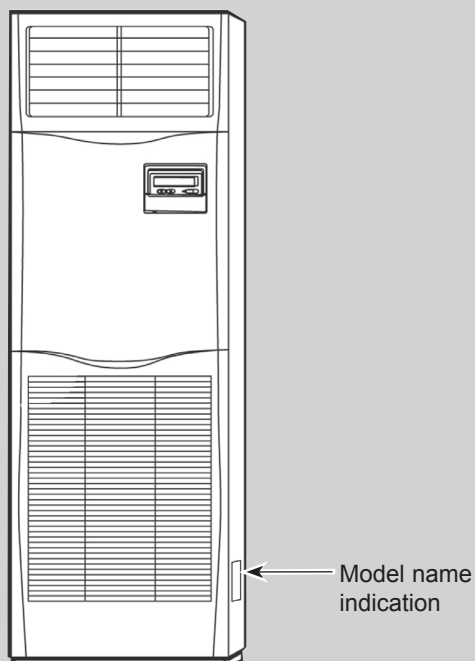


SERVICE MANUAL

Series PSY **Floor Standing** **R410A**

Indoor unit [Model names]	[Service Ref.]
PSY-SP30KA	PSY-SP30KA(-NE/-VN)
PSY-SP36KA	PSY-SP36KA(-NE/-VN)
PSY-SP42KA	PSY-SP42KA(-NE/-VN)
PSY-SP48KA	PSY-SP48KA(-NE/-VN)



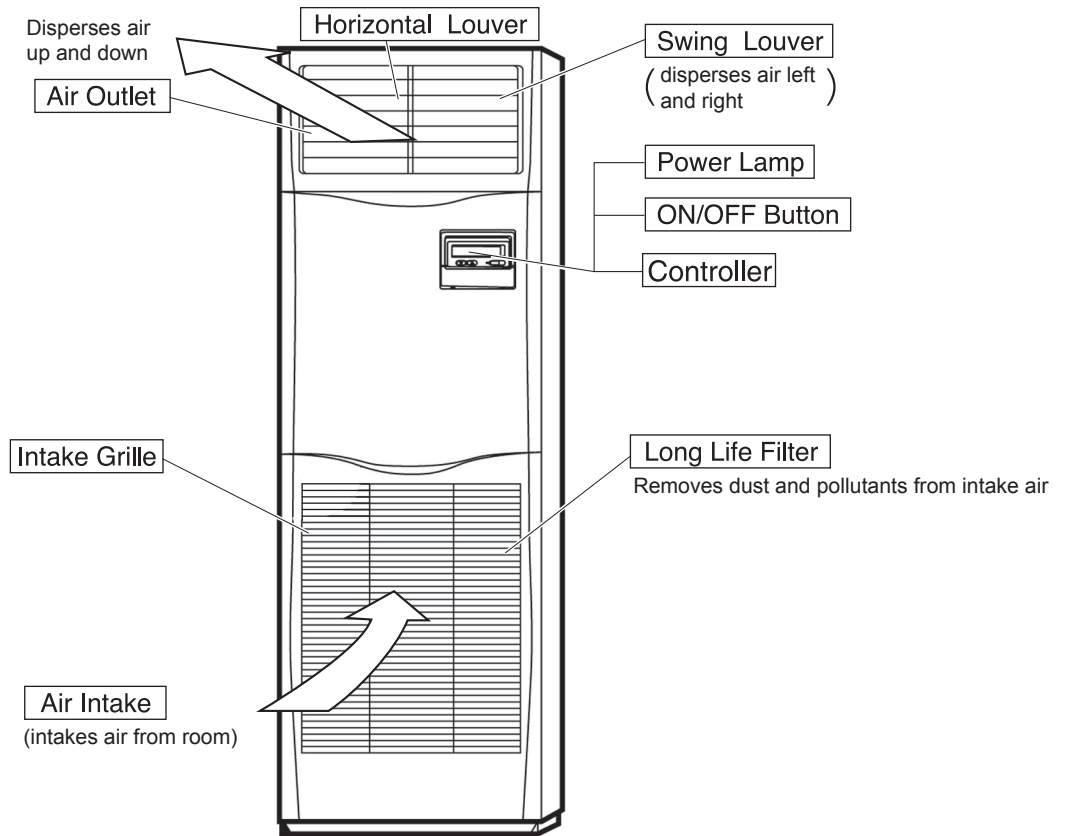
REFERENCE MANUAL

OUTDOOR UNIT'S SERVICE MANUAL

Service Ref.	Service Manual No.
SUY-SA30VA2.TH	—
PUY-SP36/42/48VKA2.TH PUY-SP36/42/48YKA2.TH	—

PART NAMES AND FUNCTIONS

● Indoor Unit



SPECIFICATIONS

Service Ref.			PSY-SP30KA(-NE/-VN)	
INDOOR UNIT	Mode		Cooling	
	Power supply(phase, cycle, voltage)		1-phase 220/230/240V 50Hz, 1-phase 220/230V 60Hz	
	Input	kW	0.11	
	Running current	A	0.71	
	External finish		Munsell 0.70Y 8.59/0.97	
	Heat exchanger		Plate fin coil	
	Fan	Fan(drive) × No.		Centrifugal (direct) × 1
		Fan motor output	kW	0.16
		Airflow(Low-Middle-High)	m ³ /min(CFM)	25-28-30(893-1,000-1,071)
		External static pressure	Pa(mmAq)	0(direct blow)
	Booster heater		kW	—
	Operation control & Thermostat		Remote controller & built-in	
	Noise level(Low-Middle-High)		dB	45-49-51
	Unit drain pipe O.D.		mm(in.)	20(13/16)
	Dimensions	W	mm(in.)	600(23-5/8)
D		mm(in.)	360(14-11/64)	
H		mm(in.)	1,900(74-13/16)	
Weight		kg(lbs)	46(102)	

Service Ref.			PSY-SP36KA(-NE/-VN)	
INDOOR UNIT	Mode		Cooling	
	Power supply(phase, cycle, voltage)		1-phase 220/230/240V 50Hz, 1-phase 220/230V 60Hz	
	Input	kW	0.11	
	Running current	A	0.73	
	External finish		Munsell 0.70Y 8.59/0.97	
	Heat exchanger		Plate fin coil	
	Fan	Fan(drive) × No.		Centrifugal (direct) × 1
		Fan motor output	kW	0.16
		Airflow(Low-Middle-High)	m ³ /min(CFM)	25-28-31(893-1,000-1,107)
		External static pressure	Pa(mmAq)	0(direct blow)
	Booster heater		kW	—
	Operation control & Thermostat		Remote controller & built-in	
	Noise level(Low-Middle-High)		dB	45-49-51
	Unit drain pipe O.D.		mm(in.)	20(13/16)
	Dimensions	W	mm(in.)	600(23-5/8)
D		mm(in.)	360(14-11/64)	
H		mm(in.)	1,900(74-13/16)	
Weight		kg(lbs)	48(106)	

Service Ref.			PSY-SP42KA(-NE/-VN)	
INDOOR UNIT	Mode		Cooling	
	Power supply(phase, cycle, voltage)		1-phase 220/230/240V 50Hz, 1-phase 220/230V 60Hz	
	Input	kW	0.11	
	Running current	A	0.73	
	External finish		Munsell 0.70Y 8.59/0.97	
	Heat exchanger		Plate fin coil	
	Fan	Fan(drive) × No.		Centrifugal (direct) × 1
		Fan motor output	kW	0.16
		Airflow(Low-Middle-High)	m ³ /min(CFM)	25-28-31(893-1,000-1,107)
		External static pressure	Pa(mmAq)	0(direct blow)
	Booster heater		kW	—
	Operation control & Thermostat		Remote controller & built-in	
	Noise level(Low-Middle-High)		dB	45-49-51
	Unit drain pipe O.D.		mm(in.)	20(13/16)
	Dimensions	W	mm(in.)	600(23-5/8)
D		mm(in.)	360(14-11/64)	
H		mm(in.)	1,900(74-13/16)	
Weight		kg(lbs)	48(106)	

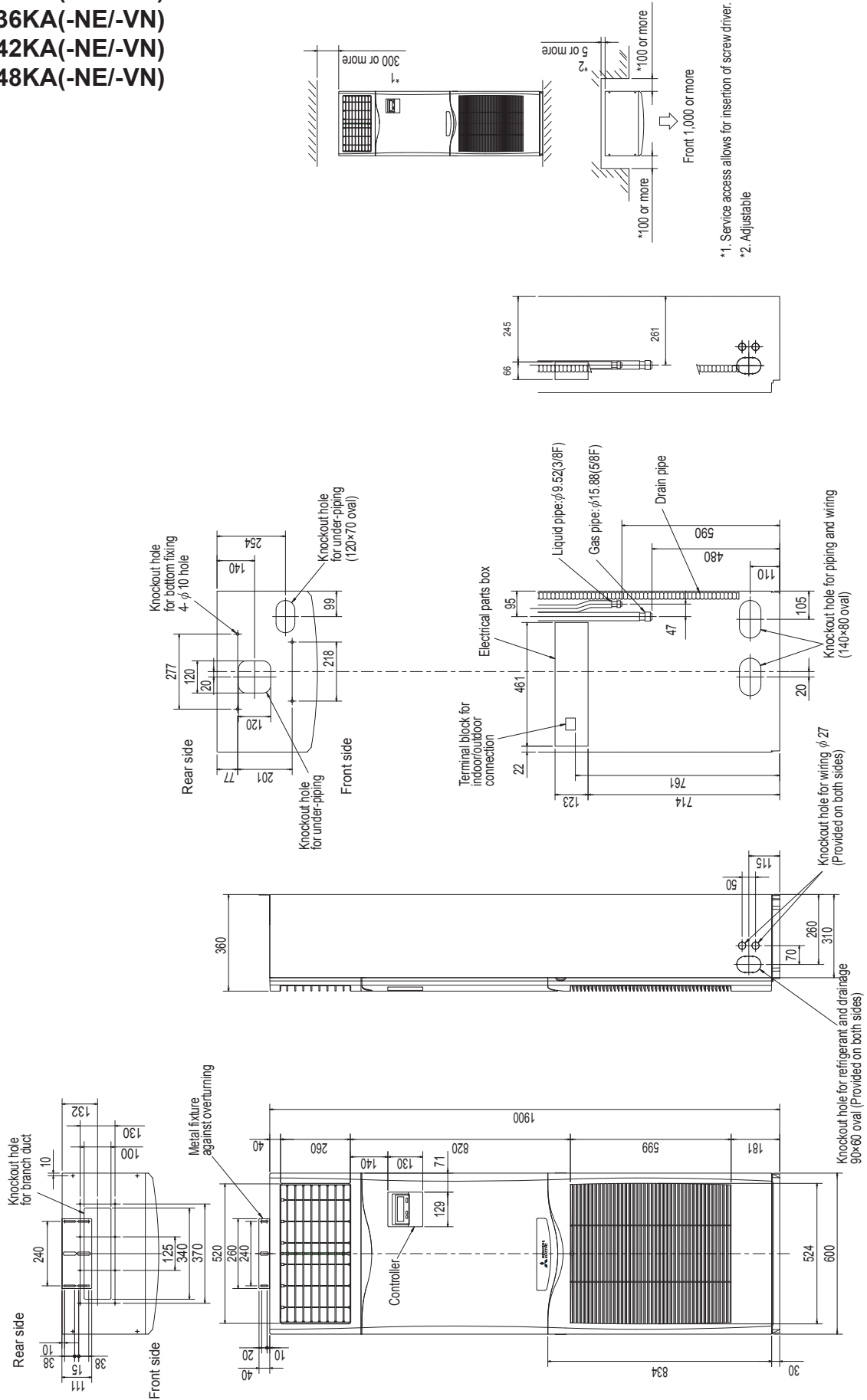


Service Ref.			PSY-SP48KA(-NE/-VN)	
INDOOR UNIT	Mode		Cooling	
	Power supply(phase, cycle, voltage)		1-phase 220/230/240V 50Hz, 1-phase 220/230V 60Hz	
	Input	kW	0.11	
	Running current	A	0.73	
	External finish		Munsell 0.70Y 8.59/0.97	
	Heat exchanger		Plate fin coil	
	Fan	Fan(drive) x No.		Centrifugal (direct) × 1
		Fan motor output	kW	0.16
		Airflow(Low-Middle-High)	m ³ /min(CFM)	25-28-31(893-1,000-1,107)
		External static pressure	Pa(mmAq)	0(direct blow)
	Booster heater	kW	—	
	Operation control & Thermostat		Remote controller & built-in	
	Noise level(Low-Middle-High)		45-49-51	
	Unit drain pipe O.D.		20(13/16)	
	Dimensions	W	mm(in.)	600(23-5/8)
		D	mm(in.)	360(14-11/64)
		H	mm(in.)	1,900(74-13/16)
Weight		kg(lbs)	48(106)	

OUTLINES AND DIMENSIONS

PSY-SP30KA(-NE/-VN)
PSY-SP36KA(-NE/-VN)
PSY-SP42KA(-NE/-VN)
PSY-SP48KA(-NE/-VN)

Unit : mm



*1. Service access allows for insertion of screw driver.
 *2. Adjustable

WIRING DIAGRAM

PSY-SP30KA(-NE/-VN)
PSY-SP36KA(-NE/-VN)
PSY-SP42KA(-NE/-VN)
PSY-SP48KA(-NE/-VN)

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	I.B SW1	SWITCH <MODEL SELECTION>*See Table 1.	TB4	TERMINAL BLOCK <INDOOR/OUTDOOR CONNECTING LINE>
	FUSE FUSE (6.3A)	SW2	SWITCH <CAPACITY CODE>*See Table 2.	TH1	ROOM TEMPERATURE THERMISTOR <0°C/15kΩ, 25°C/5.4kΩ DETECT>
	CN2L CONNECTOR<LOSSNAY>	SWE	SWITCH<EMERGENCY OPERATION>	TH2	PIPE TEMPERATURE THERMISTOR/LIQUID <0°C/15kΩ, 25°C/5.4kΩ DETECT>
	CN32 CONNECTOR<REMOTE SWITCH>	X1	RELAY<LOUVER>	TH5	COND./EVA. TEMPERATURE THERMISTOR <0°C/15kΩ, 25°C/5.4kΩ DETECT>
	CN41 CONNECTOR<HA TERMINAL-A>	R.B	WIRED REMOTE CONTROLLER BOARD		
	CN51 CONNECTOR<CENTRALLY CONTROL>	TB6	TERMINAL BLOCK<REMOTE CONTROLLER TRANSMISSION LINE>		
	LED1 POWER SUPPLY<I.B>	DCL	REACTOR		
	LED2 POWER SUPPLY<R.B>	MF	FAN MOTOR		
	LED3 TRANSMISSION<INDOOR-OUTDOOR>	ML	LOUVER MOTOR		

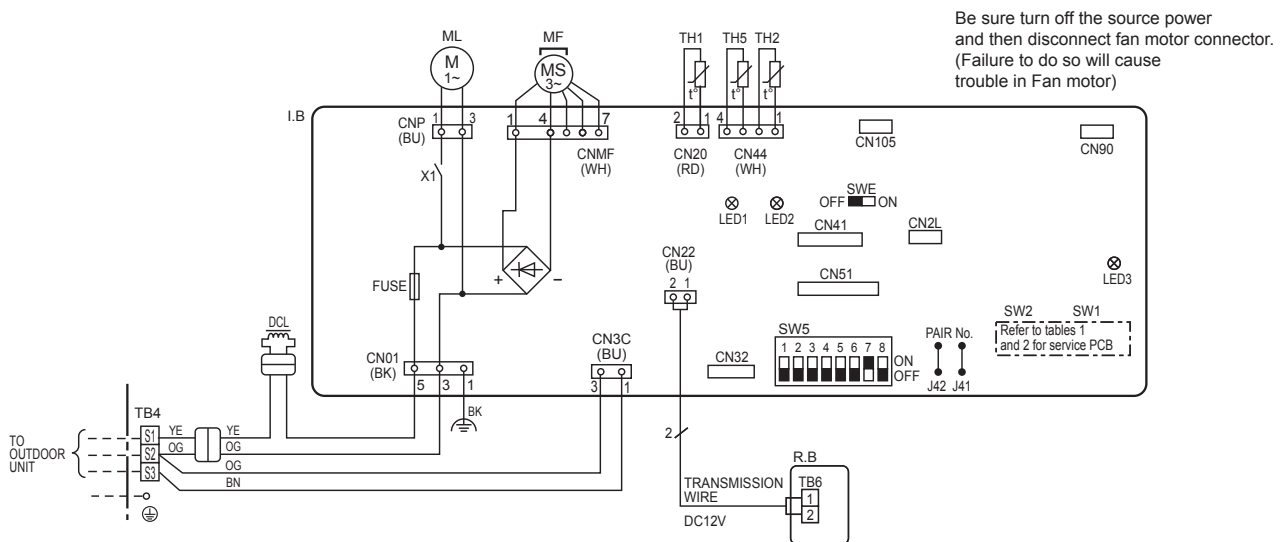


Table 1

SW1																
MODELS	Manufacture/Service															
PSY-SP.KA	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td>■</td><td>■</td><td>■</td><td>■</td><td>■</td> </tr> <tr> <td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	■	■	■	■	■	ON	OFF	OFF	OFF	OFF
1	2	3	4	5												
■	■	■	■	■												
ON	OFF	OFF	OFF	OFF												

Table 2

SW2																																	
MODELS	Manufacture/Service	MODELS	Manufacture/Service																														
PSY-SP30KA	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td>■</td><td>■</td><td>■</td><td>■</td><td>■</td> </tr> <tr> <td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	■	■	■	■	■	ON	OFF	OFF	OFF	OFF	PSY-SP42KA	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td>■</td><td>■</td><td>■</td><td>■</td><td>■</td> </tr> <tr> <td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	■	■	■	■	■	ON	OFF	OFF	OFF	OFF
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PSY-SP36KA	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td>■</td><td>■</td><td>■</td><td>■</td><td>■</td> </tr> <tr> <td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	■	■	■	■	■	ON	OFF	OFF	OFF	OFF	PSY-SP48KA	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td>■</td><td>■</td><td>■</td><td>■</td><td>■</td> </tr> <tr> <td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	■	■	■	■	■	ON	OFF	OFF	OFF	OFF
1	2	3	4	5																													
■	■	■	■	■																													
ON	OFF	OFF	OFF	OFF																													
1	2	3	4	5																													
■	■	■	■	■																													
ON	OFF	OFF	OFF	OFF																													

The black square (■) indicates a switch position.

[Emergency operation procedure]

- When the wired remote control or the indoor unit microcomputer has failed, but all other components work properly, if you set the switch (SWE) on the indoor control panel ON, the indoor unit will begin Emergency Operation. When Emergency Operation is activated, the indoor unit operates as follows:
 - Indoor fan is running at high speed.

Note on the wireless remote control: When the remote control does not function, it is possible to activate Emergency Operation by using the indoor unit emergency operation switch (SW1, SW2) of the wireless signal receiver board). However, if the indoor unit microcomputer has failed, it is necessary to proceed with points 2 and 3 below as in the case of the wired remote control.
- When you activate emergency operation of the cooling or heating, you have to set the switch (SWE) on the indoor control board and activate emergency operation of the outdoor unit. For details on how to activate emergency operation of the outdoor unit, refer to the outdoor unit wiring diagram.
- Before you activate emergency operation, check the following points:
 - Emergency operation cannot be activated when:
 - The outdoor unit malfunctions.
 - The indoor fan malfunctions.
 - Emergency operation becomes continuous only by switching the power source on/off. ON/OFF on the remote control or temperature control etc, dose not function.
 - Avoid operating for a long time when the outdoor unit begins defrosting while emergency operation of the heating is activated, because it will start to blow cold air.
 - Emergency cooling should be limited to 10 hours maximum (The indoor unit heat exchanger may freeze).
 - After emergency operation has been deactivated, set the switches etc. to their original positions.

REFRIGERANT SYSTEM DIAGRAM

PSY-SP30KA(-NE/-VN)
PSY-SP36KA(-NE/-VN)
PSY-SP42KA(-NE/-VN)
PSY-SP48KA(-NE/-VN)

