TOYOTOMI

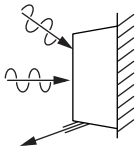
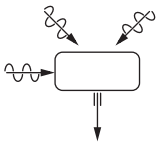
SERVICE MANUAL

ROOM AIR CONDITIONER

TAN/TAG-A28FWIS
TAN/TAG-A32FWIS

CONTENTS

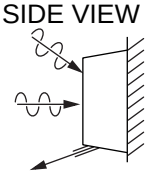
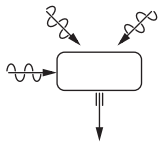
SPECIFICATION

		Unit	INDOOR	OUTDOOR
			TAN-A28FWIS	TAG-A28FWIS
Cooling Capacity		BTU/h	9,000(5,700-10,000)	–
Heating Capacity		BTU/h	11,000(5,700-12,500)	–
Moisture Removal		L/h	1.6	–
Power source		phase	Single	
		V	230	
		Hz	50	
Airflow Method		OUTLET INTAKE	SIDE VIEW 	TOP VIEW 
Air circulation (at High)		m^3/min	Cooling ; 8.4 Heating ; 8.7	–
Electrical Data	Input	W	Cooling ; 780 Heating ; 860	–
	Running Current	A	Cooling ; 3.8 Heating ; 4.2	–
	Starting Current	A	4.2	–
Piping Connection Port (Flare piping)		inch	L ; Half Union 1/4''	L ; 2-way valve 1/4''
		inch	G ; Half Union 3/8''	G ; 3-way valve 3/8''
Pipe Size (Flare piping)		inch	L (liquid side) ; 1/4''	L (liquid side) ; 1/4''
		inch	G (gas side) ; 3/8''	G (gas side) ; 3/8''
Drain hose	Inner diameter	mm	14	–
	Length	m	0.6	–
Power Cord	Length	m	1.4	–
	Number of core-wire		core-wire/ 1 mm^2	–
Dimensions	Height	mm	265	545
	Width	mm	795	710
	Depth	mm	182	255
Net Weight		kg	8.3	28.0

SPECIFICATION

		Unit	INDOOR	OUTDOOR
			TAN-A28FWIS	TAG-A28FWIS
Air Circulation	Type		Cross-flow Fan	Propeller Fan
	Motor Type		Induction (4-pole)	Induction (6-pole)
	Rated Output	W	20	20
Heat Exchanger			Plate fin configuration,forced draft 19.5FPI	19.5 FPI
Refrigerant Control Device			–	Capillary Tube
Refrigerant (R410A)		g (oz)	–	860(30.3)
Thermostat			Electronic Control	–
Timer			Real time dual ON/OFF 7-hour OFF	–
Air Filter			Mold-proof	–
Parts Provided			1 Mounting plate 2 Remote controller 3 Battery (2 pcs.) 4 Remote controller holder 5 Screw cap (2 pcs.) 6 Drain elbow 7 Vibration proof rubber (4 pcs.) 8 Air clean filter (2 pcs.) (Bamboo Charcoal/Photo-catalytic anti-odor filters)	

★ Specifications are subject to change without notice.

		Unit	INDOOR	OUTDOOR
			TAN-A32FWIS	TAG-A32FWIS
Cooling Capacity		BTU/h	11,000(5,700-12,000)	–
Heating Capacity		BTU/h	13,500(5,700-14,500)	–
Moisture Removal		L/h	1.7	–
Power source		phase	Single	
		V	230	
		Hz	50	
Airflow Method		OUTLET INTAKE	SIDE VIEW 	TOP VIEW 
Air circulation (at High)		m^3/min	Cooling ; 9.8 Heating ; 10.3	–
Electrical Data	Input	W	Cooling ; 1,000 Heating ; 1,080	–
	Running Current	A	Cooling ; 4.8 Heating ; 5.2	–
	Starting Current	A	5.2	–
Piping Connection Port (Flare piping)		inch	L ; Half Union 1/4"	L ; 2-way valve 1/4"
		inch	G ; Half Union 3/8"	G ; 3-way valve 3/8"
Pipe Size (Flare piping)		inch	L (liquid side) ; 1/4"	L (liquid side) ; 1/4"
		inch	G (gas side) ; 3/8"	G (gas side) ; 3/8"
Drain hose	Inner diameter	mm	14	–
	Length	m	0.6	–
Power Cord	Length	m	1.4	–
	Number of core-wire		core-wire/ 1 mm^2	–
Dimensions	Height	mm	265	545
	Width	mm	795	710
	Depth	mm	182	255
Net Weight		kg	8.3	29.5

SPECIFICATION

		Unit	INDOOR	OUTDOOR
			TAN-A32FWIS	TAG-A32FWIS
Air Circulation	Type		Cross-flow Fan	Propeller Fan
	Motor Type		Induction (4-pole)	Induction (6-pole)
	Rated Output	W	20	20
Heat Exchanger			Plate fin configuration,forced draft	
			19.5FPI	16.9 FPI
Refrigerant Control Device			–	Capillary Tube
Refrigerant (R410A)		g (oz)	–	1,100(38.8)
Thermostat			Electronic Control	–
Timer			Real time dual ON/OFF 7-hour OFF	–
Air Filter			Mold-proof	–
Parts Provided			1 Mounting plate 2 Remote controller 3 Battery (2 pcs.) 4 Remote controller holder 5 Screw cap (2 pcs.) 6 Drain elbow 7 Vibration proof rubber (4 pcs.) 8 Air clean filter (2 pcs.) (Bamboo Charcoal/Photo-catalytic anti-odor filters)	

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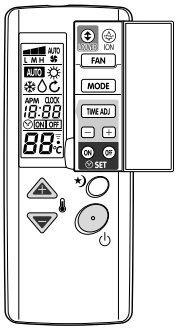
REMOTE-CONTROL TRANSMITTER



ON/OFF

Operation mode selection
COOL
DRY
HEAT
AUTOMATIC

Air flow selection
AUTOMATIC
HIGH
MEDIUM
LOW

Negative Ion

Room temperature setting
16℃ ～ 30℃

Timer operation selection
CONTINUOUS operation
OFF
ON
Sleep

Timer / time setting
Operation stops at the set time
(OFF timer)
Operation starts at the set time
(ON timer)
0.5 ～ 7.0hours(Sleep timer)

Air flow direction control
Auto angle selection
Auto swing mode
Manual mode

INDOOR UNIT

Sensing the room temperature
Room temperature sensor (thermistor)

Time delay safety control
Restarting is inhibited for approximately 3 minutes.

Indoor fan speed control
High, Med, Low

Operation indication lamps (LED)
ELECT ☼ (GREEN or RED)
Lights up green during operation.
Lights up red when negative ions are generated.
TIMER ☼ (YELLOW)
Timer in operation
OPERATE ☼ (GREEN)
Outdoor unit operate

Dry operation mode
Automatic fan speed control

Room temperature control
Maintains the room temperature in accordance with the setting temperature.

Deice (defrost) control
Deicing operation automatically starts when the heating efficiency is declined by the ice formed in the outdoor unit.
After deicing operation, heating operation automatically starts with " Hot start function."

OUTDOOR UNIT

Hot-start control (heating)

The indoor fan stops until the evaporator piping temperature will be reached.

Anti-freezing control for the evaporator

Compressor will be stopped when the evapolator' s piping temperature is below 2℃ for one minute.
Compressor will be restarted when the evaporator' s piping temperature is above 2℃.

Airflow direction control

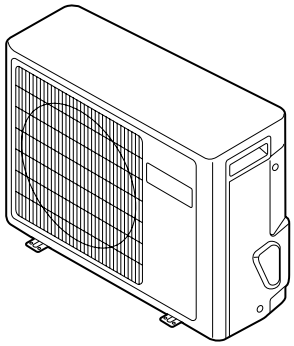
Automatic airflow direction control
The louver automatically swings up and down (cooling, dry)...horizontal and 35° downward.
The louver is set at 70° downward during heating operation.

Auto recovery function

If there is any power failure during operation, operation status before power failure is memorized.
3 ～ 4 minutes after power recovery, the unit restarts automatically with previous operation status memorized.
(3 ～ 4 minutes is protective time for compressor.)

Attention

Because of Auto recovery function, if shutting off the power supply during operation, the unit may restart irrespective your intention when turning on the power supply next time.
If the unit is not to be used for a long time, shut off the power supply after terminating all operation with remote controller.



Inverter control

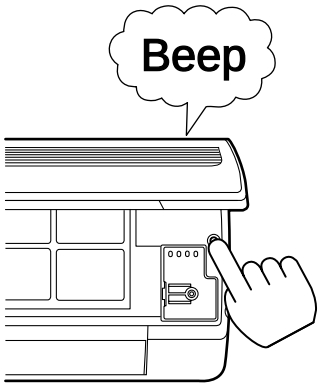
Inverter control reduce the ON/OF times of compressor,so can keep the room temperature changeless during operation.

Electricity consumption

Inverter control can operate with less electricity consumption than normal air conditioner.

EMERGENCY AND TEST OPERATION

Emergency Operation

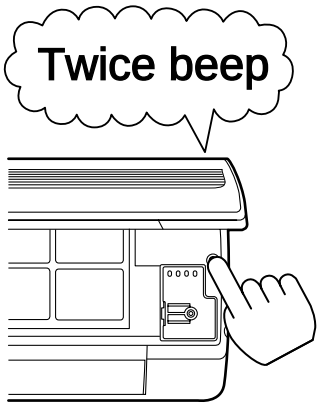


- Use this operation only when the remote controller is out of order or lost.
- When the emergency operation switch is pressed, beep starts once, which means the start of this operation.
- In this operation, the system automatically selects the operation modes, cooling (or heating when available) according to the room temperature, as follows.

Temperature	Operation mode	Designated temperature	Timer mode	Air flow
ABOVE 23℃	COOLING	26℃	CONTINUOUS	AUTOMATIC
BELOW 23℃	HEATING	23℃	CONTINUOUS	AUTOMATIC

- It is not possible to operate in dry mode.

Test Operation



Test operation switch is same as emergency one.

- Use this operation only for testing the performance of the machine in the condition where the room temperature is less than 16℃.
- Continue to press the test operation switch for more than 5 seconds. After you hear twice beep, release your finger from the switch : the cooling operation starts with the air flow speed " HI."
- If the test operation switch is pressed more than 10 seconds, it doesn' t work.
- After 30 minutes, test operation ends automatically.

HOW TO RELEASE EMERGENCY AND TEST OPERATION

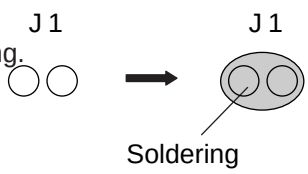
- In case of releasing during those operations, you can either push emergency operation switch once more or apply operation using remote control.

  You will hear a beep sound and emergency/ test operation is released.
- If you release the operation by remote control, operation will continue as setting of the remote control automatically.

INTERFERENCE PREVENTION OF SIGNALS FROM THE REMOTE CONTROLLER

When two indoor units used in the same room, interference of the signals may happen. To avoid this, alternative signal model B can be selected by the following. (Ex-factory setting is mode A)

- Remote controller side : Have " J 1" on the PC board short-circuited by soldering.
- Indoor unit side : Cut " R13" on the PC board.



TIMER OPERATION

ON Timer operation

- Press the ON/OFF switch. Right after replacing new batteries, set the present time in advance.
- Set the " ON Time" : Press the " TIME ADJ " button twice.
  Adjust the time with the "⊞ ,⊟ " button.
  Press the " TIME ADJ " button twice.The setting of " ON Time" is completed and the present time appears on the LCD.
- Set the " ON Timer" : Press the Timer fixing button " ON" .

OFF Timer operation

- Press the ON/OFF switch. Right after replacing new batteries, set the present time in advance.
- Set the " OFF Time" : Press the " TIME ADJ " button 3 times.
  Adjust the time with the "⊞ ,⊟ " button.
  Press the " TIME ADJ " button once.The setting of " OFF Time" is completed and the present time appears on the LCD.
- Set the " OFF Timer" : Press the Timer fixing button " OFF" .

Sleep Timer operation

- Press the " SLEEP" button during the operation.
- Set the operating period by pressing the " SLEEP" button until the period designated appears on the LCD.

Timer Cancellation

- ON/OFF Timer : Press the Timer fixing button " ON" (On Timer) and/or " OFF" (Off Timer) once again.
- Sleep Timer : Press the " SLEEP" button until the operating period on the LCD disappears.

AIRFLOW DIRECTION CONTROL

Vertical adjustment

When ON/OFF switch is pressed, the vertical louver will move to the adequate positions for each operation automatically.

Swing of air flow

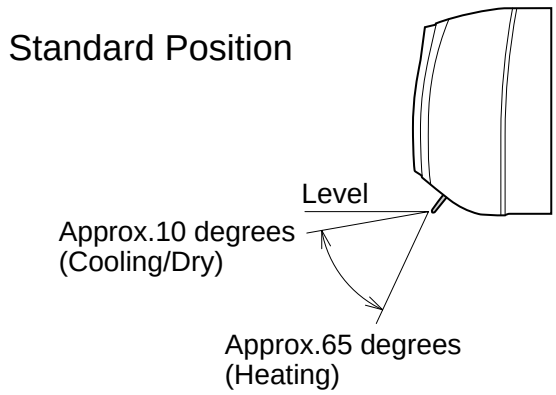
If air flow direction switch is pressed once, the vertical louver will move within the range of figures.

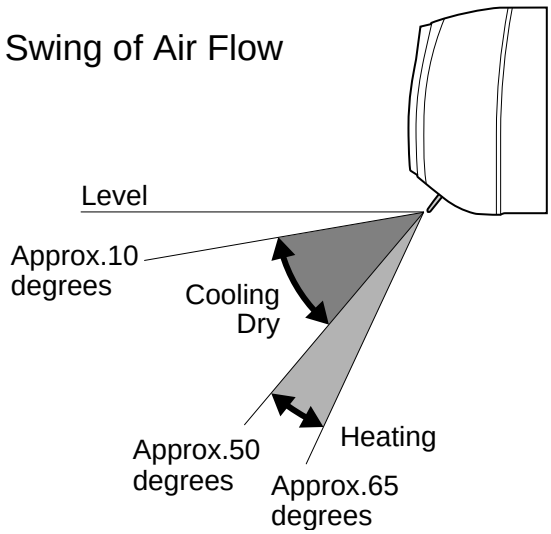
Fixing the flow direction

If air flow direction switch is pressed again, the vertical louver will be fixed and that position is memorized. From the next operation the louver will be set at previous position automatically.

Notes :

- In Swing Mode, the louver automatically moves up and down within the certain range, as the illustration below.
- There is two different ranges of louver swinging; one is of cooling & dry mode operation and the other is of heating operation.



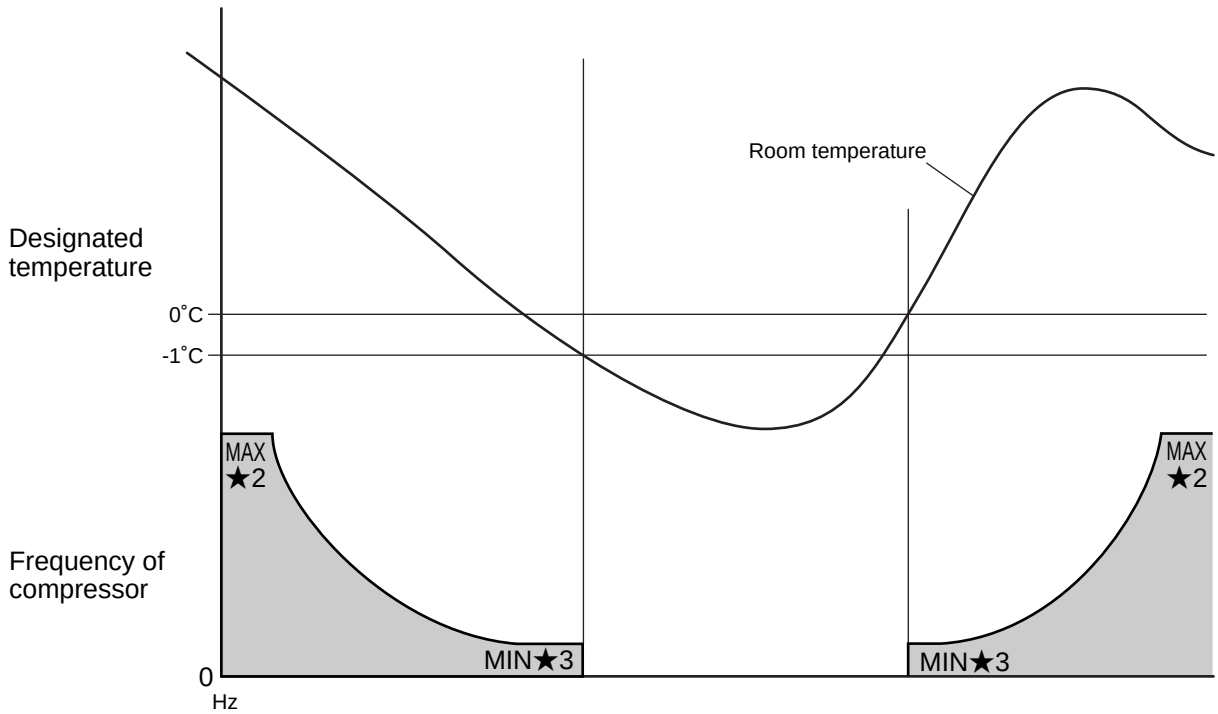


TIME DELAY SAFETY CONTROL FUNCTION - FOR PROTECTION OF COMPRESSOR

- Compressor will not restart, in any operation modes, for 3 minutes after its stop.
- Compressor does not stop during the first 6 minutes of its operation even if the room temperature reaches to the designated temperature, except changing setting temperature.

COOLING MODE OPERATION

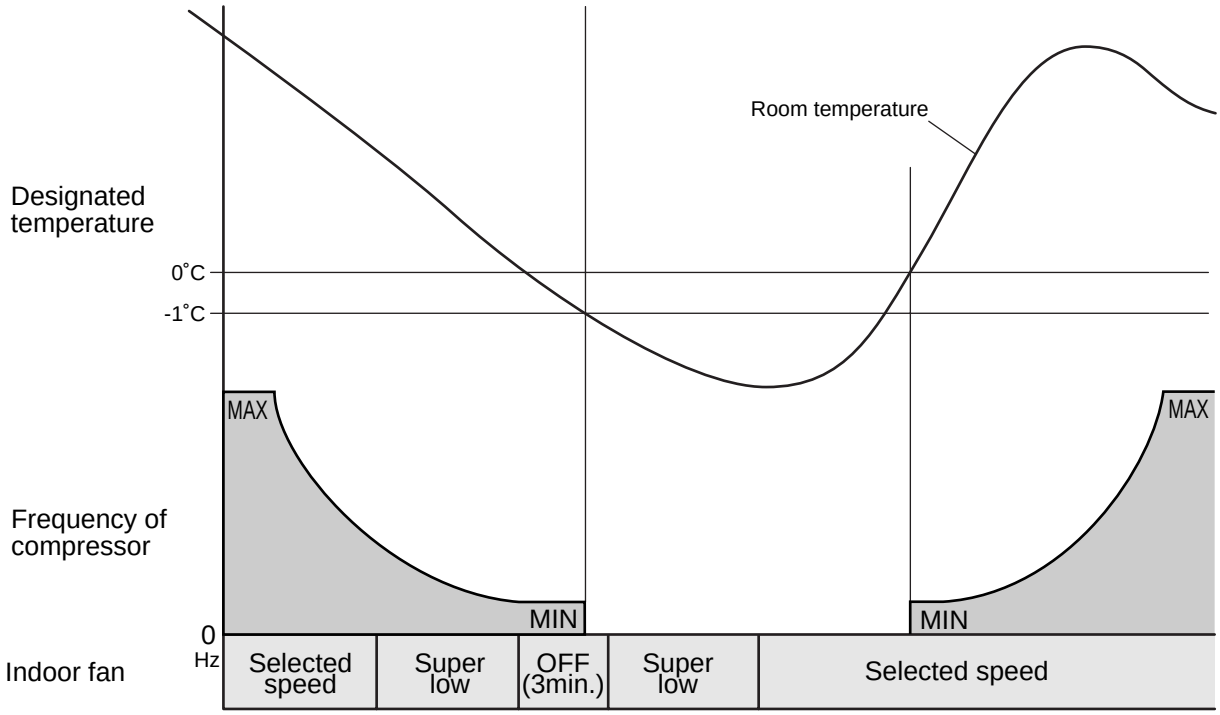
- The compressor will stop when operational frequency reached the minimum frequency and that condition has been kept for 6 minutes and the room temperature becomes 1℃ lower than it was set.
- The compressor will re-start when room temperature becomes 0℃ higher than it was set.
- The operational frequency will be set every ★1 seconds of operation.
  The operational frequency setting will be calculated based on the deviation of the room temperature and the set temperature on one end and the deviation factor at the time of previous setting on another.



	★1	★2	★3
TAN/TAG-A28FWIS	40	56Hz	40Hz
TAN/TAG-A32FWIS	60	72Hz	40Hz

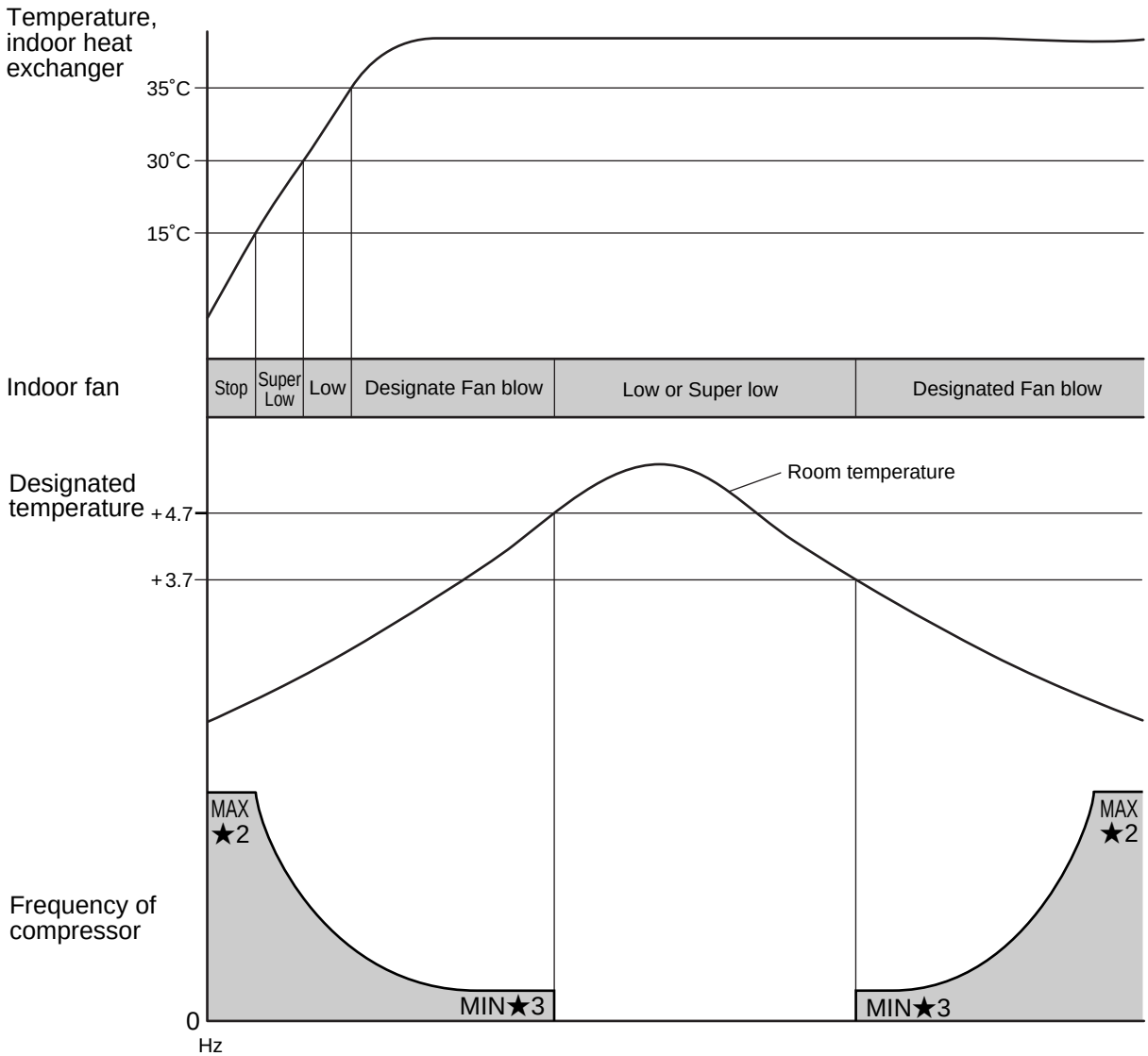
DRY MODE OPERATION

- Compressor stops when the room temperature fall to 0.3℃ lower than the designated temperature continuously for 2 minutes.
- Compressor restarts when room temperature rises to the designated temperature.
- The operating frequency of the compressor is determined according to the room temperature (see the diagram below).



HEATING MODE OPERATION

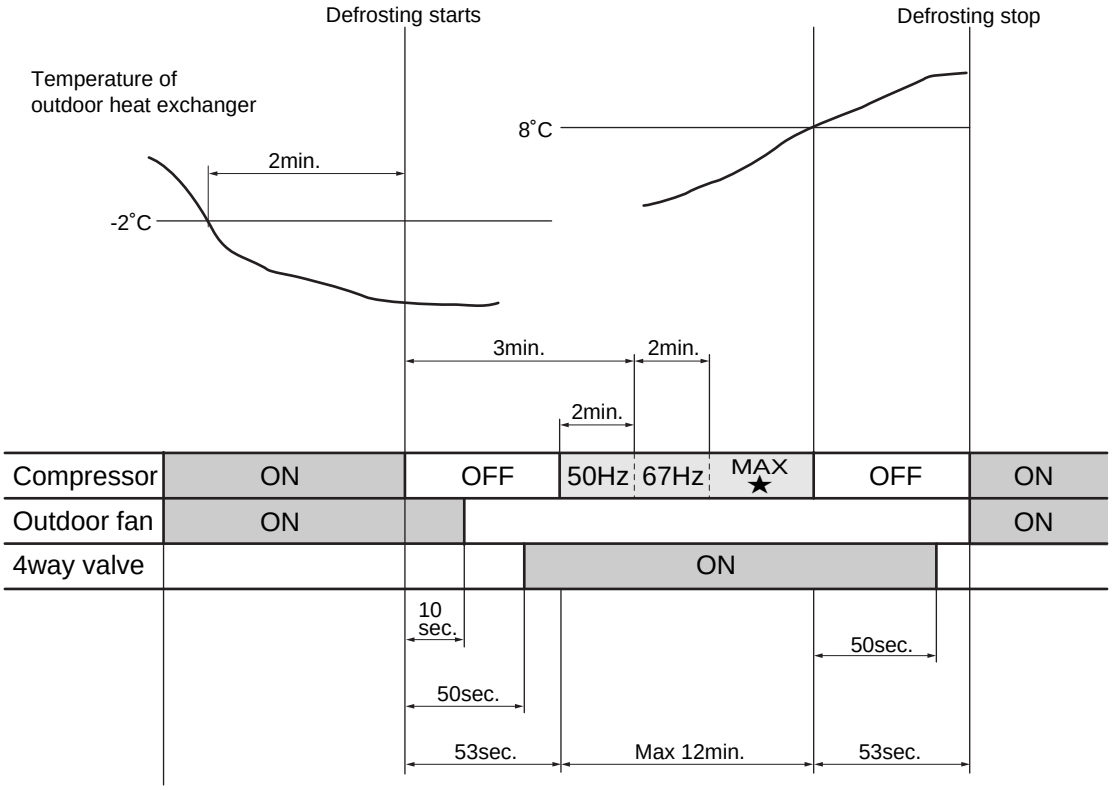
- The compressor will stop when operational frequency reached the minimum frequency and that condition has been kept for 6 minutes and the room temperature becomes 4.7℃ higher than it was set.
- The compressor will re-start when room temperature becomes 3.7℃ higher than it was set.
- The operational frequency will be set every ★1 seconds of operation.
  The operational frequency setting will be calculated based on the deviation of the room temperature and the set temperature on one end and the deviation factor at the time of previous setting on another.



	★1	★2	★3
TAN/TAG-A28FWIS	40	67.3Hz	40.0Hz
TAN/TAG-A32FWIS	60	80.0Hz	40.0Hz

DEFROSTING OPERATION(FOR OUTDOOR UNIT HEAT EXCHANGER)

- Defrosting operation is controlled by the temperature of outdoor heat exchanger sensed by the thermistor and the timer switch.
- Defrosting operation starts when the both of the following conditions are met at the same time.
  a) 40 minutes' of continuous run of the compressor after the start of heating operation or after the completion of previous defrosting operation.
  b) the temperature of the outdoor heat exchanger stays lower than -2℃ continuously for two minutes.
- Defrosting operating is called off if either of the following conditions is met.
  a) The temperature of outdoor heat exchanger rises to 8℃ while 4-way-valve is ON.
  b) 12 minutes has passed since compressor turned ON.



	★
TAN/TAG-A28FWIS	60Hz
TAN/TAG-A32FWIS	80Hz

FOR YOUR SAFETY USE

TAN : indoor unit TAG : outdoor unit

● For the safety and proper use and handling of the product, please read and follow the instructions carefully.

● The meaning of the marks below are as follows.

⚠ Danger	Improper use will cause the significant risk of death or serious injury of the user.
⚠ Warning	Improper use may cause the risk of death or serious injury of the user.

● Please refer the marks below.

⚠	Caution	⚠	High Voltage		Off the Plug	⊘	Prohibited
❗	Strict enforcement	⏚	Connect the earthing cable	♨	High Temperatare		

⚠ Danger

Check Point	● Be sure to take off the plug when servicing. It may cause the risk of electric shock.	
	● If leakage of refrigerant occur in the installation, ventilate a room. If the leaked refrigerant is exposed fire, poisonous gas may be generated.	❗
	●Boosting capacitor make the control box assembly (TAG unit) high voltage. Make the capacitor discharge enough when servicing. Otherwise will be struck by electricity.	⚠
	● **Never remodel appliance.** Use designated parts or accessories to avoid accidents.	❗
	● In case of gas leakage, not only refill the required amount of the refrigerant gas but also find out the gas leakage point and mend it. If the service work has to be suspended before mending the leakage points, be sure to collect the refrigerant gas in the outdoor unit by using pump then fasten the service ports to avoid any further leakage. Poisonous gas may be generated when the leaked refrigerant is exposed to fire.	❗
	● Clean the pins of the plug and insert the plug completely into the outlet.	❗
	● Be sure to change the cable if it is damaged. Do not use damaged cable.	❗
	● Do not use power supply cord extended or connected in halfway.	⊘

⚠ Warning

Check Point	● Be sure to put the units to earthing works.	⏚
	● Be sure to check the insulated resistance, more than 1MΩ.	

※ The combinations of three LED indicators (ON/Flashing/OFF) provide the self-diagnosis information as most of them shown in the trouble shooting guide.

[Note1] Discharge electricity of the capacitor by making short circuit firstly. Then check the capacitor by tester. Be sure to set up the tester for the measurement of bigger resistance.

INDICATION LAMP

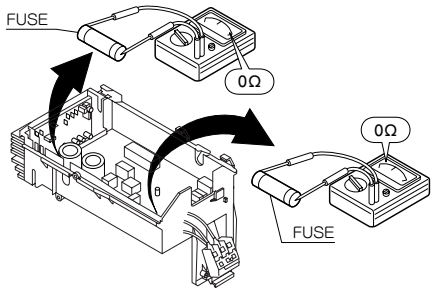
Micro computer self-diagnose the points of the troubles and inform it by the combination of the status (On, Flush, or Off) of three lamp indicators on the front panel of the indoor unit.

INDICATION LAMP POWER (green)	TIMER (yellow)	OPERATION (green)	ALARM INDICATION TIME	APPEARANCE, PORTION, PARTS SEEMED WRONG		METHOD OF CHECK (press the ON/OFF button of remote controller in case of reset)
OFF	OFF	OFF	–	–	POWER SUPPLY	check the plug inserted into the outlet and the power supply
					REMOTE CONTROL	emergency operation (display of remote controller is faint or not)
					TAN FUSE(3.15A)	check the electric continuity by tester
					TAN TERMINAL BLOCK	check the electric continuity by tester
					PCB (RECEIVER & DISPLAY)	emergency operation
TAN, TAG do not work at all					TAN PCB (MAIN)	other than described above
FLASHING	OFF	OFF	alarm indication appears immediately when press operation switch	short or open of sensor, temperature or incomplete insertion of connector	SENSOR, TEMP. ROOM	check the resistance by tester [see table 1]
FLASHING	ON	ON			SENSOR, TEMP. HEAT EXCHANGER	check the resistance by tester [see table 2]
ON	ON	FLASHING			SENSOR, TEMP. DEFROST	check the resistance by tester [see table 2]
FLASHING	ON	OFF			SENSOR, TEMP. DISCHARGE	check the resistance by tester [see table 3]
OFF	OFF	FLASHING	normal lamp indication turn alarm when something is wrong with TAN, TAG	error of transmission	MIS-WIRING (TAG-TAN CONNECTING CABLE) OR RARE CONTACT	check the wiring connection and rare contact
TAN, TAG don' t work at all, and after 20 sec., operation lamp is flashing (2 min. in case of power on)					CURRENT FUSE . (3A,12A) FUSING (ON THE TAG PCB (MAIN))	check the electric continuity by tester.[see fig. 1] (if it is no continuity, TAG PCB (main) should be replaced.)
FLASHING	OFF	FLASHING		CT disconnection	CUTTING OFF CT	change the TAG PCB (main)
OFF	FLASHING	OFF	once stop running with power lamp lighting when something is wrong with TAN, TAG, and start running again after 3 ～ 20 min. later after that in case of reoccurrence, alarm indication appears	sensor discharge operate because temperature of discharge tube beyond 120°C, or sensor discharge is bad quality	GAS LEAKAGE	check the point of leakage (discharge temperature rise in case of small leakage), measure the pressure of compressor during fixed operation (operation frequency 58 Hz)
30 ～ 40 min. later after compressor start, the yellow lamp is flashing and TAN, TAG stop running					VALVE, SERVICE IS CLOSED	check the valve by eyes
					PIPE	check by eyes
					SENSOR, TEMP. DISCHARGE	check the resistance by tester [see table 3]
FLASHING	FLASHING	OFF		protective action against excessive AC current detection	UNREASONABLE OPERATION UNDER OVERLOAD	check the place of installation (blockage of air inlet & outlet of TAN, TAG) check the excessive gas
					MOMENTARY STOP OF POWER (IN CASE OF LIGHTNING)	check the movement by reoperation
					DROP OF POWER VOLTAGE	check the power voltage (230V)
FLASHING	FLASHING	ON		protective action against excessive DC current detection or abnormal revolution of compressor	UNREASONABLE OPERATION UNDER OVERLOAD	check the place of installation (blockage of air inlet & outlet of TAN, TAG) check the excessive gas
					MOMENTARY STOP OF POWER (IN CASE OF LIGHTNING)	check the movement by reoperation
or					DROP OF POWER VOLTAGE	check the power voltage (230V)
FLASHING	OFF	ON			TAG PCB (MAIN)	See Flow Chart (P16)
					ACCIDENT OF PCB (POWER MODULE)	
					COMPRESSOR LOCKING	
FLASHING	FLASHING	FLASHING		in case of heating operation, a rise of temperature (above 58°C) of TAN heat exchanger or less quantity of TAG blow	FILTER IS CHOKED	check by eyes and clean it
in case of heating operation, after a few minutes operation, all lamps are flashing and TAN, TAG stop running					SENSOR, TEMP. HEAT EXCHANGER	check the resistance by tester [see table 2]
					TAN PCB (MAIN)	check the voltage between blue and yellow in connector [see fig.2] if it is not AC 110V ～ 230V, TAN PCB (main) should be replaced
					FAN MOTOR (TAN)	other than described above
FLASHING	ON	FLASHING	15 sec. later after main power on, or 60 sec. later after start running through remote controller, alarm indication appears	accident of controller	TAN PCB (MAIN)	15 sec. later after main power on, if alarm indication appears, TAN PCB (main) should be replaced
					TAG PCB (MAIN)	60 sec. later after start running through remote controller, if alarm indication appears, TAG PCB (main) should be replaced
–	–	–	–	not cool down not warm up	GAS LEAKAGE	check the point of leakage measure the pressure of compressor during fixed operation (operation frequency 58 Hz)
					SENSOR, TEMP. ROOM	check the resistance by tester [see table 1]
					SENSOR, TEMP. HEAT EXCHANGER	check the resistance by tester [see table 2]
					FAN MOTOR (TAN)	check the voltage between blue and yellow in connector [see fig.2] if it is AC 110V ～ 230V, TAN fan motor should be replaced
					4-WAY VALVE	check the resistance by tester [see fig.3]
					SHORT CYCLE (INSUFFICIENT AIR CIRCULATION)	check the blockage of air inlet & outlet of TAN, TAG
–	–	–	–	water leakage	DRAINAGE	check the drain hose by eyes (it might be folded or choked)
					MIS-INSTALLATION	check the TAN whether lean or not
–	–	–	–	nasty smell	FILTER IS CHOKED	check by eyes and clean it
					NO USE FOR A LONG TIME	
					NASTY SMELL (CIGARETTE, FURNITURE, ETC.)	use deodorizer
–	–	–	–	louver doesn' t work	LOUVER MOTOR	check the resistance by tester [see fig.4]

※In this table TAN means indoor unit and TAG means outdoor unit.

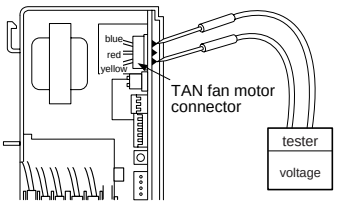
CHECK A FOLLOWING STEPS

〔fig. 1〕Continuity of current fuse on the TAG PCB (main)



Take off the connector 2 on the TAG PCB (main),
and check the continuity.

〔fig. 2〕Voltage of TAN fan motor on the TAN PCB (main)

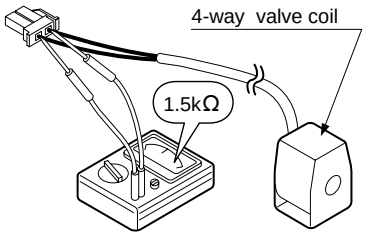


attention electric shock

Normal: 110V～230V

《Check the TAN PCB(main)》
Measure the voltage between the connector pins in the back of TAN PCB(main)

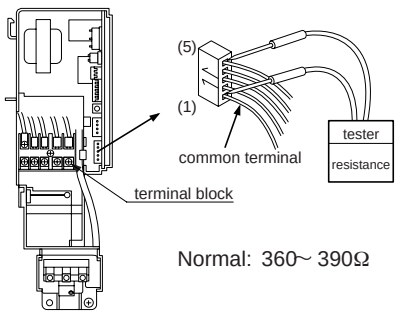
〔fig. 3〕Resistance of 4-way valve coil



Normal: 1.5kΩ

※ Take off the connector and check the Resistance of 4-way valve coil

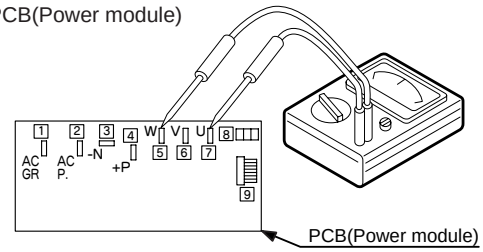
〔fig. 4〕Resistance of louver motor



Normal: 360～390Ω

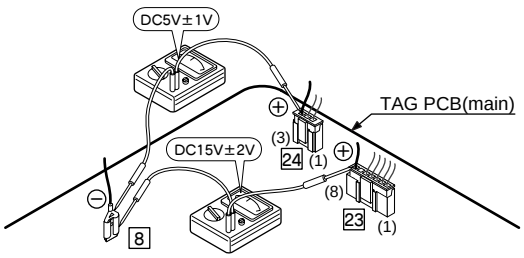
Take off the connector and check the resistance between the common terminal and each terminal

〔fig. 5〕PCB(Power module)



Take off the connectors 1～9 in PCB(Power module)
Measure the resistance, between U-V, V-W, W-U, V-U, W-V, U-W, respectively.
If all the figures show infinite (more than hundreds of kΩ) and similar one another(± 30%) then the module is normal condition.
if not, it is defective.

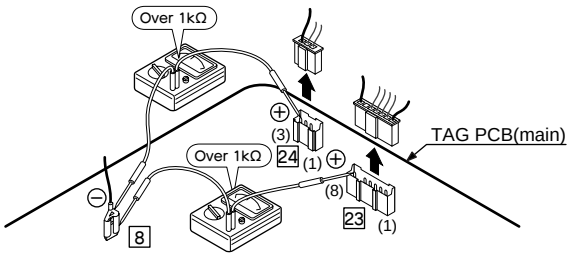
〔fig. 6〕Voltage of PCB(Power module)



Measure both voltages as follows without taking off the connectors.
between (3) in the 24 and 8 approx. DC 5V ± 1V
between (8) in the 23 and 8 approx. DC 15V ± 2V

Both PCB (Power module) and TAG PCB(main) are normal

〔fig. 7〕Resistance of TAG PCB(main)

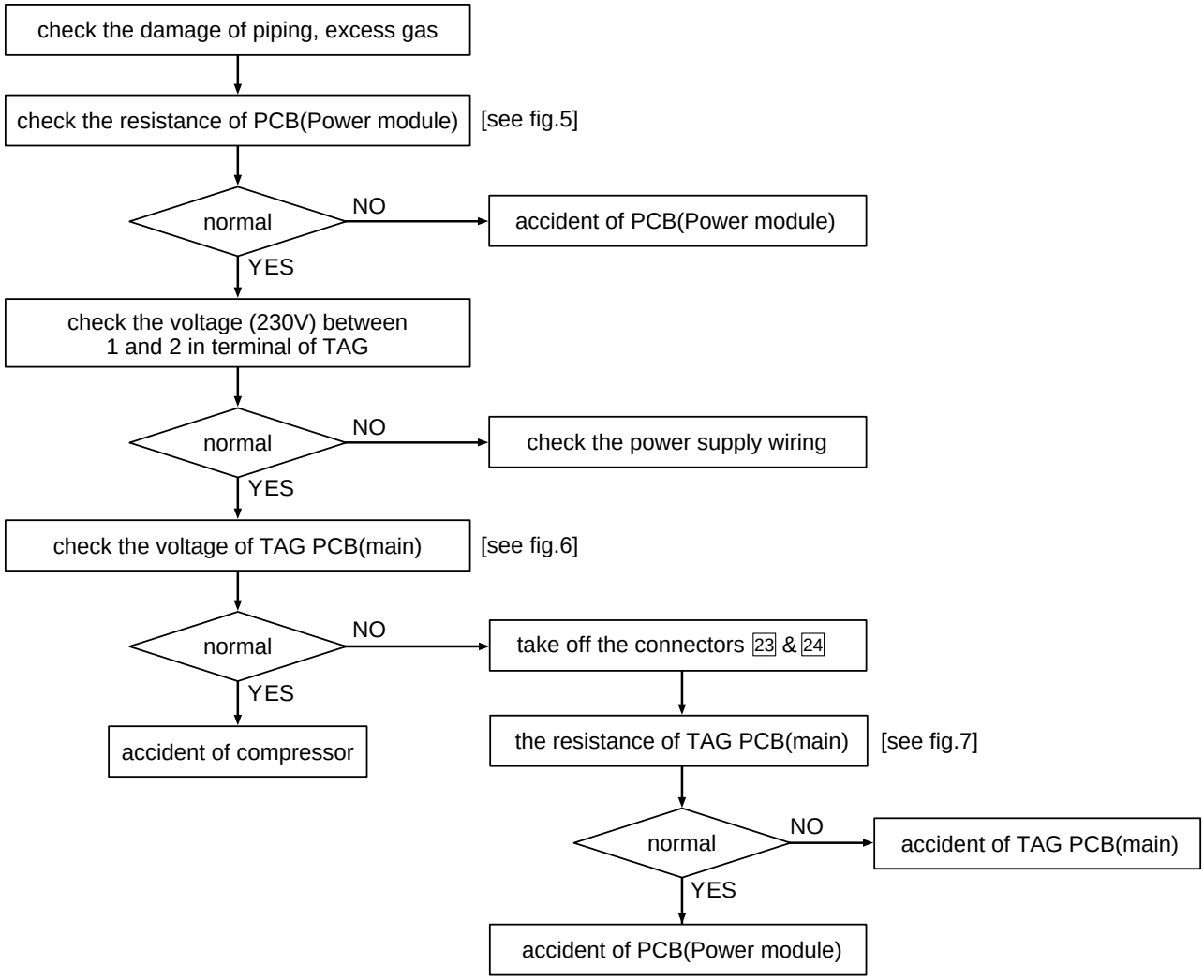


Measure both resistances as follows after taking off the connectors.
between (3) in the 24 and 8 approx. over 1kΩ between (8) in the 23 and 8 approx. over 1kΩ

TAG PCB(main) is normal.

METHOD OF CHECK
DC excessive current detection and in case of irregular work of compressor

Flow Chart



ELECTRIC CHARACTER

〔table 1〕 Sensor, temp. room

Temp.(°C)	Resistance (kΩ)
10	47
15	37
20	29
25	23
30	18
35	15

〔table 2〕 Sensor, temp. defrost
Sensor, temp. heat exchanger

Temp.(°C)	Resistance (kΩ)
0	31
5	24
10	19
15	15
20	12
25	10
30	8
35	7

〔table 3〕 Sensor, temp. discharge

Temp.(°C)	Resistance (kΩ)
10	1,000
20	600
35	300
40	250
50	160
80	50

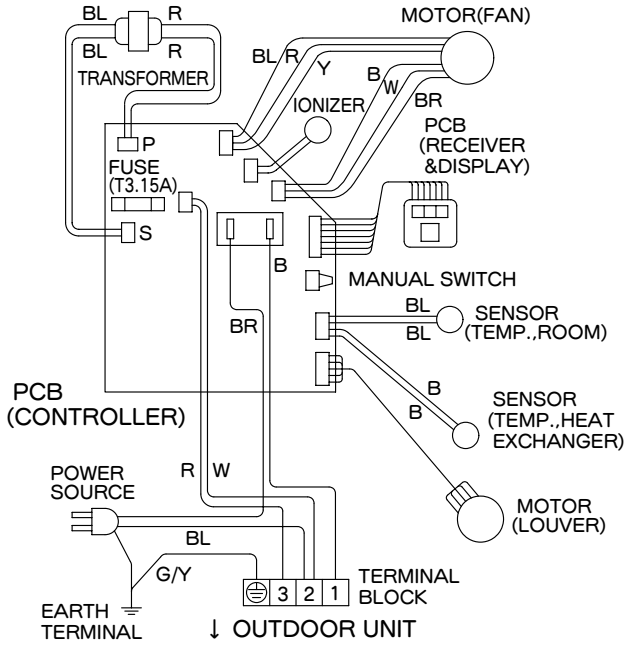
DISPLAY OF ERRORS IN THE PAST

- Push emergency operation switch and hold for more than 10 seconds while unit is not operated and release the switch when you hear three beeps.
  You will see the latest error by indication lamp.
  Further pushing of the switch will make the error indication by reversing cycle up to four latest errors in the past.
  At any stage, the error indication will disappear after 30 seconds.

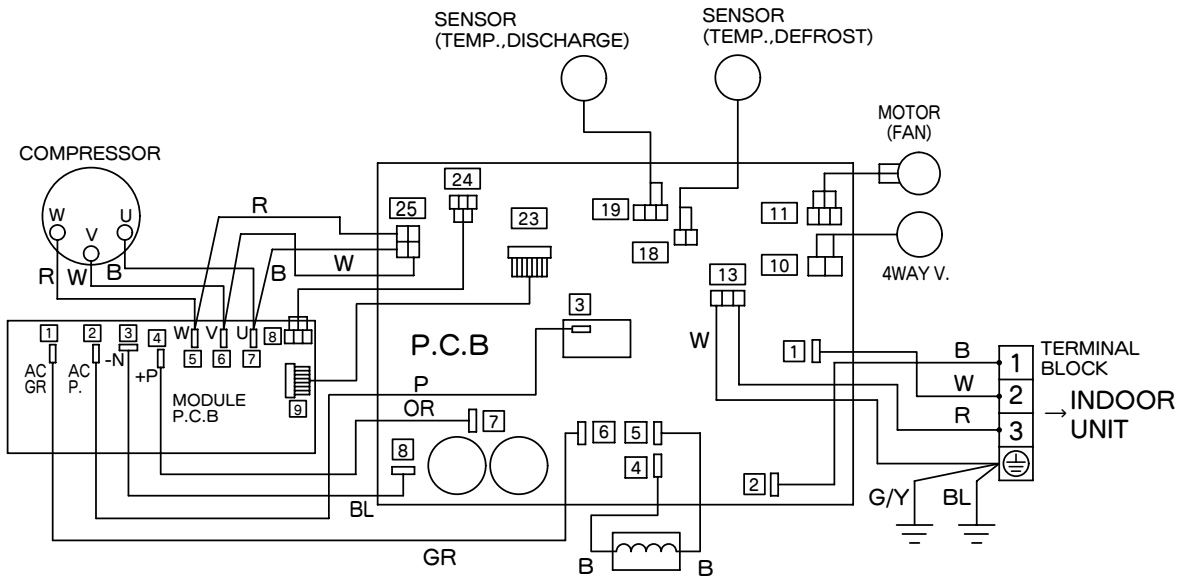
Hold switch for more than 10 seconds	Three beeps	The latest error indication
Another push	Two beeps	The second latest error indication
Another push	Three beeps	The third latest error indication
Another push	Four beeps	The fourth error indication
Another push	One beeps	Indication lamp goes off

WIRING DIAGRAM

TAN-A28FWIS
TAN-A32FWIS



TAG-A28FWIS
TAG-A32FWIS



TAN : INDOOR UNIT
TAG : OUTDOOR UNIT

B : BLACK
BL : BLUE
G : GREEN
GR : GRAY
OR : ORANGE
P : PINK
R : RED
W : WHITE
Y : YELLOW

REMARKS FOR GAS PRESSURE CHECK AND CHARGING

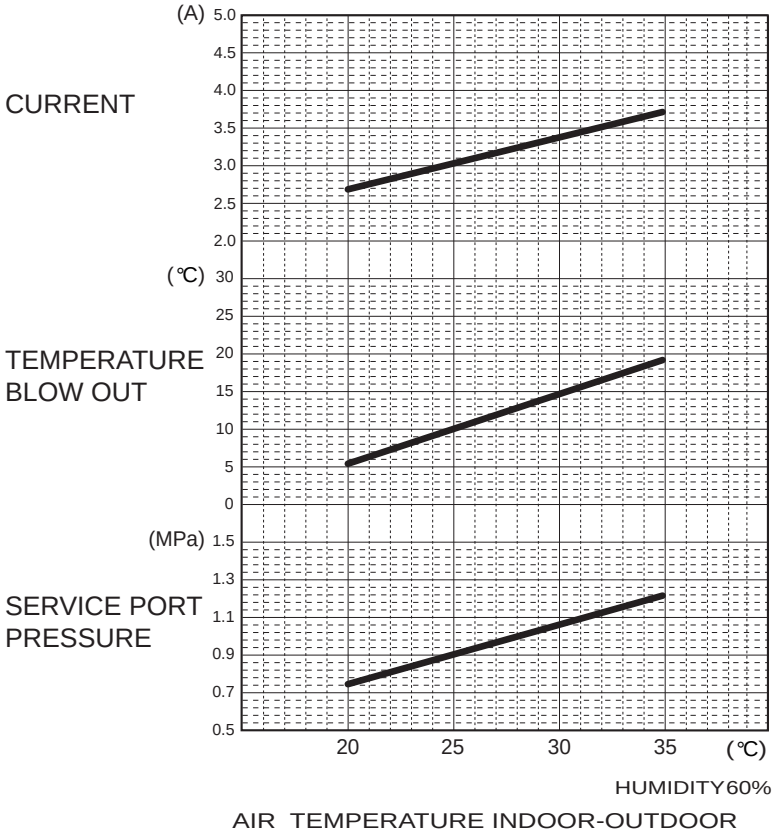
Gas pressure is to be measured at COMPULSORY COOLING OPERATION for cooling or EMERGENCY OPERATION for heating. (It is operated for 30 minutes at 58Hz fixed frequency.)
If you find substantial diffrence in performance compared with PERFORMANCE CURVE as shown next, recharge the refrigerant.
(In order to avoid excessive charging, purge all the remaining refrigerant first and then evacuate the unit completely with vacuum pump and finally apply rated volume charging of refrigerant.)
Charging of refrigerant should be done by cooling operation, because the pressure at service valve will be too high at heating cycle, then the heating performance characteristics must be checked by restarting of heating operation.

Piping size	Liquid side	6.35mm
	Gas side	9.52mm
Max. tube length		15m
Max. height difference		10m

PERFORMANCE CURVE DIAGRAM

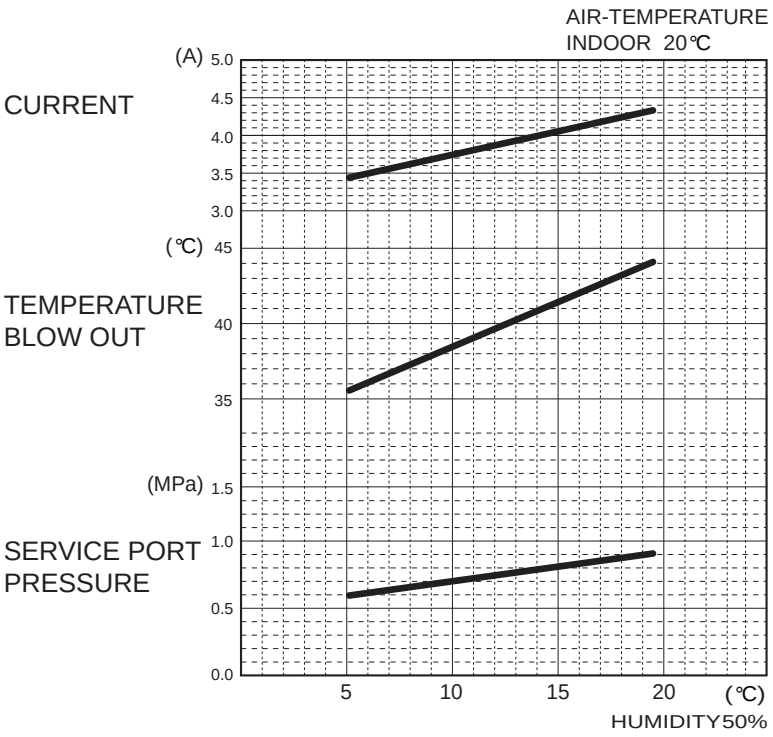
TAN/TAG-A28FWIS

COOLING



AIR TEMPERATURE INDOOR-OUTDOOR

HEATING

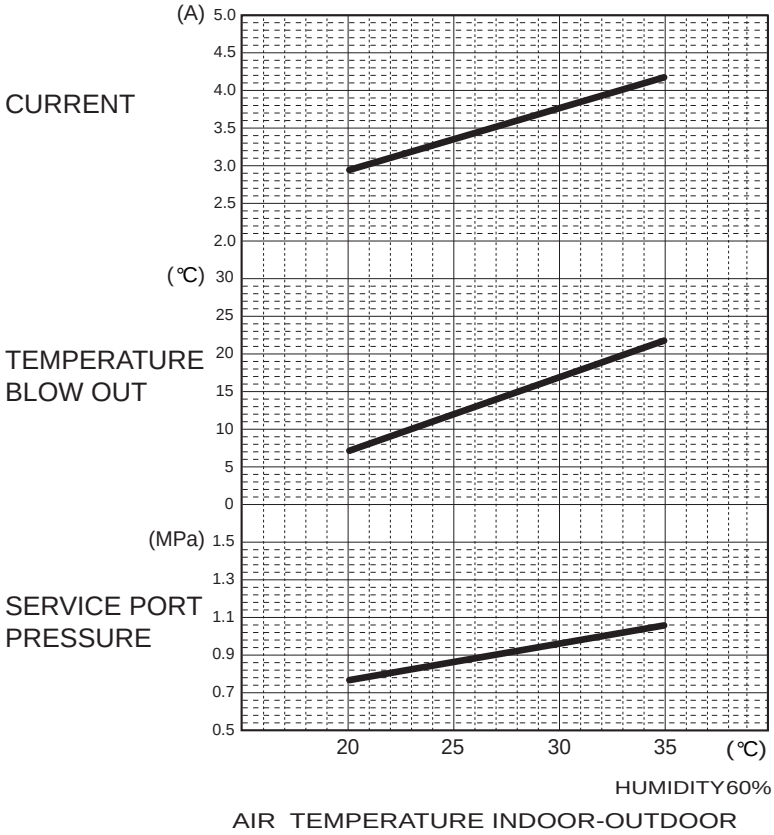


AIR TEMPERATURE-OUTDOOR

PERFORMANCE CURVE DIAGRAM

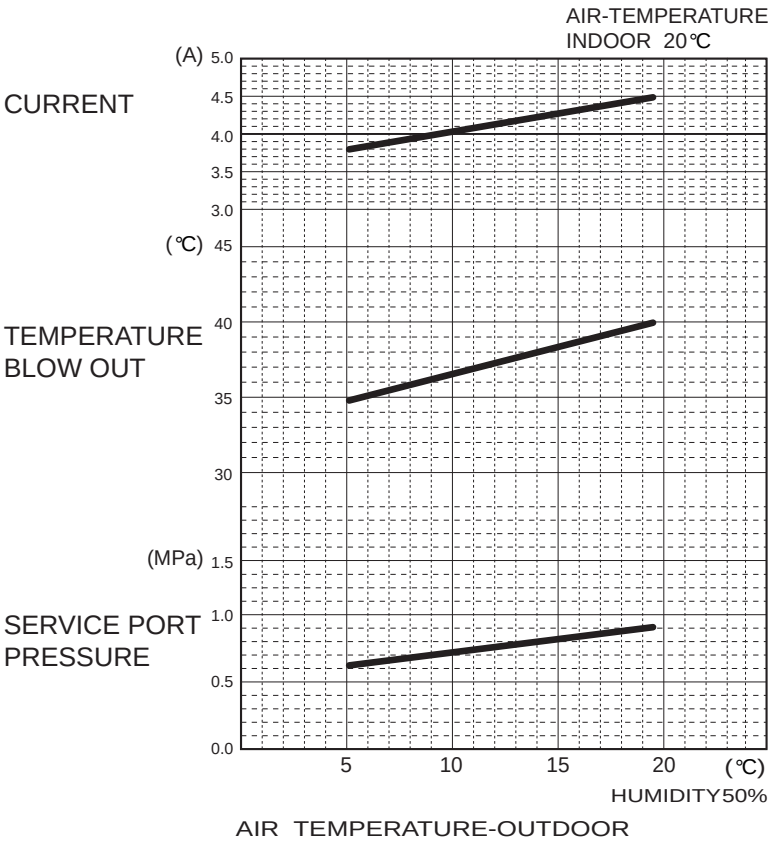
TAN/TAG-A32FWIS

COOLING



AIR TEMPERATURE INDOOR-OUTDOOR

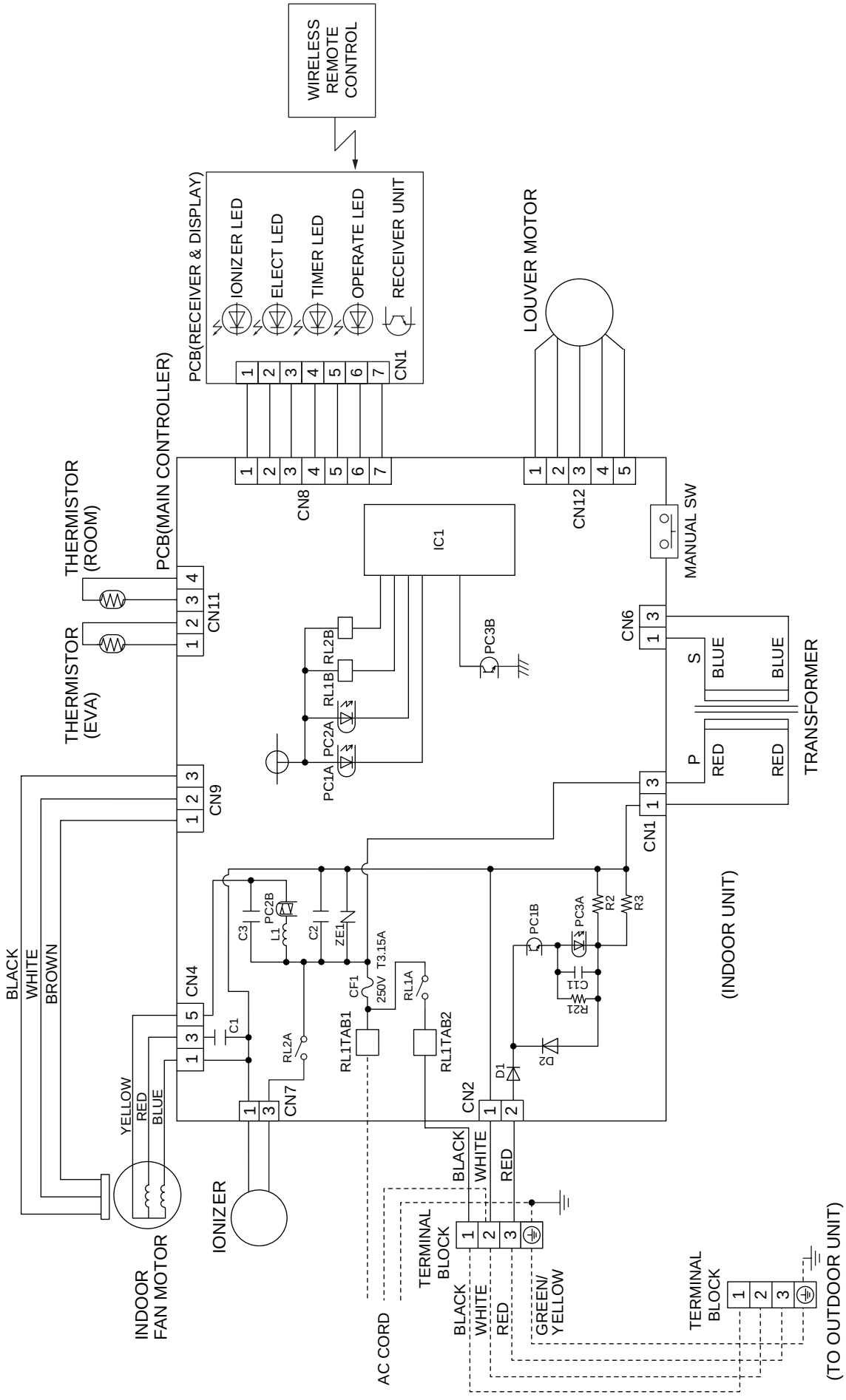
HEATING



AIR TEMPERATURE-OUTDOOR

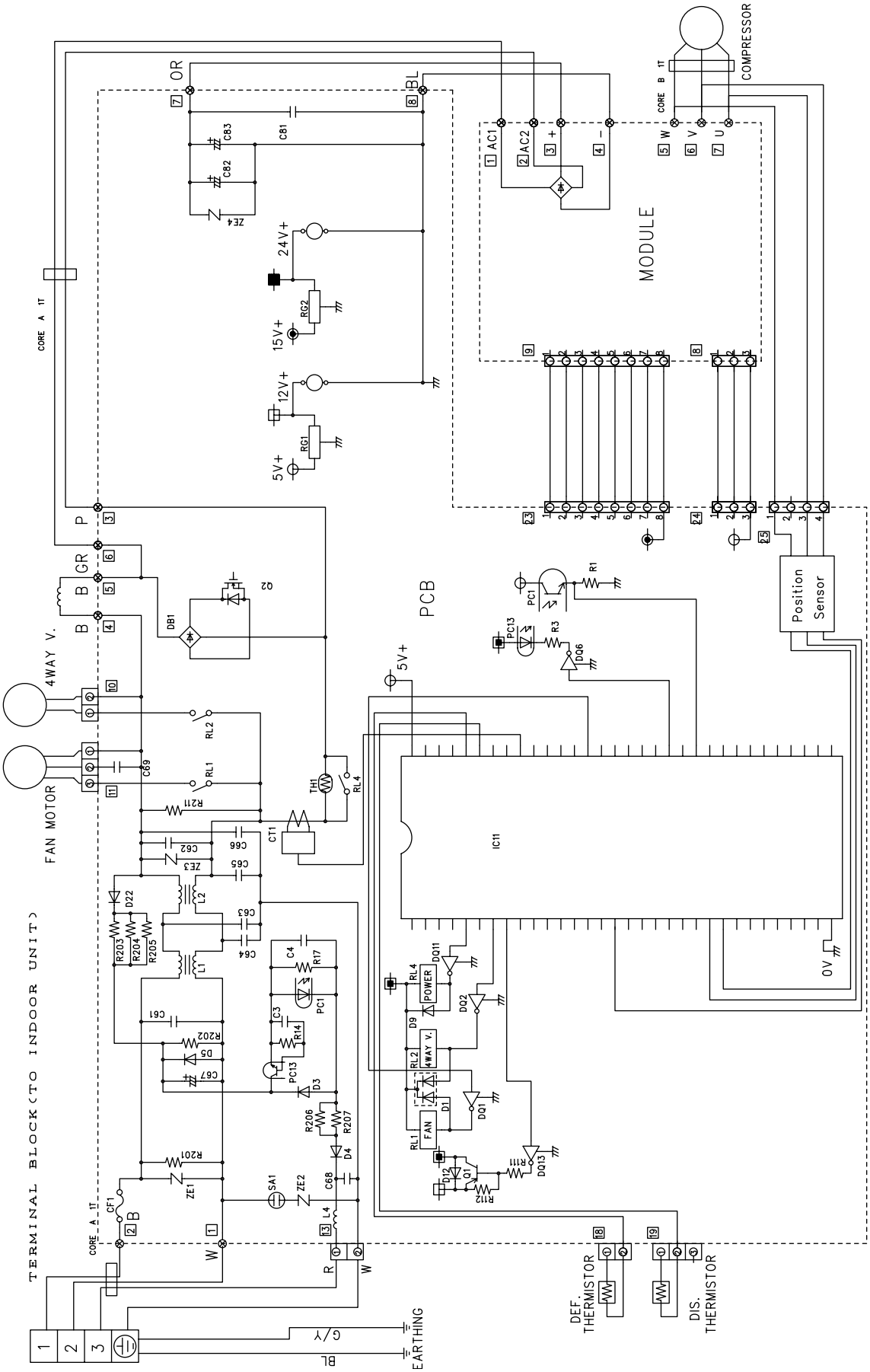
ELECTRIC CIRCUIT DIAGRAM

TAN-A28FWIS, TAN-A32FWIS



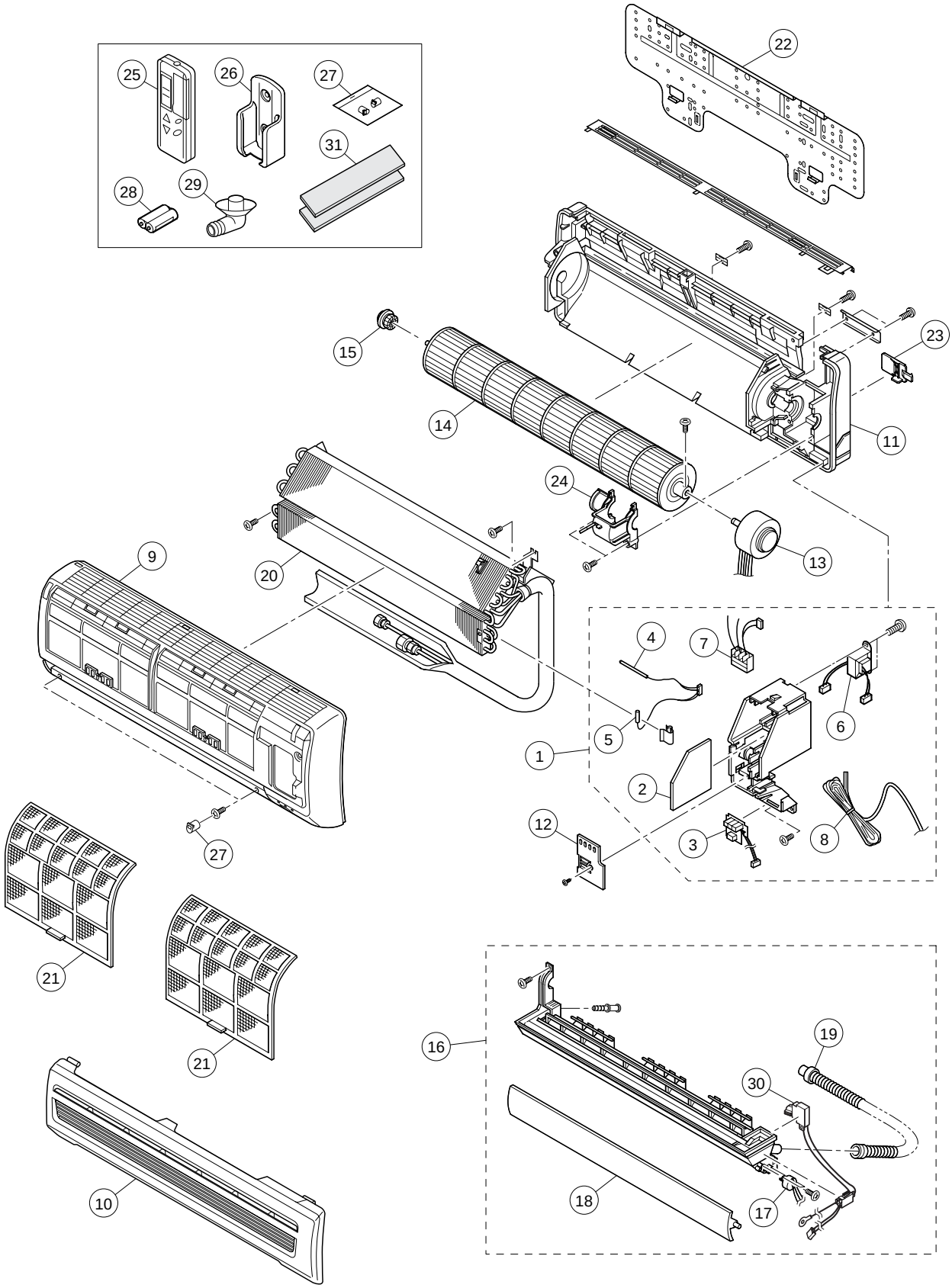
ELECTRIC CIRCUIT DIAGRAM

TAG-A28FWIS, TAG-A32FWIS



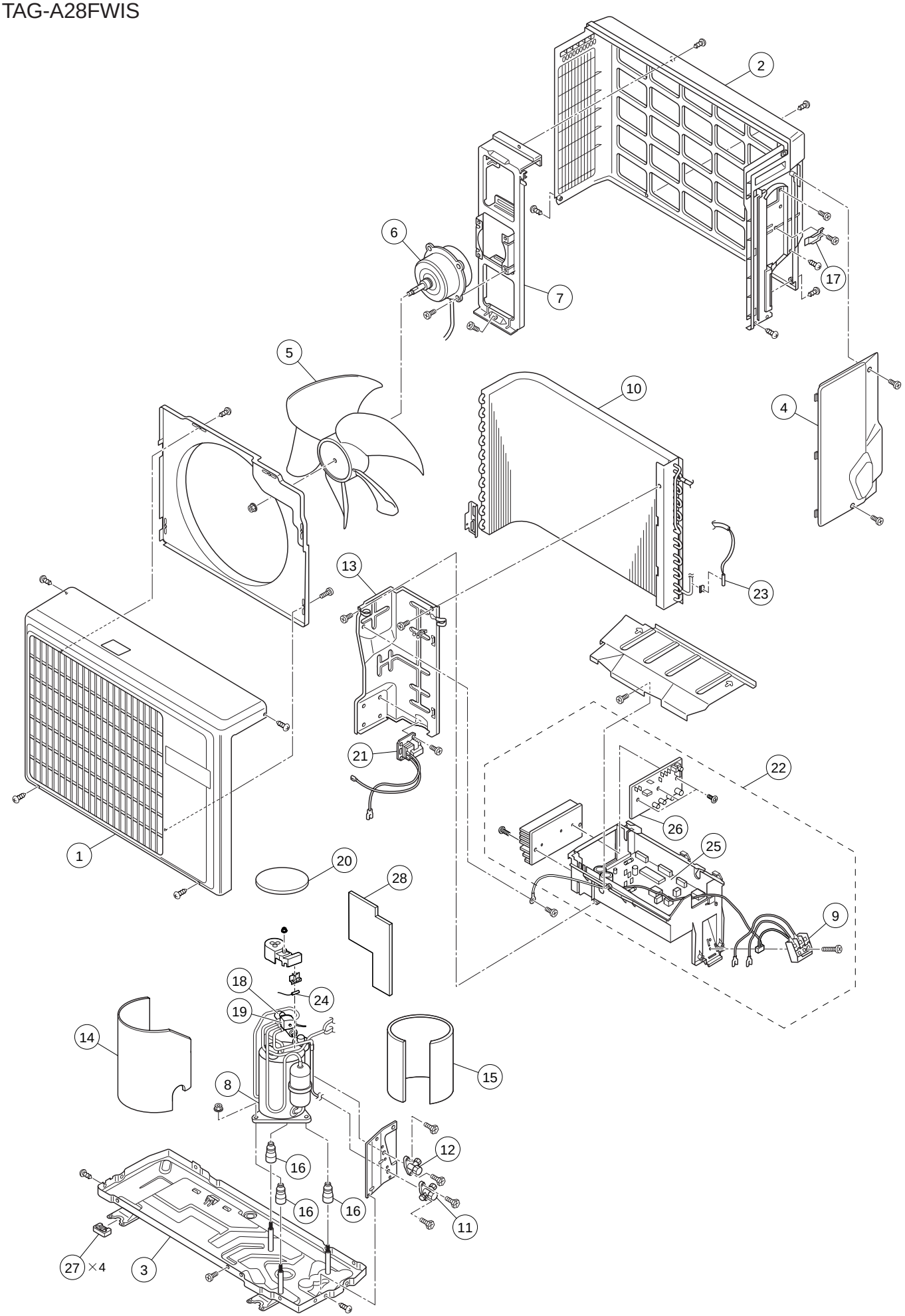
EXPLODED VIEW (INDOOR UNIT)

TAN-A28FWIS
TAN-A32FWIS



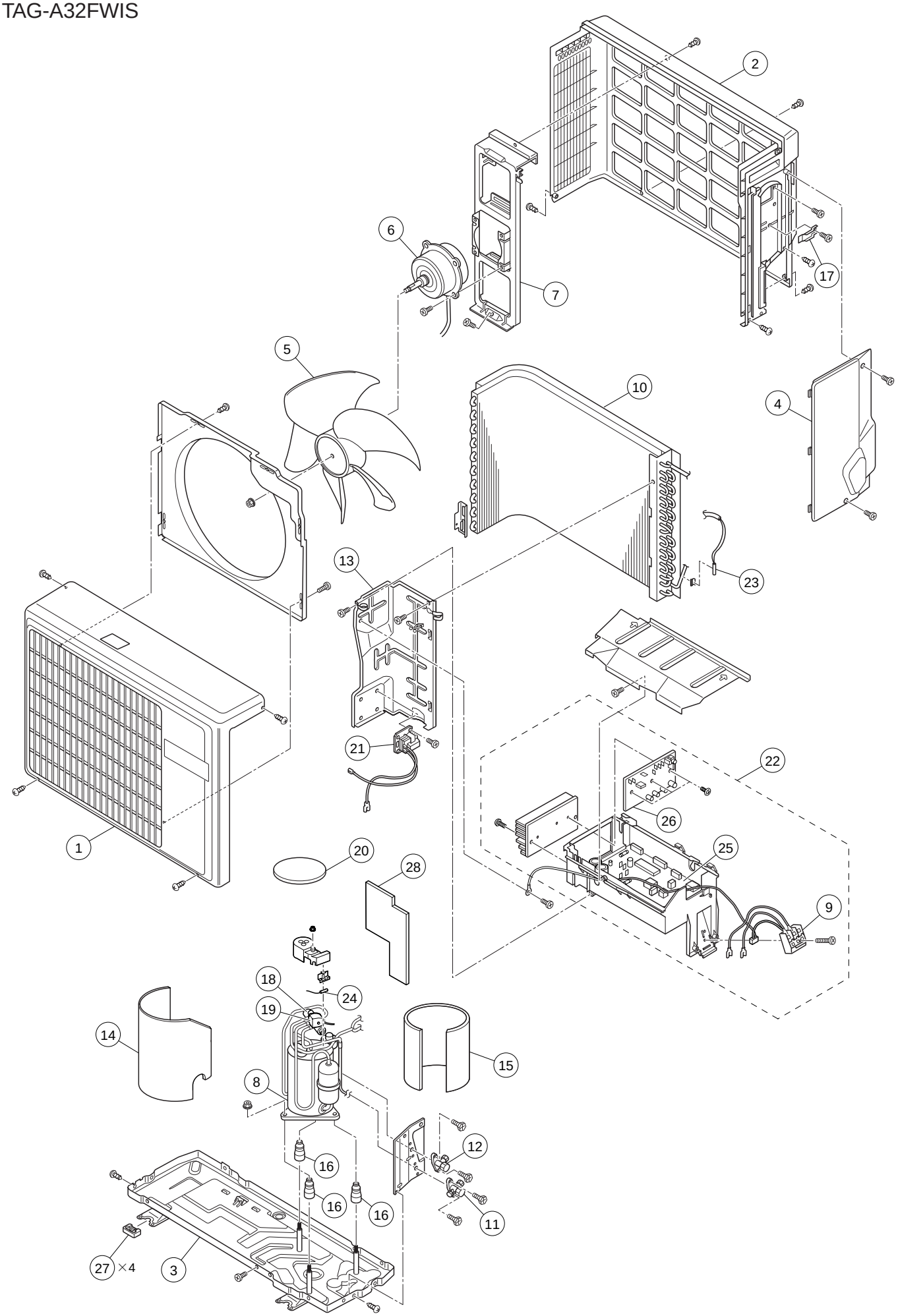
EXPLODED VIEW (OUTDOOR UNIT)

TAG-A28FWIS



EXPLODED VIEW (OUTDOOR UNIT)

TAG-A32FWIS



PARTS LIST (INDOOR UNIT)

NO.	PARTS NAME	TAN-A28FWIS	TAN-A32FWIS
1	CONTROLLER ASSY.	20422620	20422630
2	PCB (MAIN)	30055500	30055550
3	PCB (RECEIVER & DISPLAY)	30055510	←
4	SENSOR (TEMP,ROOM & HEAT EXCHAGER)	30013610	←
5		30055070	←
		30054290	←
6	TRANSFORMER	30021680	←
		51955370	←
		30055520	←
7	TERMINAL BLOCK	51620840	←
8	CORD,POWER SUPPLY	30021550	←
9	FRONT PANEL ASSY.	20088200	←
10	INLET GRILLE	20031020	←
11	REAR CASE ASSY.	RC00300-20003	←
12	WIRING LID	20044490	←
13	MOTOR,FAN	L2-12300	←
		L2-02200	←
14	TANGENTIAL FAN	K1-02800	←
		K1-00200	←
		K1-02500	←
15	BEARING ASSY.	RC00100-42000	←
16	DRAIN PAN ASSY.	20412630	←
17	MOTOR,LOUVER	51621270	←
		51621030	←
		51621010	←
		30027370	←
		51621040	←
18	LOUVER (UP-DOWN)	20044450	←
19	DRAIN HOSE	51620000	←
20	EVAPORATOR ASSY.	20422600	←
21	AIR FILTER	20205120	←
22	MOUNTING PLATE ASSY.	RC00100-21003	←
23	PIPING SUPPORT (1)	RC2021-516	←
24	MOTOR SUPPORT	RC2521SV-51800	←
25	REMOTE CONTROLLER ASSY.	20431840	←
26	REMOTE CONTROLLER HOLDER	20139550	←
27	SCREW CAP	20048420	←
28	BATTERY	30057750	←
29	DRAIN ELBOW	20148080	←
30	IONIZER	30055490	←
31	AIR CLEAN FILTER	30060970	←

NO.	PARTS NAME	TAG-A28FWIS	TAG-A32FWIS
1	FRONT PANEL ASSY.	20050670	←
2	SIDE PANEL ASSY.	20046550	←
3	BOTTOM PANEL ASSY.	20412770	←
4	VALVE COVER	20050690	←
5	PROPELLER FAN	52630380	←
		52630180	←
6	MOTOR	53501650	←
		53501540	←
7	BRACKET, MOTOR	20038120	20219780
8	COMPRESSOR	30055600	←
9	TERMINAL BLOCK	51620820	←
10	CONDENSER ASSY.	20422250	20422260
11	VALVE,SERVICE (3/8)	51535700	←
12	VALVE,SERVICE (1/4)	51535330	←
13	BAFFLE PANEL ASSY.	20421860	←
14	SOUND PROOF MATERIAL1	20425870	←
15	SOUND PROOF MATERIAL2	20425880	←
16	VIBRATION PROOF RUBBER (comp.)	30057790	←
17	FIXTURE,CORD	20038190	←
18	4-WAY VALVE ASSY.	20422290	-
19	COIL,4-WAY VALVE	51202320	←
20	SOUND PROOF MATERIAL3	20425890	←
21	REACTOR	30055560	←
22	CONTROLLER ASSY.	20412790	20412800
23	SENSOR (TEMP.DEFROST)	51100960	←
		51100600	←
		30054280	←
24	SENSOR (TEMP.DISCHARGE)	51100870	←
		51101350	←
		30054310	←
25	PCB (MAIN)	30055570	30055580
26	PCB (POWER MODULE)	30055590	←
27	VIBRATION PROOF RUBBER (UNIT)	20046680	←
28	SOUND PROOF MATERIAL4	20428920	←

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