning off the heater, 3 minutes of standby time is required by next power-on of the heater.
- For items marked "—" in the table, any of validate or invalidate of the setting are acceptable.
- *1: External device means Hot water, Electrical heater, etc.
- *2: Sensor activation:
  - Setting change from the factory setting is required.
  - Indoor unit fan setting will be on for safety reason without sensor activation of wired remote controller.

● Installation configuration of individual connection

External heating device is installed individually. (No use of indoor unit fan)



⚠ WARNING

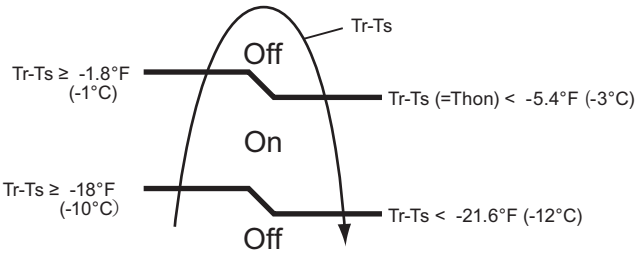
- Design and install external heater appropriately with considering its protection.
- Inappropriate designing and installation of external heater may cause a fire by emitted heat from the external heater.
- Fujitsu General Ltd. is not responsible for inappropriate designing or installation of external heating device.

CASSETTE TYPE
AUU42-48RGLX

● Auxiliary heater control 1

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection

- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.



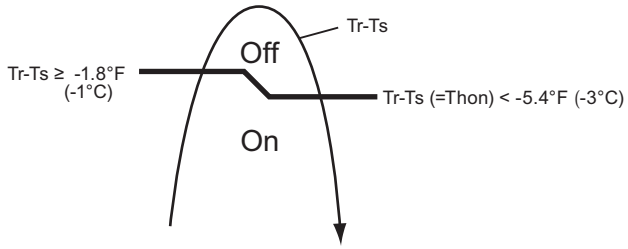
Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

Example: When set temperature (Ts) is 72°F (22°C) (Factory setting),
- and room temperature (Tr) increases above 53.6°F (12°C), signal output is on.
- and room temperature (Tr) increases above 69.8°F (21°C), signal output is off.
- and room temperature (Tr) decreases below 66.2°F (19°C), signal output is on.
- and room temperature (Tr) decreases below 50°F (10°C), signal output is off.

● Auxiliary heater control 2

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection

- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

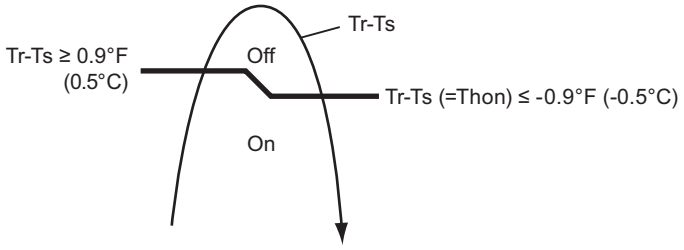
CASSETTE TYPE
AUU42-48RGLX

● Heat pump prohibition control

Perform heating by external heater only. Indoor unit is continuous thermostat off.

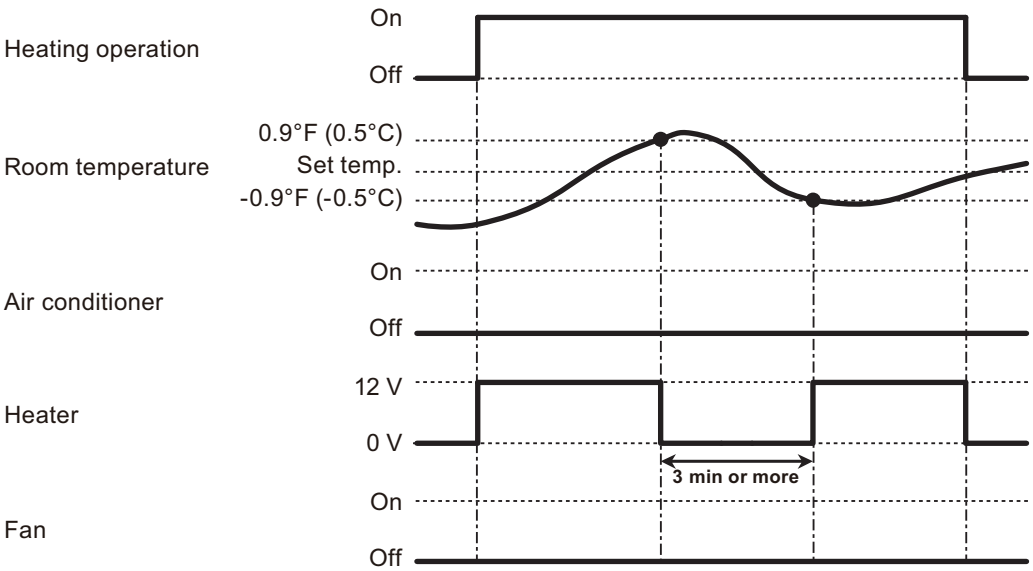
Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

- **Operation status**



NOTE: In following operations, compressor will be on.
- Other than heating
- Test run

CASSETTE TYPE
AUU42-48RGLX

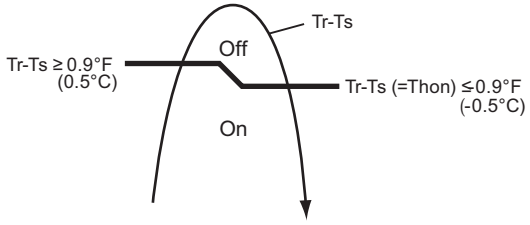
● Auxiliary heater control by outdoor temperature 1

This control selects heat pump or external heater according to the outdoor temperature. When outdoor temperature is high, the heating is performed by using heat pump only.

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Heat pump only zone

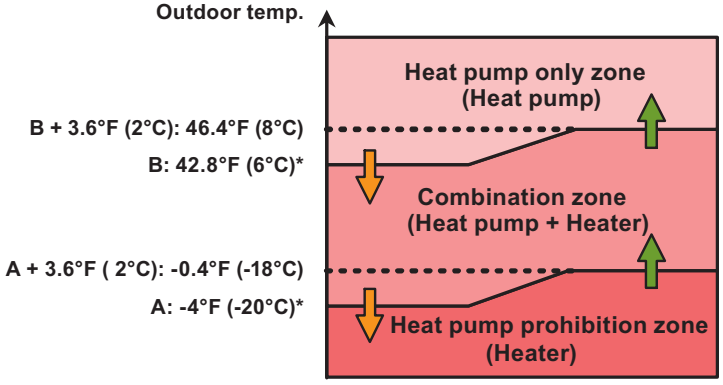
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary A and B: Adjustable individually by function setting number 66 and 67.

- **External heater output**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

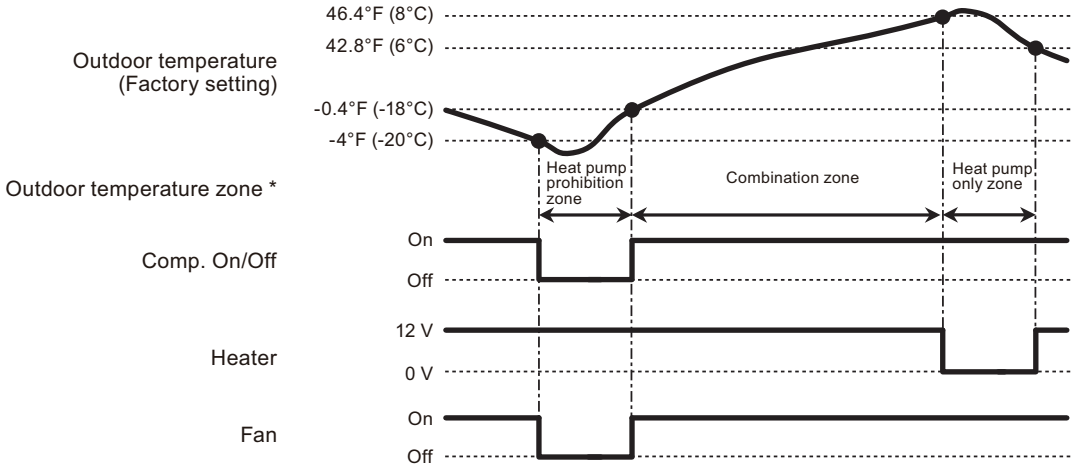
- **Outdoor temperature zone**



*: Adjustable by function setting 66 and 67

CASSETTE TYPE
AUU42-48RGLX

- **Operation status**



* The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

CASSETTE TYPE
AUU42-48RGLX

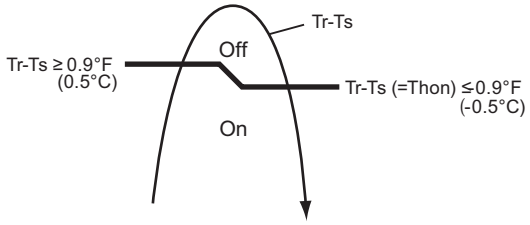
● Auxiliary heater control by outdoor temperature 2

This control selects heat pump or external heater according to the outdoor temperature. Even when outdoor temperature is high, the heating is performed by using both of heat pump and external heater.

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

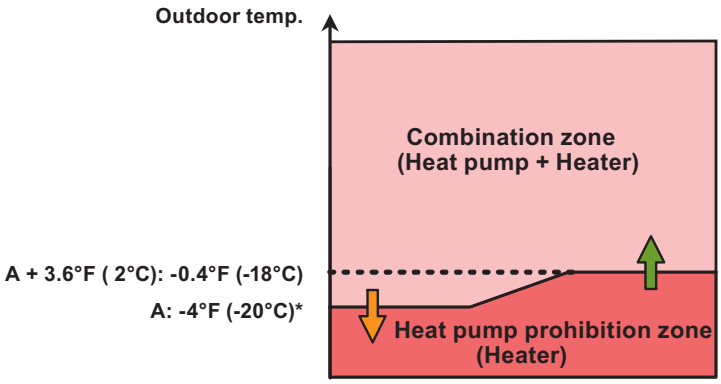
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary A: Adjustable by function setting number 66.

- **External heater output**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

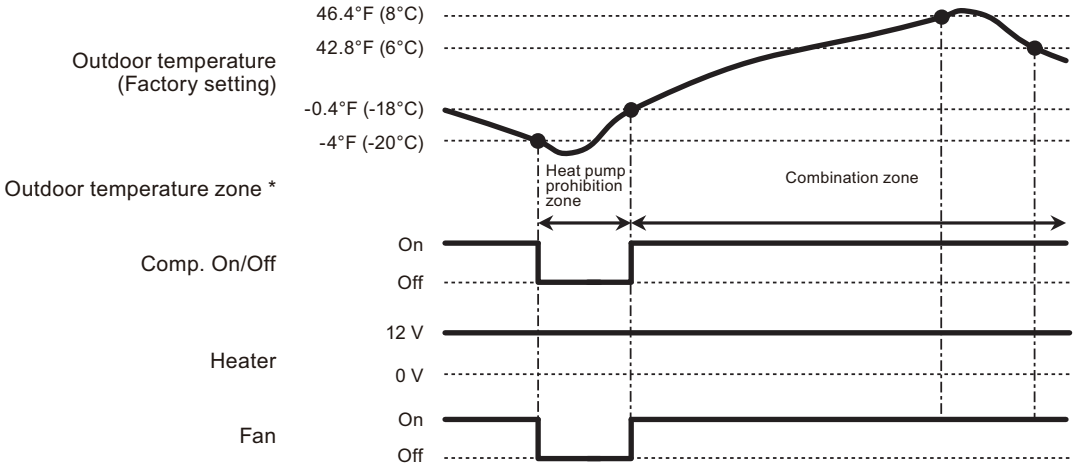
- **Outdoor temperature zone**



*: Adjustable by function setting 66

CASSETTE TYPE
AUU42-48RGLX

- **Operation status**



* The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

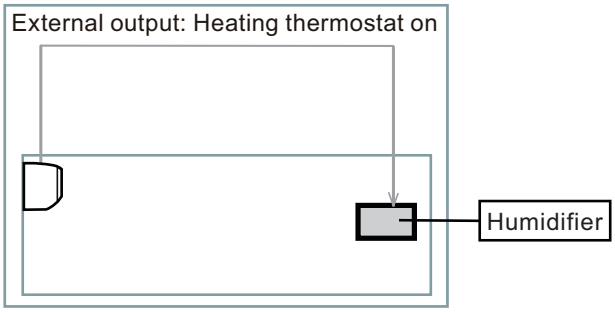
- Other than heating
- Test run

CASSETTE TYPE
AUU42-48RGLX

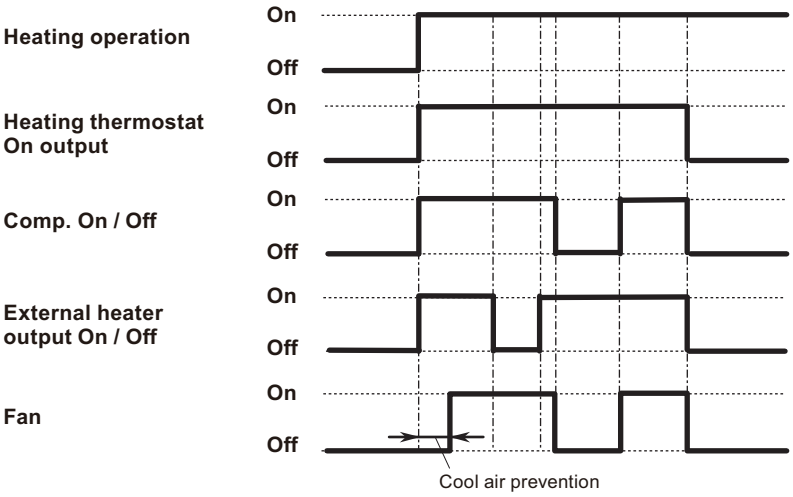
■ Heating thermostat on for humidifier

Situation	Indoor unit				
	Mode	Function setting	Rotary SW	External output	
		Heating thermostat on no. 60		Heating thermostat on	Indoor unit fan operation status
Example of individual connection	5	60-05	7	CN47	Not used
	6	60-06	8	Output3	
	7	60-07	9	Output2	
	8	60-08	A	Output1	

- **Example of individual connection**



- **Operation status**
  The heating thermostat output for CN47, Output1, Output2, and Output3 will be on when comp on or external heater on.
  The heating thermostat output will be off when comp off and external heater off.



CASSETTE TYPE
AUU42-48RGLX

9. Function settings

To adjust the functions of this product according to the installation environment, various types of function settings are available.

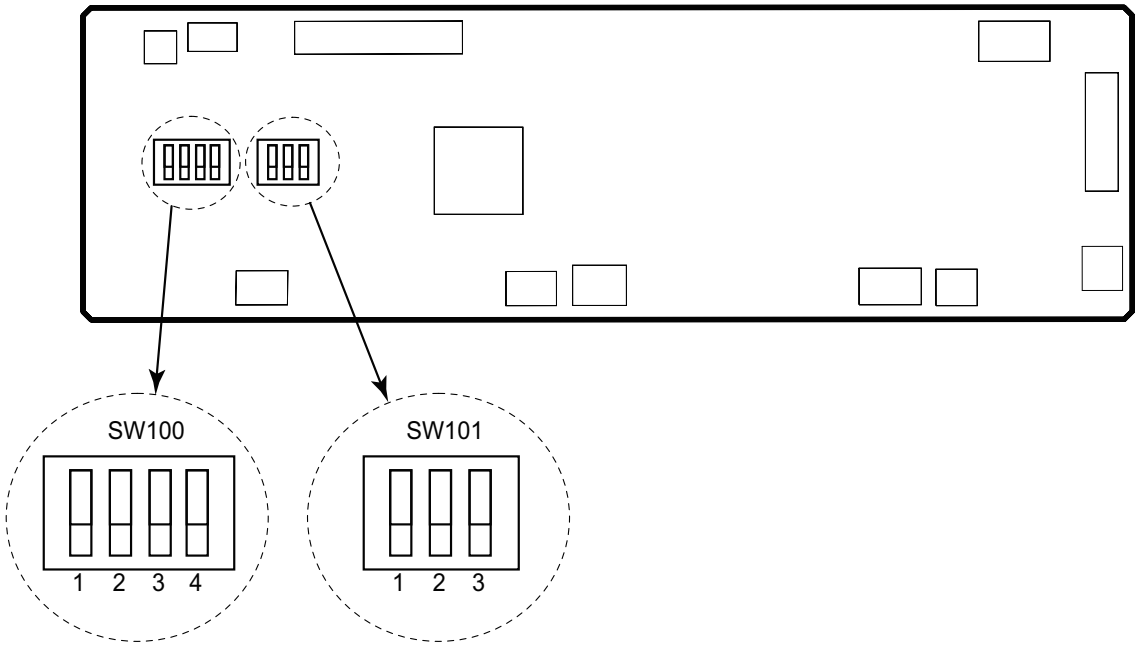
NOTE: Incorrect settings can cause a product malfunction.

9-1. Function settings on indoor unit

By using some components on the PCB, you can change the function settings.

■ Component location

Components on the indoor unit main PCB used for the function settings are located as shown in the following figure.



CASSETTE TYPE
AUU42-48RGLX

■ DIP switch setting

- **SW100: Remote controller address setting**

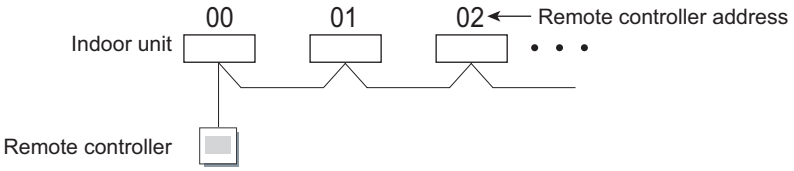
  NOTE: Because this setting is normally done automatically when 2-core wired remote controller is installed, setting is unnecessary.

Multiple indoor units can be operated by using one wired remote controller.
Set the unit number of each indoor unit.

Remote controller address	DIP switch number				Factory setting
	1	2	3	4	
00	OFF	OFF	OFF	OFF	♦
01	ON	OFF	OFF	OFF	
02	OFF	ON	OFF	OFF	
03	ON	ON	OFF	OFF	
04	OFF	OFF	ON	OFF	
05	ON	OFF	ON	OFF	
06	OFF	ON	ON	OFF	
07	ON	ON	ON	OFF	
08	OFF	OFF	OFF	ON	
09	ON	OFF	OFF	ON	
10	OFF	ON	OFF	ON	
11	ON	ON	OFF	ON	
12	OFF	OFF	ON	ON	
13	ON	OFF	ON	ON	
14	OFF	ON	ON	ON	
15	ON	ON	ON	ON	

NOTES:

- When connecting Polar 3-core wired remote controller, set the remote controller address in the order of 0, 1, 2, ..., and 15.
- When different type of indoor units (such as wall-mounted type and cassette type, cassette type and duct type, or other combinations) are connected using group control system, some functions may no longer be available.



- **SW101: Setting change prohibited**

CASSETTE TYPE
AUU42-48RGLX

9-2. Contents of function setting

Each function setting listed in this section is adjustable in accordance with the installation environment.

NOTE: Setting will not be changed if invalid numbers or setting values are selected.

■ Function setting list

	Function no.	Functions
1)	11	Filter sign
2)	20	Ceiling height
3)	22	Outlet directions
4)	23	Vertical airflow direction range control
5)	30/31	Room temperature control for indoor unit sensor
6)	35/36	Room temperature control for wired remote controller sensor
7)	40	Auto restart
8)	42	Room temperature sensor switching
9)	44	Remote controller custom code
10)	46	External input control
11)	48	Room temperature sensor switching (Aux.)
12)	49	Indoor unit fan control for energy saving for cooling
13)	60	Switching functions for external output terminal
14)	61	Control switching of external heaters
15)	62	Operating temperature switching of external heaters
16)	66	Outdoor temperature zone boundary temperature A
17)	67	Outdoor temperature zone boundary temperature B

1) Filter sign

Select appropriate intervals for displaying the filter sign on the indoor unit according to the estimated amount of dust in the air of the room.
If the indication is not required, select "No indication" (03).

Function number	Setting value	Setting description	Factory setting
11	00	Standard (2,500 hours)	
	01	Long interval (4,400 hours)	
	02	Short interval (1,250 hours)	
	03	No indication	♦

2) Ceiling height

Select the appropriate ceiling height according to the place of installation.

Function number	Setting value	Setting description	Factory setting
20	00	Standard	♦
	01	High ceiling	
	02	Low ceiling	

For the specific height for each setting value, refer to “Installation space” in Chapter 2. "Dimensions" on page 4.

In case of cassette type models:
The ceiling height values are for the 4-way outlet. Do not change this setting in the 3-way outlet mode.

CASSETTE TYPE
AUU42-48RGLX

3) Outlet directions

Select the appropriate number of outlet directions according to the installation conditions.

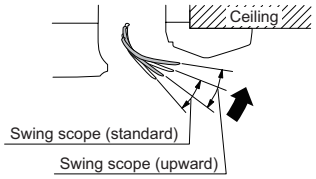
Function number	Setting value	Setting description	Factory setting
22	00	4-way	♦
	01	3-way	

4) Vertical airflow direction range control

To prevent draft, change the setting to "Upward" (01).

Note that the airflow in certain usage conditions may leave the ceiling dirty. In such cases, the use of the optional Panel Spacer is recommended.

Function number	Setting value	Setting description	Factory setting
23	00	Standard	♦
	01	Upward	



CASSETTE TYPE
AUU42-48RGLX

5) Room temperature control for indoor unit sensor

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

The temperature of the room temperature sensor is corrected as follows:

Corrected temp. = Temp. of the room temp. sensor - Correction temp. value

Example of correction:

When the temperature of the room temp. sensor is 78°F and the setting value is “03” (-2°F), the corrected temp. will be 80°F (78°F - [-2°F]).

The temperature correction values show the difference from the Standard setting “00” (manufacturer’s recommended value).

Function number		Setting value	Setting description		Factory setting
30 (For cooling)	31 (For heating)	00	Standard setting		♦
		01	No correction 0.0 °F (0.0 °C)		
		02	-1 °F (-0.5 °C)	More cooling Less heating	
		03	-2 °F (-1.0 °C)		
		04	-3 °F (-1.5 °C)		
		05	-4 °F (-2.0 °C)		
		06	-5 °F (-2.5 °C)		
		07	-6 °F (-3.0 °C)		
		08	-7 °F (-3.5 °C)		
		09	-8 °F (-4.0 °C)		
		10	+1 °F (+0.5 °C)	Less cooling More heating	
		11	+2 °F (+1.0 °C)		
		12	+3 °F (+1.5 °C)		
		13	+4 °F (+2.0 °C)		
		14	+5 °F (+2.5 °C)		
		15	+6 °F (+3.0 °C)		
		16	+7 °F (+3.5 °C)		
		17	+8 °F (+4.0 °C)		

CASSETTE TYPE
AUU42-48RGLX

6) Room temperature control for wired remote controller sensor

Depending on the installed environment, correction of the wire remote temperature sensor may be required. Select the appropriate control setting according to the installed environment.

To change this setting, set Function 42 to “Both“ (01).

Ensure that the Thermo Sensor icon is displayed on the remote controller screen.

Function number		Setting value	Setting description		Factory setting
35 (For cooling)	36 (For heating)	00	Standard setting		♦
		01	No correction 0.0 °F (0.0 °C)		
		02	-1 °F (-0.5 °C)	More cooling Less heating	
		03	-2 °F (-1.0 °C)		
		04	-3 °F (-1.5 °C)		
		05	-4 °F (-2.0 °C)		
		06	-5 °F (-2.5 °C)		
		07	-6 °F (-3.0 °C)		
		08	-7 °F (-3.5 °C)		
		09	-8 °F (-4.0 °C)		
		10	+1 °F (+0.5 °C)	Less cooling More heating	
		11	+2 °F (+1.0 °C)		
		12	+3 °F (+1.5 °C)		
		13	+4 °F (+2.0 °C)		
		14	+5 °F (+2.5 °C)		
		15	+6 °F (+3.0 °C)		
		16	+7 °F (+3.5 °C)		
		17	+8 °F (+4.0 °C)		

7) Auto restart

Enables or disables automatic restart after a power interruption.

Function number	Setting value	Setting description	Factory setting
40	00	Enable	♦
	01	Disable	

NOTE: Auto restart is an emergency function such as for power outage etc. Do not attempt to use this function in normal operation. Be sure to operate the unit by remote controller or external device.

8) Room temperature sensor switching

(Only for wired remote controller)

When using the wired remote controller temperature sensor, change the setting to "Both" (01).

Function number	Setting value	Setting description	Factory setting
42	00	Indoor unit	♦
	01	Both	

00: Sensor on the indoor unit is active.

01: Sensors on both indoor unit and wired remote controller are active.

NOTE: Remote controller sensor must be turned on by using the remote controller.

CASSETTE TYPE
AUU42-48RGLX

9) Remote controller custom code

(Only for wireless remote controller)

The indoor unit custom code can be changed. Select the appropriate custom code.

Function number	Setting value	Setting description	Factory setting
44	00	A	♦
	01	B	
	02	C	
	03	D	

10) External input control

"Operation/Stop" mode or "Forced stop" mode can be selected.

Function number	Setting value	Setting description	Factory setting
46	00	Operation/Stop mode 1	♦
	01	(Setting prohibited)	
	02	Forced stop mode	
	03	Operation/Stop mode 2	

11) Room temperature sensor switching (Aux.)

To use the temperature sensor on the wired remote controller only, change the setting to "Wired remote controller" (01).

This function will only work if the function setting 42 is set at "Both" (01).

When the setting value is set to "Both" (00), more suitable control of the room temperature is possible by setting function setting 30 and 31 too.

Function number	Setting value	Setting description	Factory setting
48	00	Both	♦
	01	Wired remote controller	

12) Indoor unit fan control for energy saving for cooling

Enables or disables the power-saving function by controlling the indoor unit fan rotation when the outdoor unit is stopped during cooling operation.

Function number	Setting value	Setting description	Factory setting
49	00	Disable	
	01	Enable	
	02	Remote controller	♦

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.

01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.

02: Enable or disable this function by remote controller setting.

NOTES:

- As the factory setting, this setting is initially invalidated.
- Set to "00" or "01" when connecting a remote controller that cannot set the Fan control for energy saving function or connecting a network converter.
  To confirm if the remote controller has this setting, refer to the operating manual of each remote controller.

CASSETTE TYPE
AUU42-48RGLX

13) Switching functions for external output terminal

Functions of the external output terminal can be switched. For details, refer to “External input and output”.

Function number	Setting value	Setting description	Factory setting
60	00	Operation status	♦
	01—04	Cooling thermostat On	
	05	Heating operation	
	06	Operation/Stop	
	07—08	Cooling thermostat On	
	09	Error status	
	10	Indoor unit fan operation status	
	11	External heater	

14) Control switching of external heaters

Sets the control method for external heater to be used.

For details, refer to “External heater output” in Chapter 8-4. "Details of function" on page 29.

Function number	Setting value	Setting description	Factory setting
61	00	Auxiliary heater control 1	♦
	01	Auxiliary heater control 2	
	02	Heat pump prohibition control	
	03	Auxiliary heater control by outdoor temperature 1	
	04	Auxiliary heater control by outdoor temperature 2	

15) Operating temperature switching of external heaters

Sets the temperature conditions when the external heater is ON.

For details, refer to “External heater output” in Chapter 8-4. "Details of function" on page 29.

Function number	Setting value	Setting description		Factory setting
		Heater: On	Heater: Off	
62	00	-5.4 °F (-3 °C)	-1.8 °F (-1 °C)	♦
	01	-3.6 °F (-2 °C)	-1.8 °F (-1 °C)	
	02	-3.6 °F (-2 °C)	-1.8 °F (-1 °C)	
	03	-5.4 °F (-3 °C)	-1.8 °F (-1 °C)	
	04	-7.2 °F (-4 °C)	-1.8 °F (-1 °C)	
	05	-9.0 °F (-5 °C)	-1.8 °F (-1 °C)	

CASSETTE TYPE
AUU42-48RGLX

16) Outdoor temperature zone boundary temperature A

Setting required if changing of the outdoor temperature setting for heat pump prohibition zone is required when auxiliary heater control by outdoor temperature 1 and 2 are performed on the indoor unit. For details, refer to “External heater output” in Chapter 8-4. "Details of function" on page 29.

Function number	Setting value	Setting description	Factory setting
66	00	-4.0 °F (-20 °C)	♦
	01	-0.4 °F (-18 °C)	
	02	3.2 °F (-16 °C)	
	03	6.8 °F (-14 °C)	
	04	10.4 °F (-12 °C)	
	05	14.0°F (-10 °C)	
	06	17.6 °F (-8 °C)	
	07	21.2 °F (-6 °C)	
	08	24.8 °F (-4 °C)	

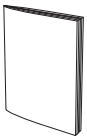
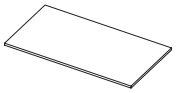
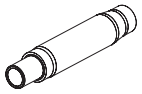
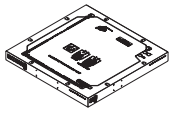
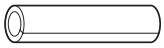
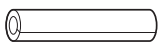
17) Outdoor temperature zone boundary temperature B

Setting required if changing of the outdoor temperature setting for heat pump only zone is required when auxiliary heater control by outdoor temperature 1 is performed on the indoor unit. For details, refer to “External heater output” in Chapter 8-4. "Details of function" on page 29.

Function number	Setting value	Setting description	Factory setting
67	00	42.8 °F (6 °C)	♦
	01	14.0 °F (-10 °C)	
	02	17.6 °F (-8 °C)	
	03	21.2 °F (-6 °C)	
	04	24.8 °F (-4 °C)	
	05	28.4°F (-2 °C)	
	06	32.0 °F (0 °C)	
	07	35.6 °F (2 °C)	
	08	39.2 °F (4 °C)	
	09	42.8 °F (6 °C)	
	10	46.4 °F (8 °C)	
	11	50.0 °F (10 °C)	
	12	53.6 °F (12 °C)	
	13	57.2 °F (14 °C)	
	14	60.8 °F (16 °C)	
	15	64.4 °F (18 °C)	

CASSETTE TYPE
AUU42-48RGLX

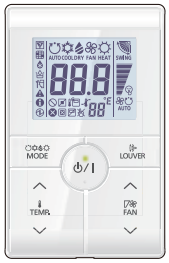
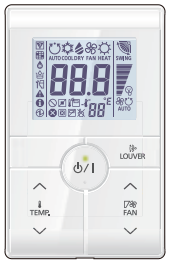
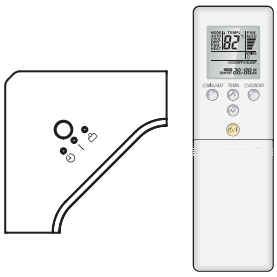
10. Accessories

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Installation manual		1	Insulation		1
Operation manual		1	Drain hose		1
Template (Carton top)		1	Hose band		1
Washer		8	Drain hose heat insulation		1
Coupler heat insulation (Large)		1	Cable tie (Large)		4
Coupler heat insulation (Small)		1	Cable tie (Small)		2

CASSETTE TYPE
AUU42-48RGLX

11. Optional parts

11-1. Controllers

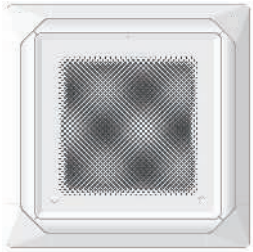
Exterior	Part name	Model name	Summary
	Wired Remote Controller	UTY-RNRUZ*	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Wire type: Non-polar 2-wire
	Simple Remote Controller	UTY-RSRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, temperature setting, and operation mode. Wire type: Non-polar 2-wire
	Simple Remote Controller	UTY-RHRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, and temperature setting. Wire type: Non-polar 2-wire
	IR Receiver Kit with Wireless Remote Controller	UTY-LBTUC	Unit control is performed by Wireless Remote Controller.

NOTES:

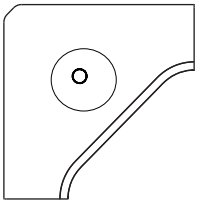
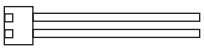
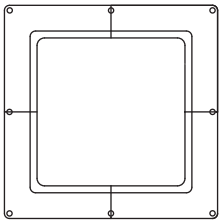
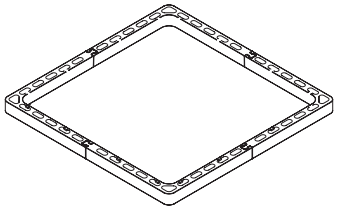
- Available functions may differ by the remote controller. For details, refer to the operation manual.
- When using the group controlling system of the Wired Remote Controller, using WLAN Adapter is prohibited.

CASSETTE TYPE
AUU42-48RGLX

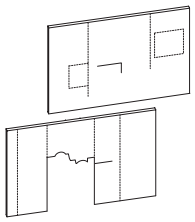
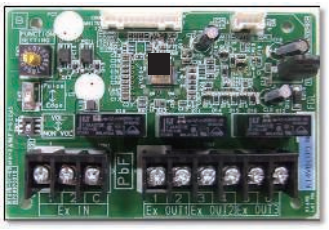
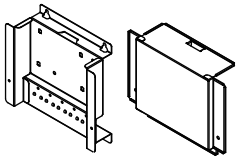
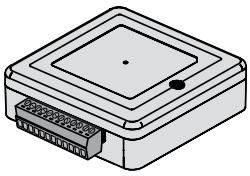
11-2. Cassette grille

Exterior	Part name	Model name	Summary
	Cassette Grille	UTG-GCGF	This cassette grille to blow airflow in 360º direction by unique seamless airflow louver design.
	Cassette Grille	UTG-LCGVCB	This cassette grille to blow airflow in 360º direction by unique seamless airflow louver design. Black color model.

11-3. Others

Exterior	Part name	Model name	Summary
	Human Sensor Kit	UTY-SHZXC	For circular flow cassette type.
	External Connect Kit	UTY-XWZXZG	Use to connect with various peripheral devices and air conditioner PCB. For control output port.
	Air Outlet Shutter Plate	UTR-YDZK	Installed at the air outlet when 3-directions mode is performed.
	Wide Panel	UTG-AKXA-W	Hides the gap between the ceiling hole and the cassette grille.
	Panel Spacer	UTG-BKXA-W	If there is not enough height in the ceiling space, by inserting this spacer between the cassette grille and the ceiling surface, the height of the unit body goes into the ceiling space become 50-mm lower.
	Fresh Air Intake Kit	UTZ-VXRA	By attaching Fresh Air Intake Kit to the indoor unit, it can be taken in fresh air of up to 10% of “high” air volume of the indoor unit. Do not branch the connecting duct into multiple rooms.

CASSETTE TYPE
AUU42-48RGLX

Exterior	Part name	Model name	Summary
	Insulation for High Humidity	UTZ-KXRA	Install when the under-roof condition is expected to be the humidity of over 80% and the temperature of over 86 °F(30 °C).
	External Input and Output PCB	UTY-XCSX	Use to connect with external devices and air conditioner PCB.
	External Input and Output PCB Box	UTZ-GXRA	For installing the External input and output PCB.
	WLAN Adapter	UTY-TFSXZ2	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets. For connection indoor unit with UART interface. Appropriate application for each region is required to use this option. For details, contact FGL sales company.
	Modbus Converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network.
	Thermostat Converter	UTY-TTRX	This converter can control Fujitsu General products using a third-party thermostat controller.
	Network Converter	UTY-VTGX	This converter is required when connecting single split system to VRF network system.
	Network Converter (AC power supply)	UTY-VTGXV	This converter is required when connecting single split system to VRF network system.

NOTE: Combined use of following optional parts and WLAN Adapter (UTY-TFSXZ2) is not allowed.

- External Input and Output PCB
- Modbus Converter
- Thermostat Converter
- Network Converter
- Network Converter (AC power supply)

CASSETTE TYPE
AUU42-48RGLX

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOU42RGLX
AOU48RGLX

1. Specifications

Type				Inverter, Heat pump	
Model name				**AOU42RGLX**	**AOU48RGLX**
Power supply				208/230 V~ 60 Hz	
Power supply intake				Outdoor unit	
Available voltage range				187—253 V	
Starting current			A	16.8	20.9
Fan	Airflow rate	Cooling	CFM (m^3/h)	3,973 (6,750)	4,061 (6,900)
		Heating		3,649 (6,200)	4,091 (6,950)
	Type × Qty			Propeller × 2	
	Motor output		W	81	
Sound pressure level *		Cooling	dB (A)	55	57
		Heating		57	59
Heat exchanger type		Dimensions (H × W × D)	in (mm)	Main 1: 31-7/16 × 35-7/16 × 1-7/16 (798 × 900 × 36.4) Main 2: 18-3/16 × 35-7/16 × 1-7/16 (462 × 900 × 36.4)	
		Fin pitch	FPI	20	
		Rows × Stages		Main 1: 2 × 22 Main 2: 2 × 38	
		Pipe type		Copper	
		Fin	Type (Material)	Aluminum	
			Surface treatment	Blue fin	
Compressor	Type			DC twin rotary	
	Motor output		W	3,750	
Refrigerant		Type		R410A	
		Charge	lb oz	7 lb 10 oz	
			g	3,450	
Refrigerant oil		Type		POE (VG74)	
		Amount	in^3 (cm^3)	94.6 (1,550)	
Enclosure		Material		Steel	
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0	
Dimensions (H × W × D)	Net		in (mm)	50-13/16 × 35-7/16 × 13 (1,290 × 900 × 330)	
	Gross			57-1/2 × 41-5/16 × 17-1/2 (1,460 × 1,050 × 445)	
Weight	Net		lb (kg)	209 (95)	
	Gross			231 (105)	
Connection pipe	Size	Liquid	in (mm)	Ø3/8 (9.52)	
		Gas		Ø5/8 (15.88)	
	Method			Flare	
	Pre-charge length		ft (m)	98 (30)	
	Max. length			246 (75)	
	Max. height difference			98 (30)	
Operation range		Cooling	°F (°C)	-5 to 115 (-21 to 46)	
		Heating		-5 to 75 (-21 to 24)	
Drain hose	Material			LDPE	
	Tip diameter		in (mm)	Ø1/2 (Ø13.0) (I.D.), Ø5/8 to Ø11/16 (Ø16.0 to Ø16.7) (O.D.)	

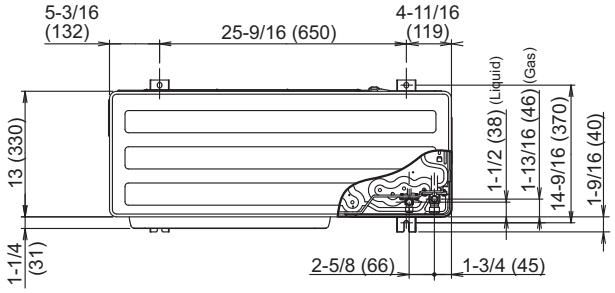
NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB(26.67°CDB)/67°FWB(19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).
  - Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).
  - Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *: Sound pressure level
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

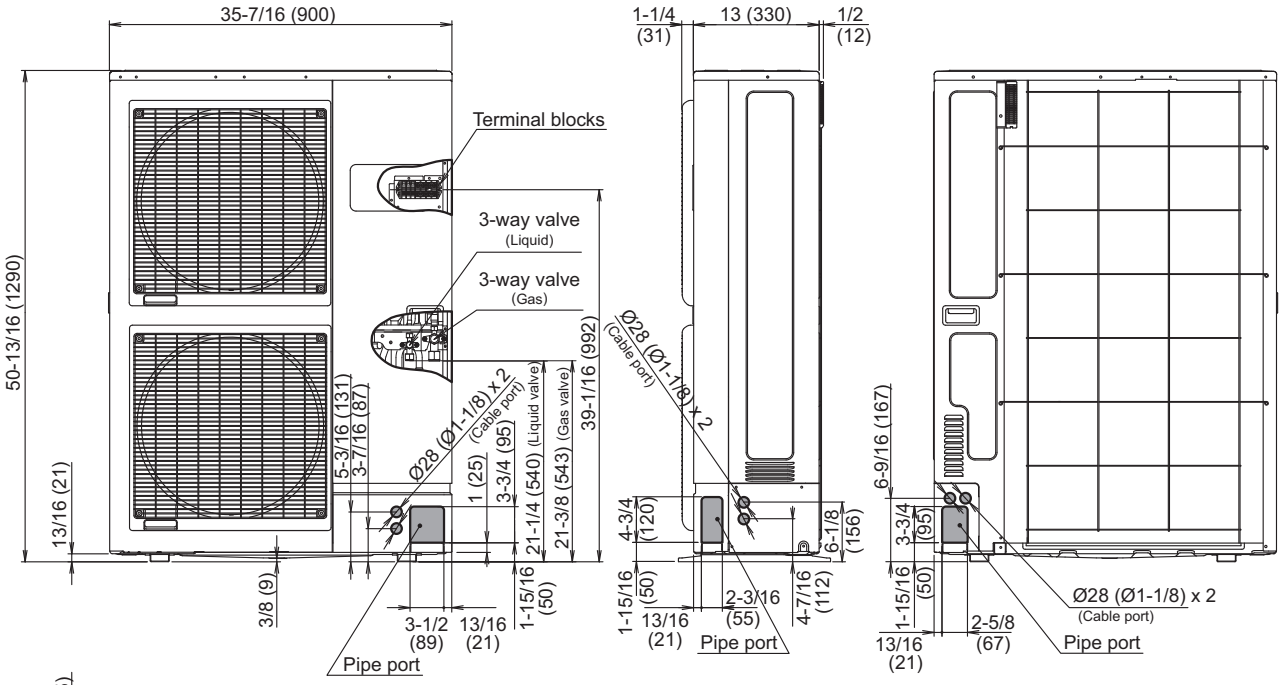
2. Dimensions

2-1. Models: AOU42RGLX and AOU48RGLX

Unit: in (mm)



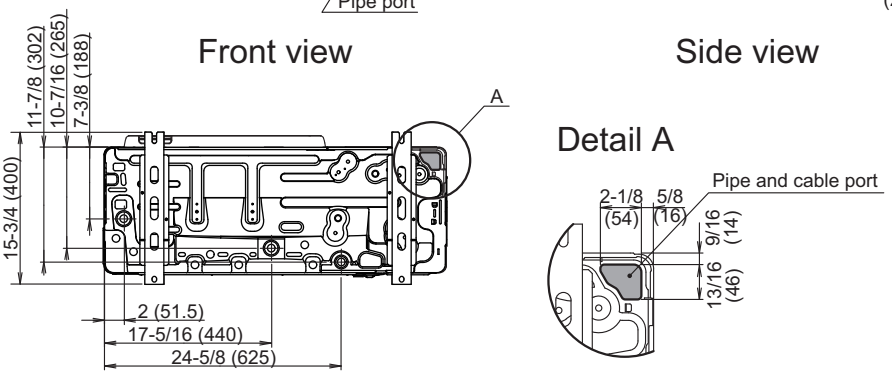
Top view



Front view

Side view

Rear view



Bottom view

Detail A

3. Installation space

3-1. Models: AOU42RGLX and AOU48RGLX

■ Space requirement

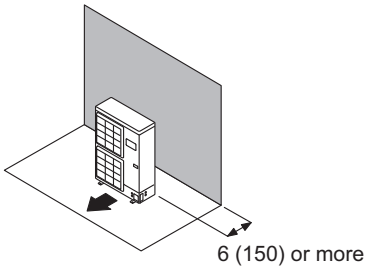
Provide sufficient installation space for product safety.

● Single outdoor unit installation

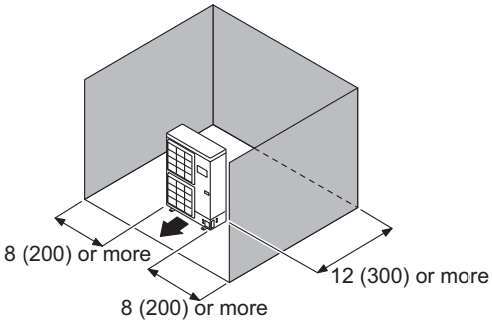
- **When the upper space is open:**

Unit: in (mm)

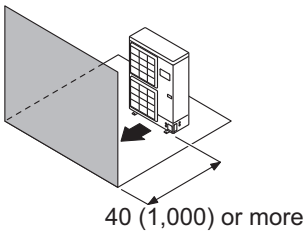
When there are obstacles at the rear only.



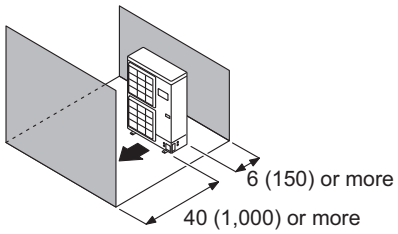
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



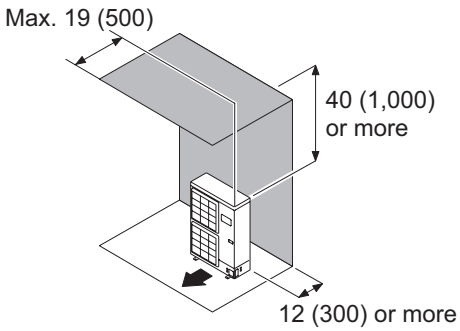
When there are obstacles at the front and rear.



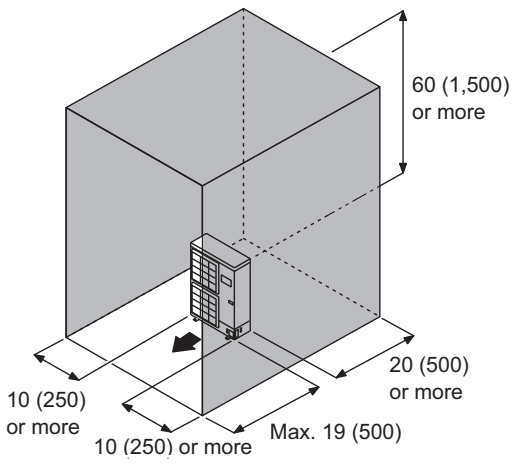
- **When there is an obstruction in the upper space:**

Unit: in (mm)

When there are obstacles at the rear and above.



When there are obstacles at the rear, sides, and above.



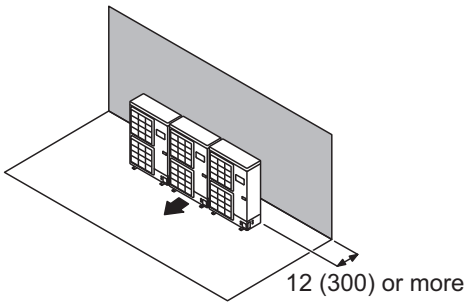
OUTDOOR UNIT
AOU42-48RGLX

● Multiple outdoor unit installation

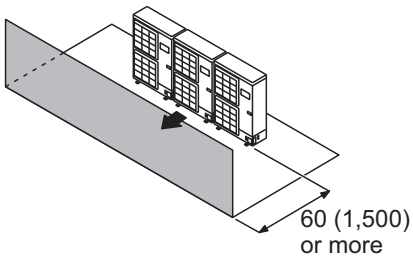
- **When the upper space is open:**

Unit: in (mm)

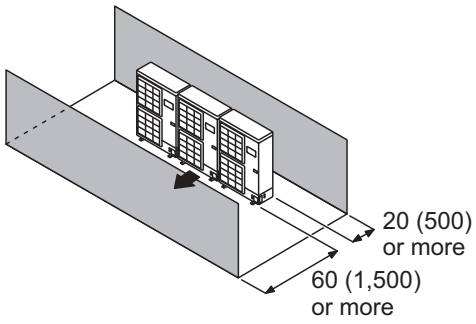
When there are obstacles at the rear only.



When there are obstacles at the front only.



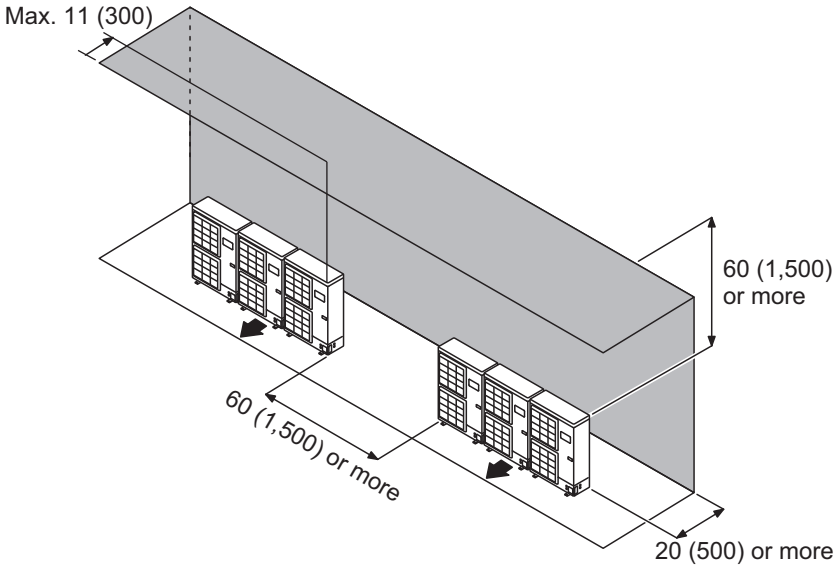
When there are obstacles at the front and rear.



- **When there is an obstruction in the upper space:**

Unit: in (mm)

When there are obstacles at the rear and above.

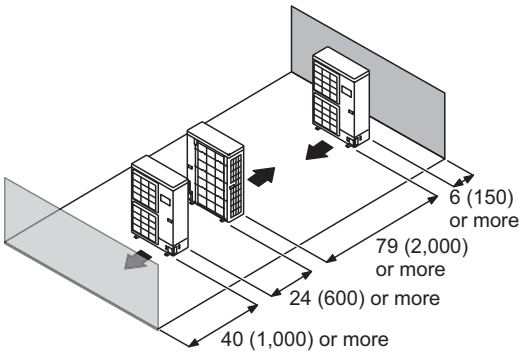


OUTDOOR UNIT
AOU42-48RGLX

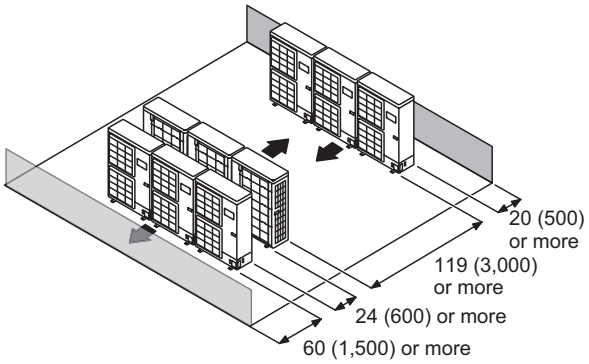
● Outdoor unit installation in multi-row

Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement

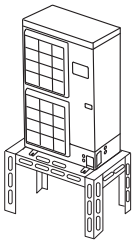


NOTES:

- If the space is larger than stated above, the condition will be the same as when there is no obstacle.
- Height above the floor level should be 2 in (50 mm) or more.
- When installing the outdoor unit, be sure to open the front and left side to obtain better operation efficiency.

⚠ CAUTION

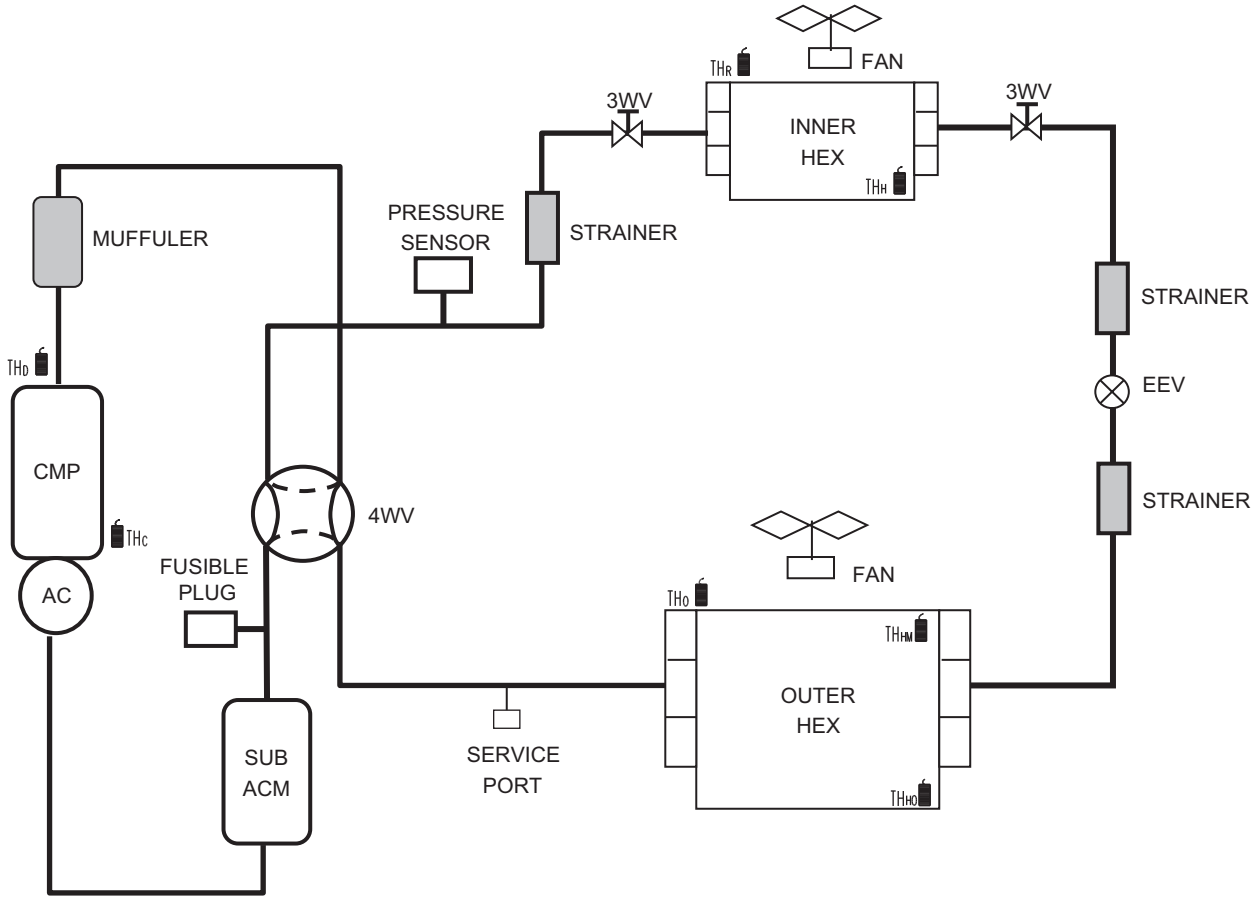
- When the outdoor temperature is 32 °F (0 °C) or less, do not use the accessory drain pipe and drain cap. If the drain pipe and drain cap are used, the drain water in the pipe may freeze in extremely cold climate. (For reverse cycle model only.)
- In area with heavy snowfall, if the inlet and outlet of the outdoor unit is blocked with snow, it might become difficult to get warm, and it is likely to cause product malfunction. Construct a canopy and a pedestal, or place the unit on a high stand that is locally installed.



OUTDOOR UNIT
AOU42-48RGLX

4. Refrigerant circuit

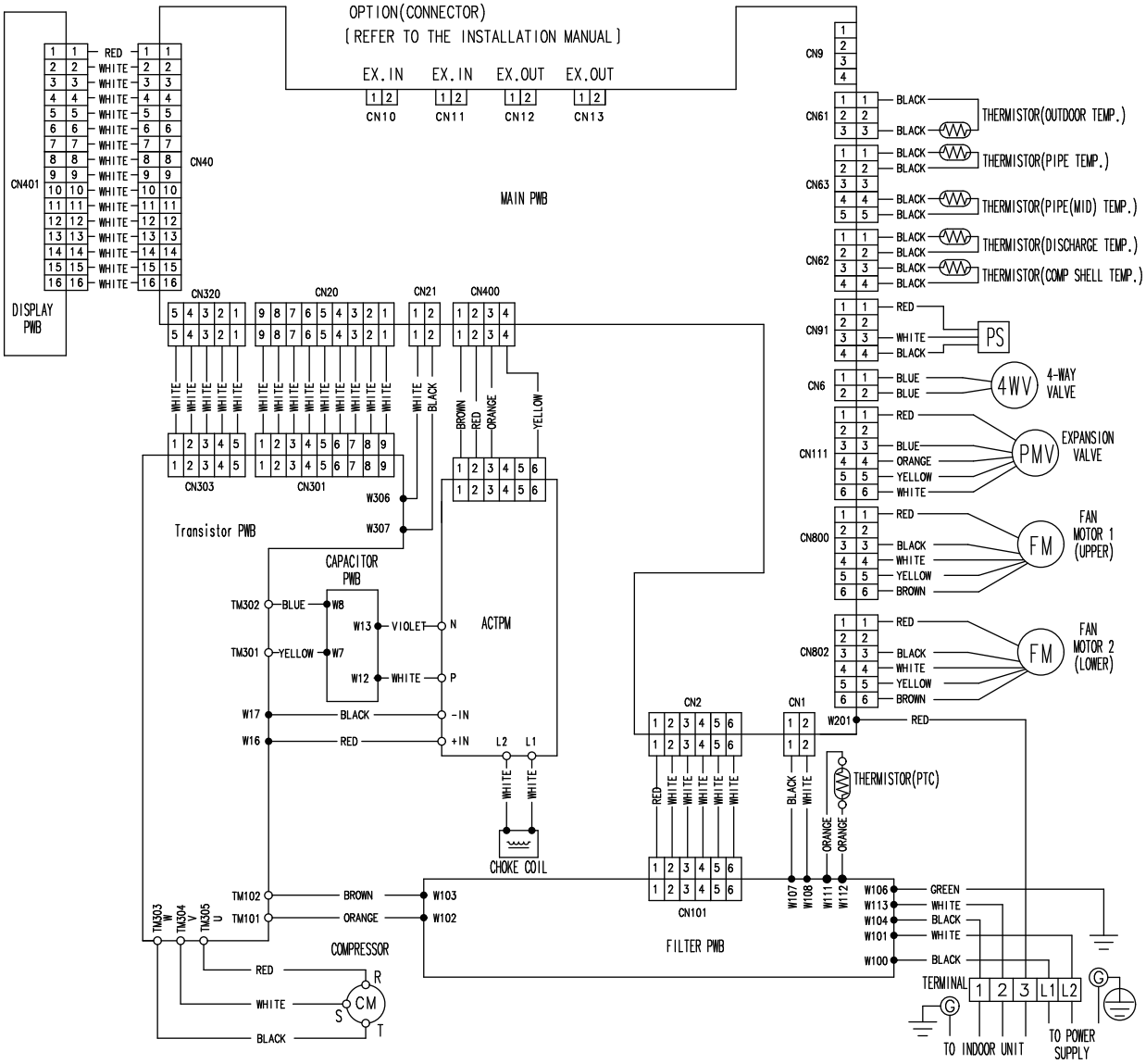
4-1. Models: AOU42RGLX and AOU48RGLX



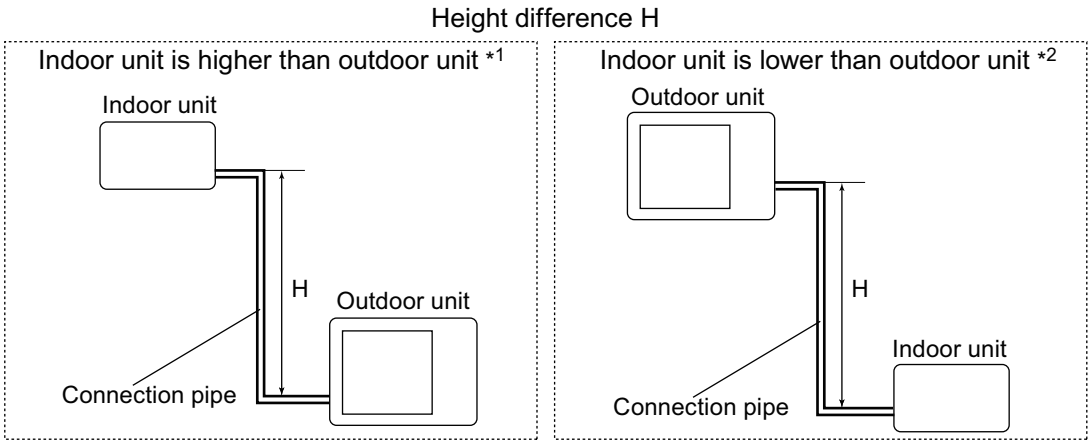
THC : Thermistor (Compressor temperature)
THD : Thermistor (Discharge temperature)
THHM : Thermistor (Heat exchanger Med temperature)
THHO : Thermistor (Heat exchanger Out temperature)
THO : Thermistor (Outdoor temperature)
THR : Thermistor (Room temperature)
THH : Thermistor (Heat exchanger temperature)

5. Wiring diagrams

5-1. Models: AOU42RGLX and AOU48RGLX



6. Capacity compensation rate for pipe length and height difference



6-1. Models: AOU42RGLX and AOU48RGLX

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

COOLING		Pipe length										
		m		5	7.5	10	20	30	40	50	60	75
			ft	16	24	32	65	98	131	164	196	246
Height difference H	Indoor unit is higher than outdoor unit *1	30	98	—	—	—	—	0.879	0.847	0.814	0.782	0.743
		20	65	—	—	—	0.927	0.894	0.861	0.828	0.795	0.755
		10	32	—	—	0.975	0.942	0.909	0.875	0.842	0.808	0.768
		7.5	24	—	0.988	0.979	0.946	0.912	0.879	0.845	0.811	0.771
		5	16	0.992	0.992	0.983	0.950	0.916	0.882	0.848	0.815	0.774
		0	0	1.000	1.000	0.991	0.957	0.923	0.889	0.855	0.821	0.780
	Indoor unit is lower than outdoor unit *2	-5	-16	1.000	1.000	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-7.5	-24	—	1.000	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-10	-32	—	—	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-20	-65	—	—	—	0.957	0.923	0.889	0.855	0.821	0.780
		-30	-98	—	—	—	—	0.923	0.889	0.855	0.821	0.780

HEATING		Pipe length										
		m		5	7.5	10	20	30	40	50	60	75
			ft	16	24	32	65	98	131	164	196	246
Height difference H	Indoor unit is higher than outdoor unit *1	30	98	—	—	—	—	0.978	0.968	0.958	0.948	0.935
		20	65	—	—	—	0.988	0.978	0.968	0.958	0.948	0.935
		10	32	—	—	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		7.5	24	—	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		5	16	1.000	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		0	0	1.000	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
	Indoor unit is lower than outdoor unit *2	-5	-16	0.995	0.995	0.993	0.983	0.973	0.963	0.953	0.943	0.930
		-7.5	-24	—	0.993	0.990	0.980	0.970	0.960	0.950	0.940	0.928
		-10	-32	—	—	0.988	0.978	0.968	0.958	0.948	0.938	0.926
		-20	-65	—	—	—	0.968	0.958	0.948	0.938	0.929	0.916
		-30	-98	—	—	—	—	0.948	0.939	0.929	0.919	0.907

7. Additional charge calculation

7-1. Models: AOU42RGLX and AOU48RGLX

OUTDOOR UNIT
AOU42-48RGLX

Refrigerant type		R410A
Factory charge amount	lb oz	7 lb 10 oz
	g	3,450

■ Refrigerant charge

Total pipe length	ft	98 or less	131	164	196	246 (Max.)	0.43 oz/ft (40 g/m)
	m	30 or less	40	50	60	75 (Max.)	
Additional charge amount	oz	0	14.1	28.2	42.3	63.5	
	g	0	400	800	1,200	1,800	

OUTDOOR UNIT
AOU42-48RGLX

8. Airflow

8-1. Model: AOU42RGLX

● Cooling

m^3/h	6,750
l/s	1,875
CFM	3,973

● Heating

m^3/h	6,200
l/s	1,722
CFM	3,649

8-2. Model: AOU48RGLX

● Cooling

m^3/h	6,900
l/s	1,917
CFM	4,061

● Heating

m^3/h	6,950
l/s	1,931
CFM	4,091

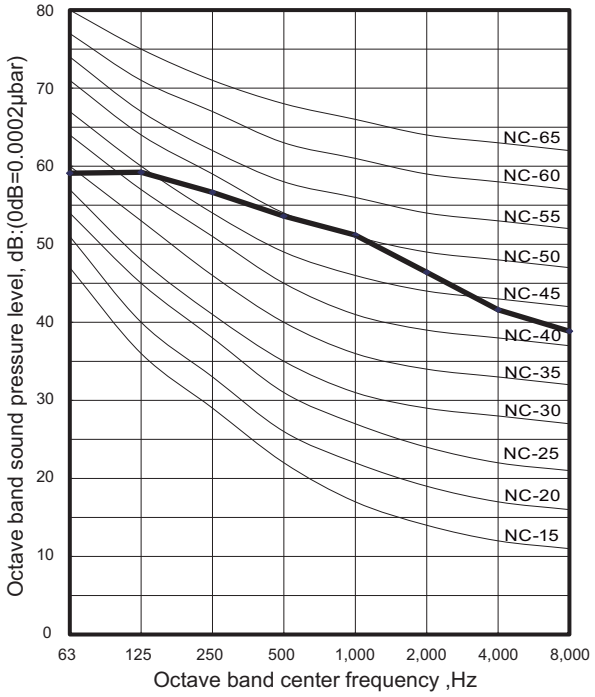
OUTDOOR UNIT
AOU42-48RGLX

9. Operation noise (sound pressure)

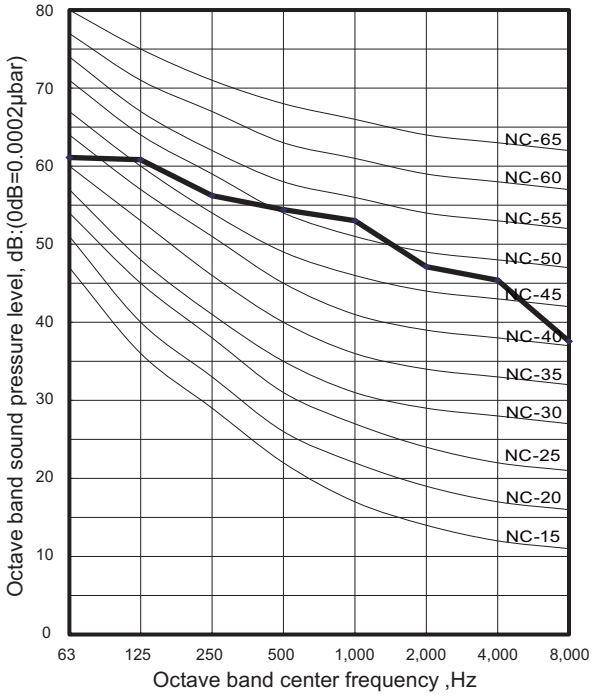
9-1. Noise level curve

■ Model: AOU42RGLX

● Cooling

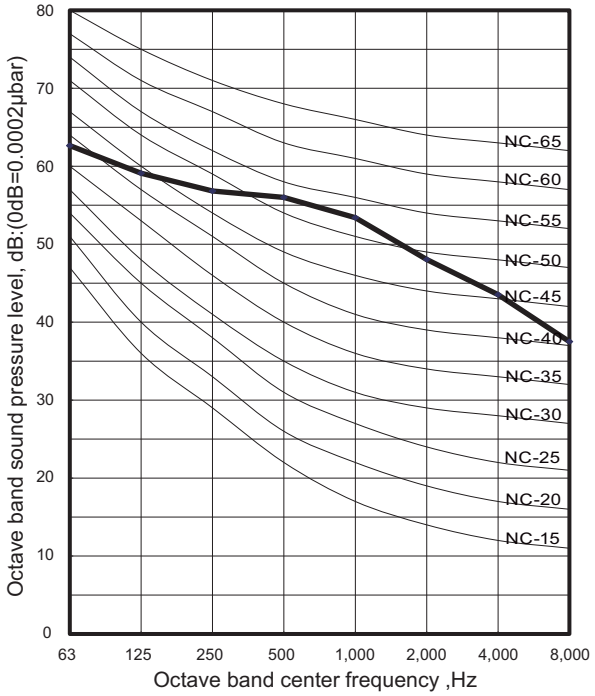


● Heating

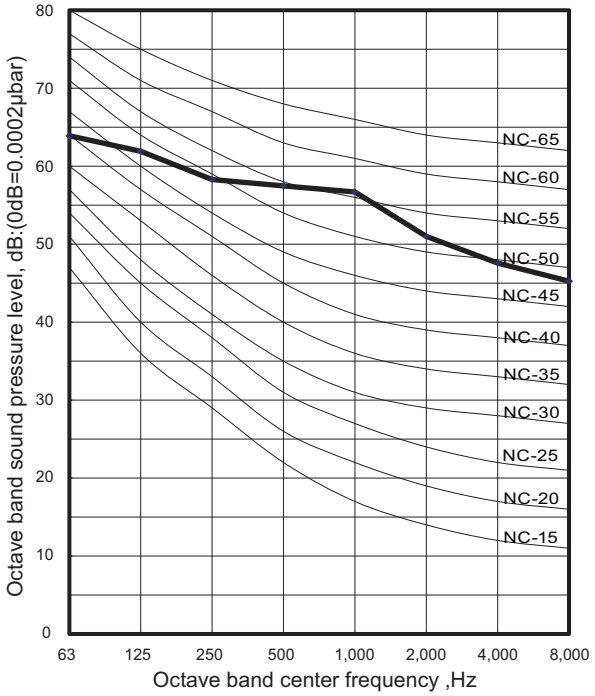


■ Model: AOU48RGLX

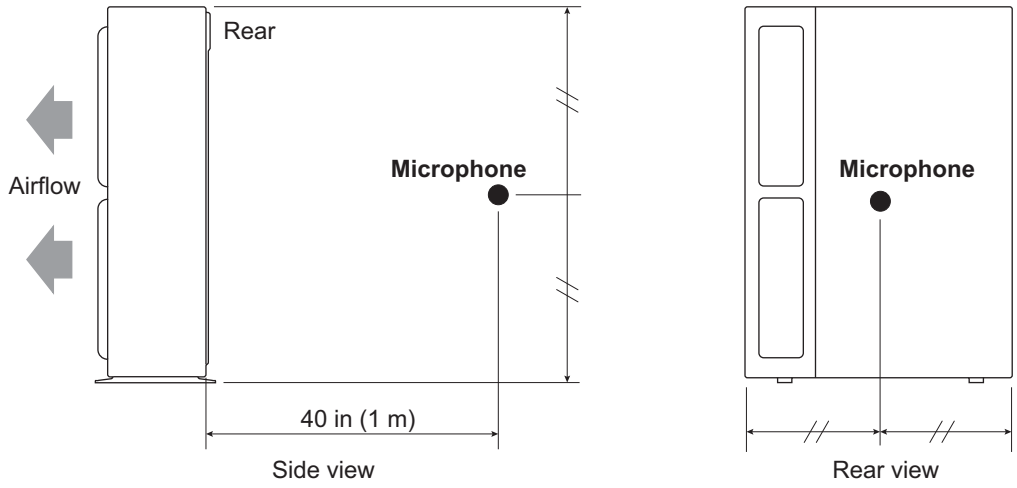
● Cooling



● Heating



9-2. Sound level check point



NOTE: Detailed shape of the actual outdoor unit might be slightly different from the one illustrated above.

10. Electrical characteristics

Item			Unit	Model name	
				AOU42RGLX	AOU48RGLX
Power supply	Voltage		V	208/230~	
	Frequency		Hz	60	
MCA *1			A	25.2	28.3
Starting current			A	16.8	20.9
Wiring spec. *2	MAX. CKT. BKR *3		A	30	
	Power cable		AWG	14—10	
	Connection cable *4	Size	AWG	18—16	
		Limited wiring length	ft (m)	250 (76)	

*1: Minimum Circuit Ampacity (Calculation based on UL1995)

*2: Selected sample based on Japan Electrotechnical Standards and Codes Committee E0005. As the regulations of wire size and circuit breaker differ in each country or region, select appropriate devices complied to the regional standard.

*3: Maximum Circuit Breaker

*4: Limit voltage drop to less than 2%. If voltage drop is 2% or more, increase cable conductor size.

11. Safety devices

Type of protection	Protection form			Model	
				AOU42RGLX	AOU48RGLX
Circuit protection	Current fuse (Filter PCB)			250 V, 30 A 250 V, 10 A × 2 250 V, 5 A	
	Current fuse (Main PCB)			250 V, 3.15 A	
Fan motor protection	Thermal protection	Activate		252 ±16°F (122 ±9°C) Fan motor stop	
		Reset		241 ±16°F (116 ±9°C) Fan motor restart	
Compressor protection	Terminal protection program (Compressor temp.)	Activate		226°F (108°C) Compressor stop	
		Reset		After 40 minutes Compressor restart	
	Thermal protection program (Discharge temp.)	Activate		230°F (110°C) Compressor stop	
		Reset		After 7 minutes Compressor restart	
High pressure protection	Thermal protection program (Heat exchanger temp.)	Cooling	Activate	154°F (68°C) Compressor stop	
			Reset	145°F (63°C) Compressor restart	
	Pressure sensor	Heating	Activate	594.5 psi (4.1 MPa) Compressor stop	
			Reset	After 3 minutes Compressor restart	
Low pressure protection	Pressure sensor	Cooling	Activate	17.4 psi (0.12 MPa) or less (for 5 minutes) Compressor stop	
			Reset	After 7 minutes Compressor restart	

OUTDOOR UNIT
AOU42-48RGLX

12. External input and output

With using external input and output functions, this product can be operated inter-connectedly with an external device.

Connector	Input	Output	Remarks
CN10	Low noise mode	—	See external input/output settings for details.
CN11	Peak cut mode	—	
CN12	—	Error status	
CN13	—	Compressor status	

12-1. External input

With using external input function, on/off status of “Low noise mode” and “Peak cut mode” can be specified by the external signal.

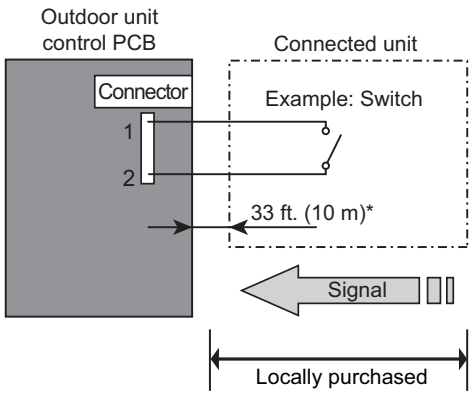
■ Low noise mode

In following condition, the operating noise of the outdoor unit reduces comparing from the one in normal operating condition:

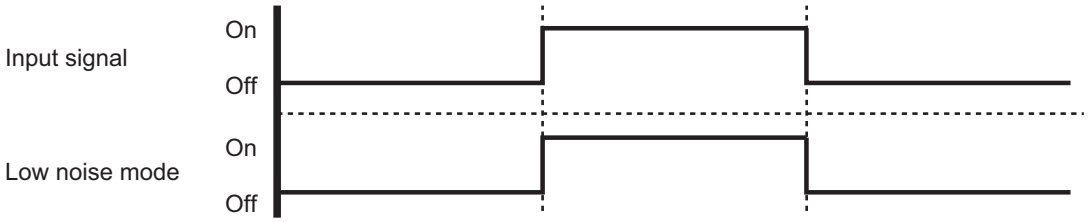
The air conditioner is set to the “Low noise mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

NOTE: Product performance may drop depending on some conditions such as the outdoor temperature.

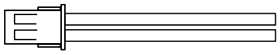
- **Circuit diagram example**



- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Low noise mode”
- Input signal: Off in normal operation
- To set the level of “Low noise mode”, refer to "Low noise mode" on page 78.



- **Optional part**

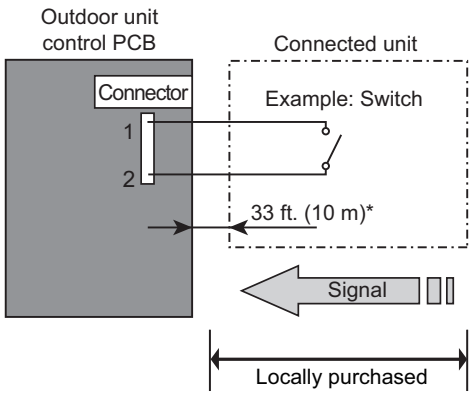
Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External input wire 

OUTDOOR UNIT
AOU42-48RGLX

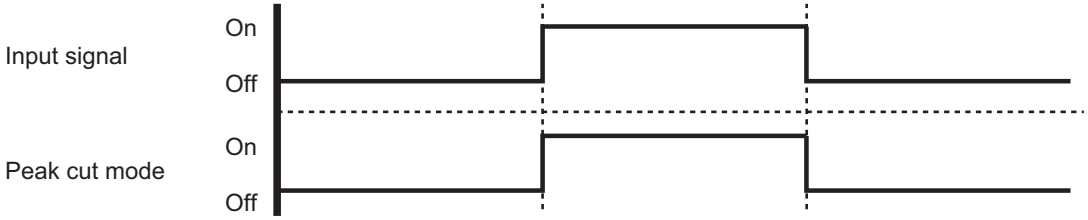
■ Peak cut mode

By performing following on-site work, operation that suppresses the current value can be enabled:
The air conditioner is set to the “Peak cut mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

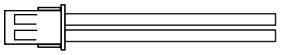
- **Circuit diagram example**



- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Peak cut mode”
- Input signal: Off in normal operation
- To set the level of “Peak cut mode”, refer to "Peak cut mode" on page 79.



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External input wire 

OUTDOOR UNIT
AOU42-48RGLX

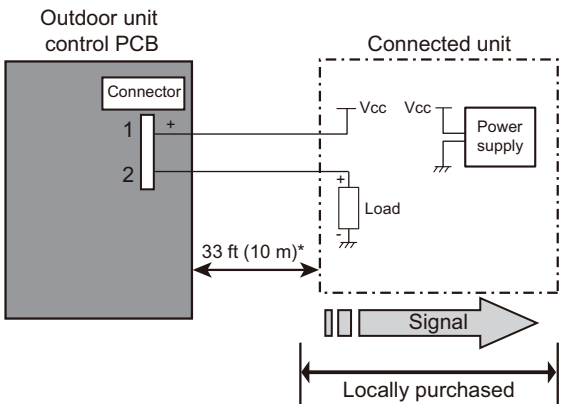
12-2. External output

With using external output function, some status signals are transmitted to the control PCB, and the related LED lamp indicates the status of this product.

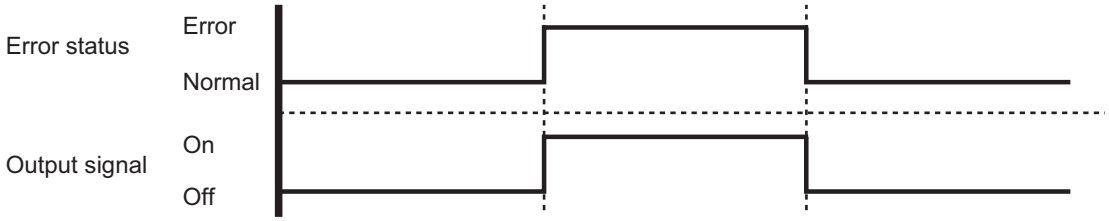
■ Error status output

Signal on air conditioner error status is generated when a malfunction occurs.

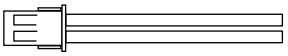
- **Circuit diagram example**



- 1: Power supply
  Voltage (Vcc): DC 24 V or less
- 2: Load
  DC 500 mA or less
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).



- **Optional part**

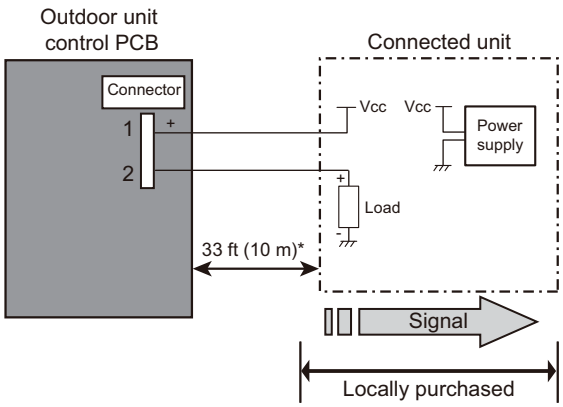
Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External output wire 

OUTDOOR UNIT
AOU42-48RGLX

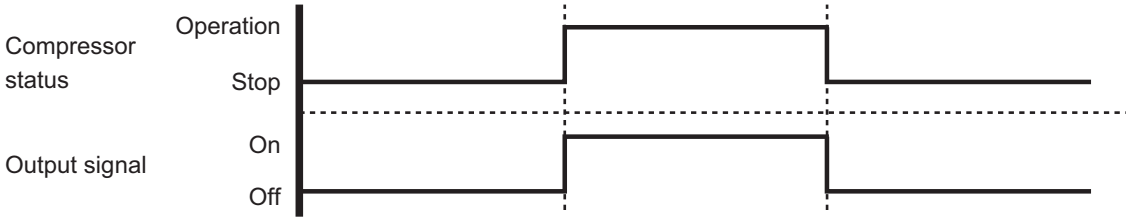
■ Compressor status output

Signal on compressor operation status is generated when the compressor is running.

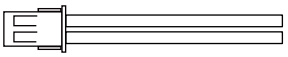
- **Circuit diagram example**



- 1: Power supply
  Voltage (Vcc): DC 24 V or less
- 2: Load
  DC 500 mA or less
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External output wire 

OUTDOOR UNIT
AOU42-48RGLX

13. Function settings

Perform appropriate function setting locally according to the installation environment.

NOTE: Incorrect settings can cause a product malfunction.

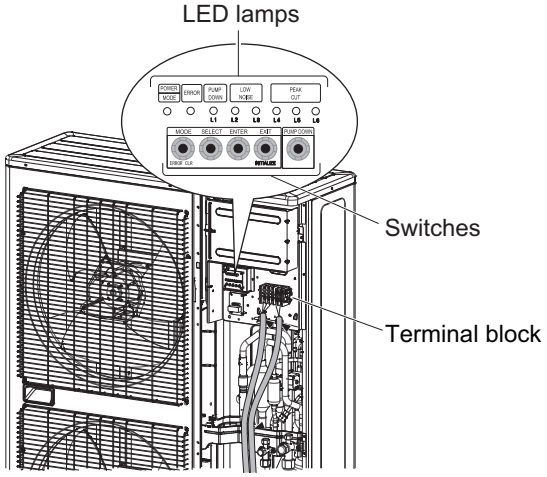
⚠ CAUTION

- Before setting up the switch buttons, discharge the static electricity from your body.
- Never touch the terminals or the patterns on the parts that are mounted on the PCB.

13-1. Local setting switch buttons

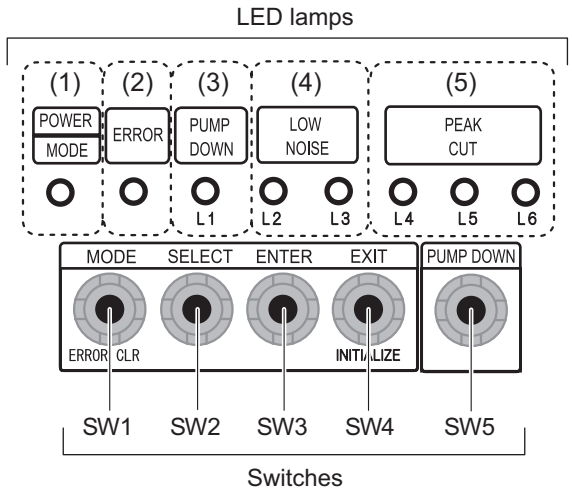
■ Control PCB and switch location

Control PCB of the outdoor unit is located as shown in the following figure.



OUTDOOR UNIT
AOU42-48RGLX

■ Switches and the functions



LED lamp			Function or operation method
(1)	POWER/MODE	Green	Lights on while power on. Blinks to show the local setting on the outdoor unit or the error code.
(2)	ERROR	Red	Blinks during error operation.
(3)	PUMP DOWN (L1)	Orange	Lights on during pump down operation.
(4)	LOW NOISE MODE (L2 and L3)	Orange	Lights on during “Low noise mode” when local setting is activated. (Light pattern of L2 and L3 indicates the low noise level.)
(5)	PEAK CUT MODE (L4, L5, and L6)	Orange	Lights on during “Peak cut mode” when local setting is activated. (Light pattern of L4, L5, and L6 indicates the peak cut level.)

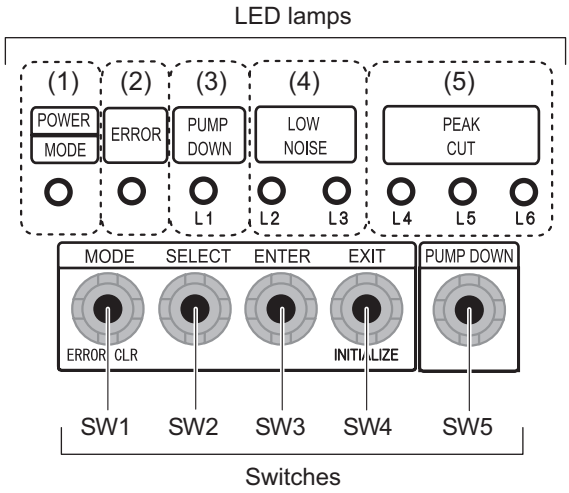
Switch		Function or operation method
SW1	MODE	Switches between “Local setting” and “Error code display”.
SW2	SELECT	Switches between the individual “Local settings” and the “Error code displays”.
SW3	ENTER	Switches between the individual “Local settings” and the “Error code displays”.
SW4	EXIT	Returns to “Operation status display”.
SW5	PUMP DOWN	Starts the pump down operation.

OUTDOOR UNIT
AOU42-48RGLX

13-2. Local setting procedure

NOTE: Before performing the function setting, be sure to stop the operation of the air conditioner.

■ Low noise mode



1. Press the MODE switch button (SW1) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (SW3).

POWER / MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2)	LOW NOISE (L3)	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
Blinks (9 times)	○	○	○	○	○	○	○

Sign “ ○ ”: Lights off

3. Press the SELECT switch button (SW2), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

	LOW NOISE (L2)	LOW NOISE (L3)
LOW NOISE MODE	○	Blink

4. Press the ENTER switch button (SW3).

	LOW NOISE (L2)	LOW NOISE (L3)
LOW NOISE MOD E	○	●

Sign “ ●”: Lights on

5. Press the SELECT switch button (SW2), and adjust the LED lamps as shown below.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
MODE 1: Low	○	○	Blink
MODE 2: Lower	○	Blink	○

6. Press the ENTER switch button (SW3) and fix it.

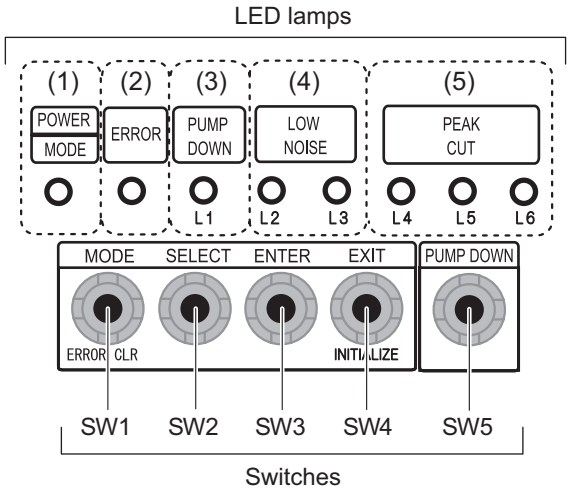
	PEAK CUT		
	(L4)	(L5)	(L6)
MODE 1: Low	○	○	●
MODE 2: Lower	○	●	○

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (SW4).

In case of missing how many times you pressed the SELECT and ENTER switch buttons:

1. To return to “Operation status display (Normal operation)”, press the EXIT switch button once.
2. Restart from the beginning of setting procedure.

■ Peak cut mode



1. Press the MODE switch button (SW1) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (SW3).

POWER / MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2)	LOW NOISE (L3)	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
Blinks (9 times)	○	○	○	○	○	○	○

Sign “ ○ ”: Lights off

3. Press the SELECT switch button (SW2), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

	LOW NOISE	
	(L2)	(L3)
PEAK CUT MOD E	Blink	○

4. Press the ENTER switch button (SW3).

	LOW NOISE	
	(L2)	(L3)
PEAK CUT MODE	●	○

Sign “ ● ”: Lights on

OUTDOOR UNIT
AOU42-48RGLX

OUTDOOR UNIT
AOU42-48RGLX

5. Press the SELECT switch button (SW2), and adjust the LED lamps as shown below.

	PEAK CUT		
	(L4)	(L5)	(L6)
0 % of rated input ratio	○	○	Blink
50 % of rated input ratio	○	Blink	○
75 % of rated input ratio	○	Blink	Blink
100 % of rated input ratio	Blink	○	○

6. Press the ENTER switch button (SW3) and fix it.

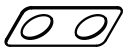
	PEAK CUT		
	(L4)	(L5)	(L6)
0 % of rated input ratio	○	○	●
50 % of rated input ratio	○	●	○
75 % of rated input ratio	○	●	●
100 % of rated input ratio	●	○	○

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (SW4).

NOTE: When pressed number is lost during setting, you must redo the setting procedure. Return to “Operation status display (Normal operation)” by pressing the EXIT switch button once, and restart from the beginning of the setting procedure.

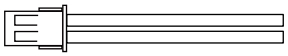
14. Accessories

14-1. Models: AOU42RGLX and AOU48RGLX

Part name	Exterior	Qty	Part name	Exterior	Qty
Installation manual		1	Drain cap		5
Drain pipe		1	Conduit plate		1

OUTDOOR UNIT
AOU42-48RGLX

15. Optional parts

Exterior	Part name	Model name	Summary
	External Connect Kit	UTY-XWZXZ3	Use to operate the external input and output functions of outdoor unit.

OUTDOOR UNIT
AOU42-48RGLX