



# INSTALLATION MANUAL

## CEILING CONCEALED R-32 SPLIT TYPE AIR-CONDITIONER

### MODELS

FDBF12CRV16

FDBF18CRV16

FDBF24CRV16

FDMF30CRV16

FDMF36CRV16

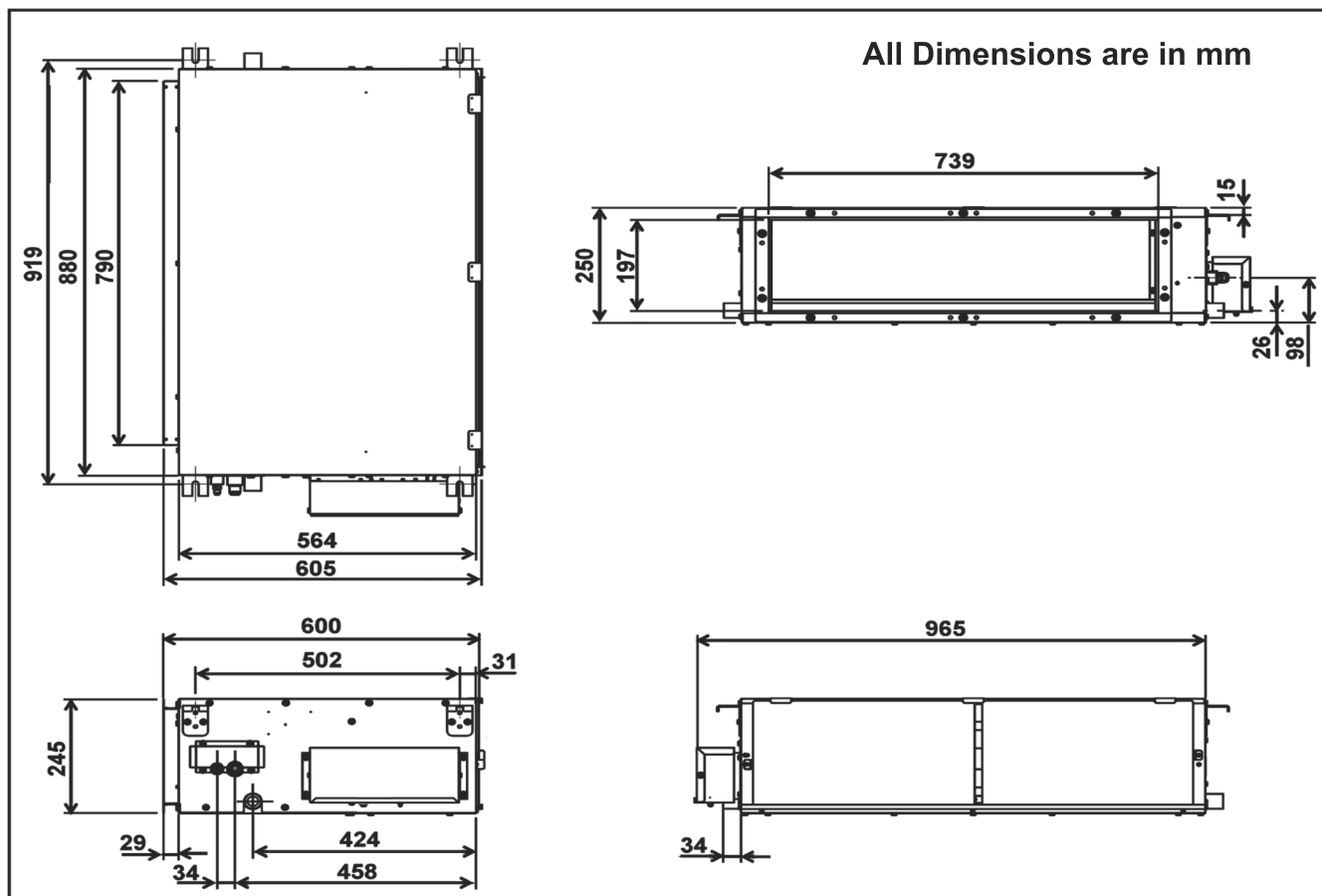
FDMF42CRV16

FDMF48CRV16

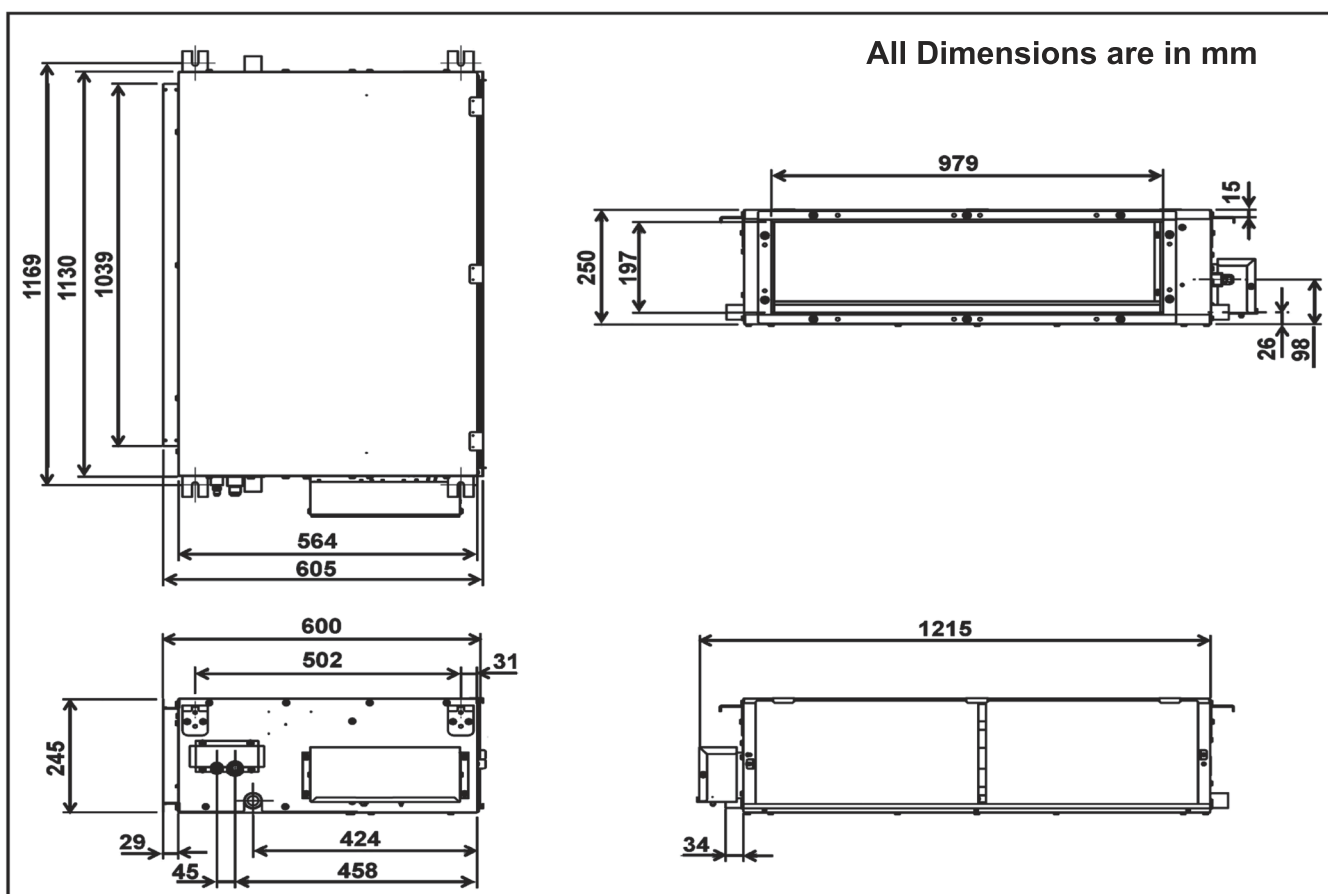


OUTLINE AND DIMENSIONS

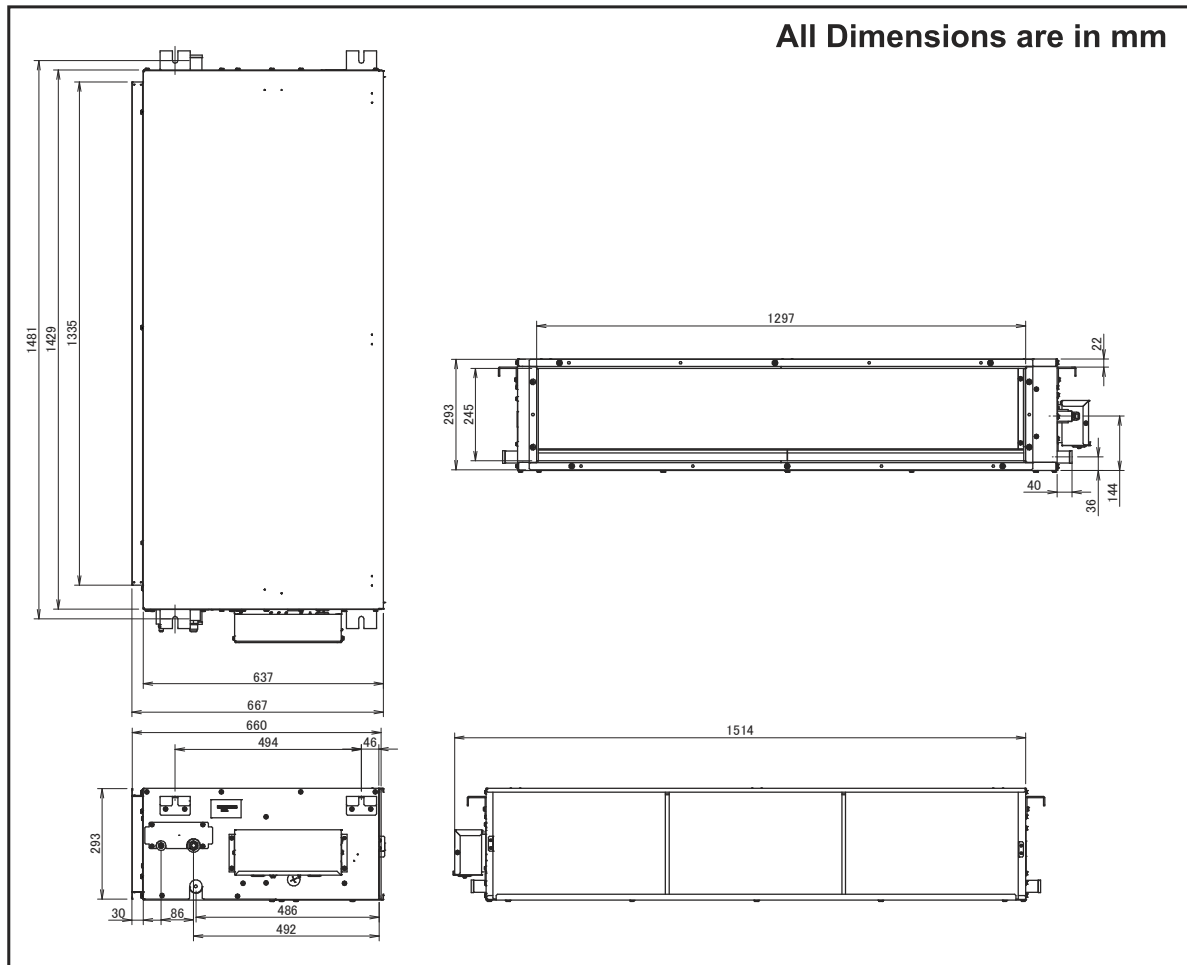
INDOOR UNIT FDBF12/18CRV16



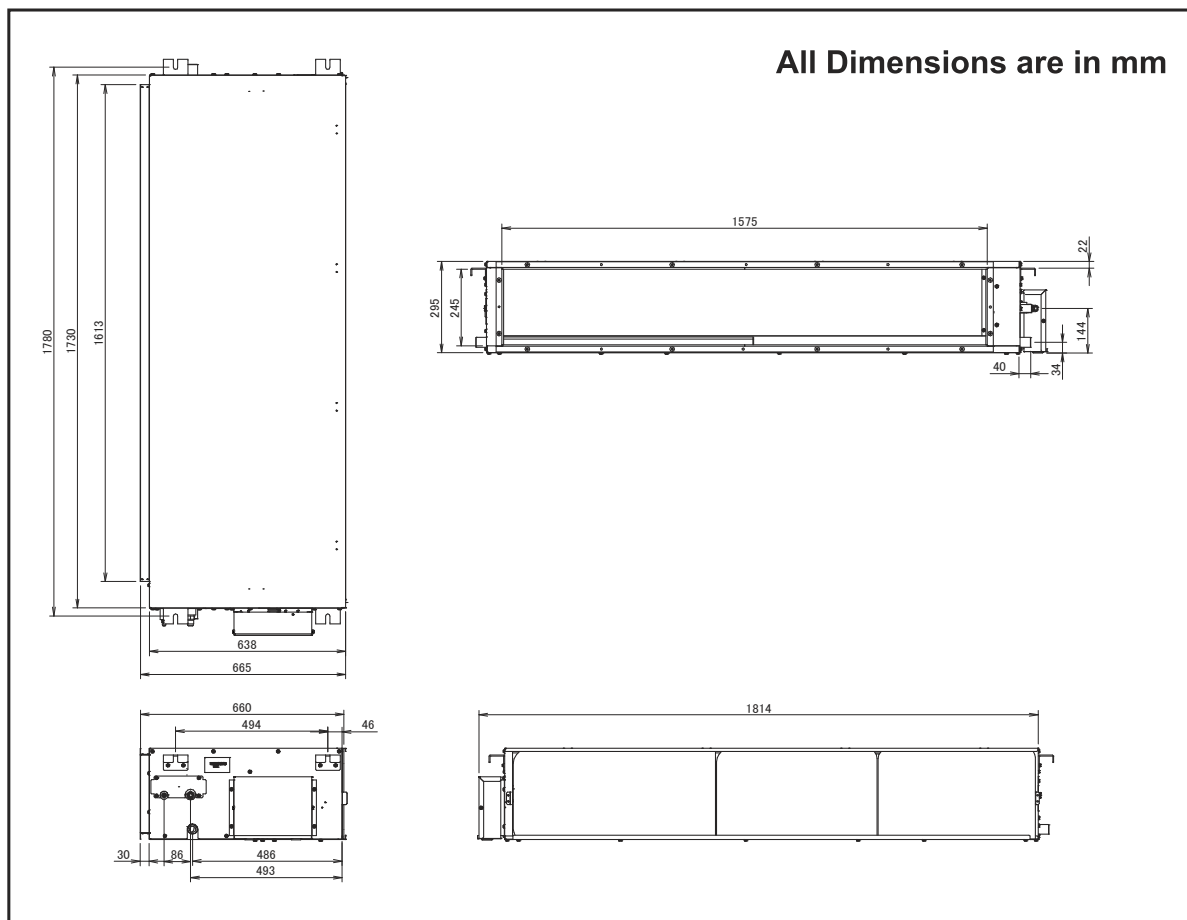
INDOOR UNIT FDBF24CRV16



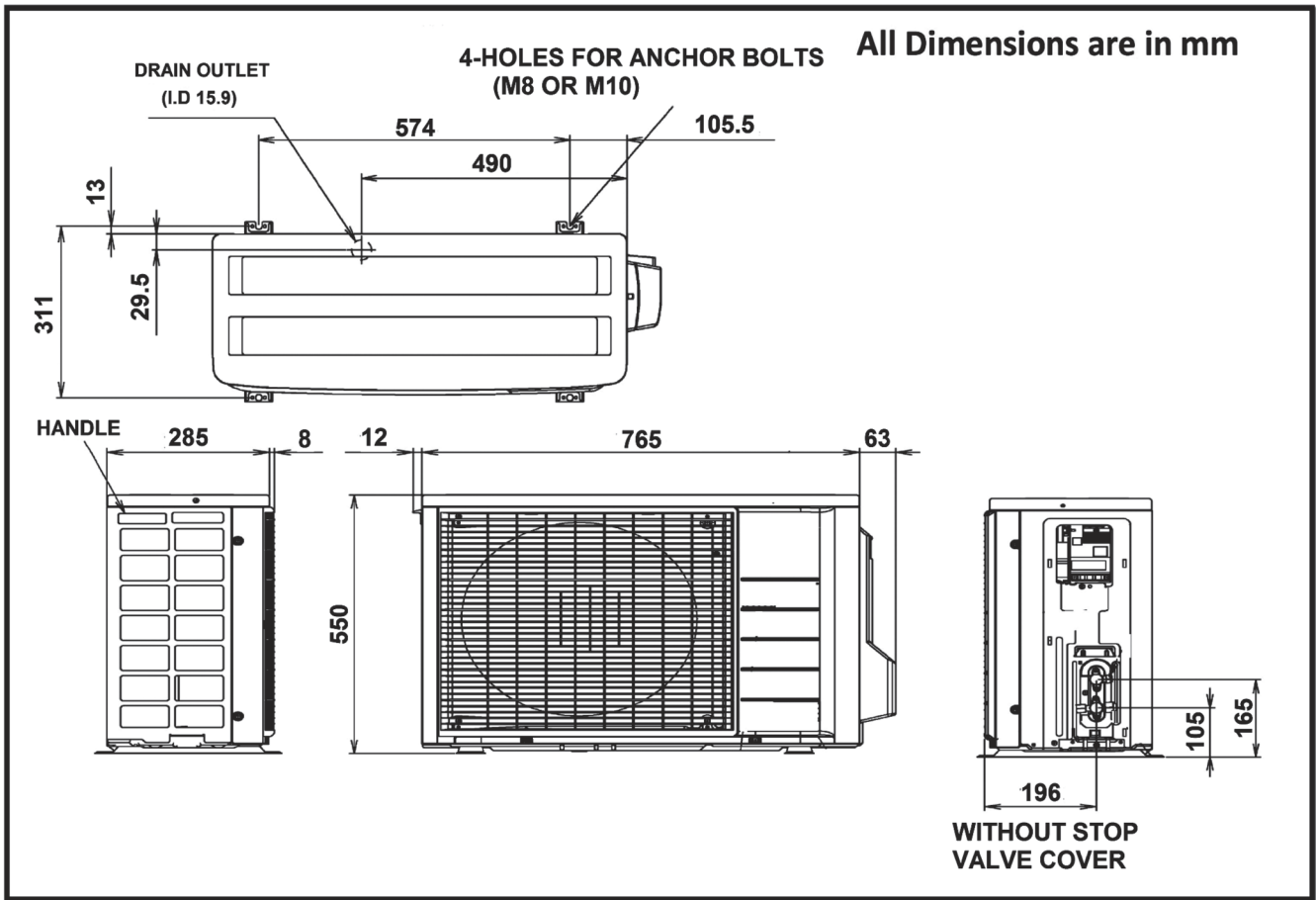
# INDOOR UNIT FDMF30/36/42CRV16



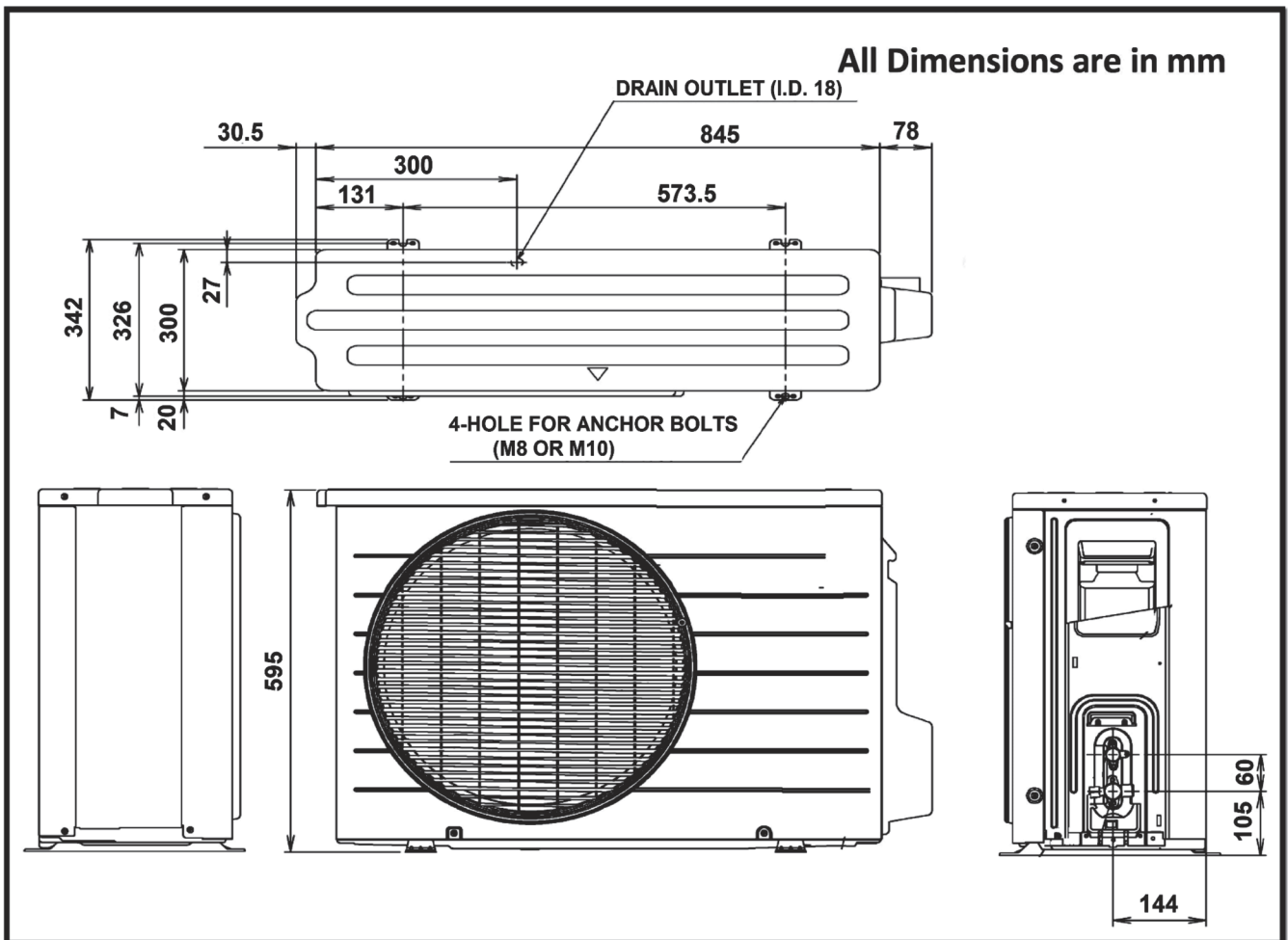
# INDOOR UNIT FDMF48CRV16



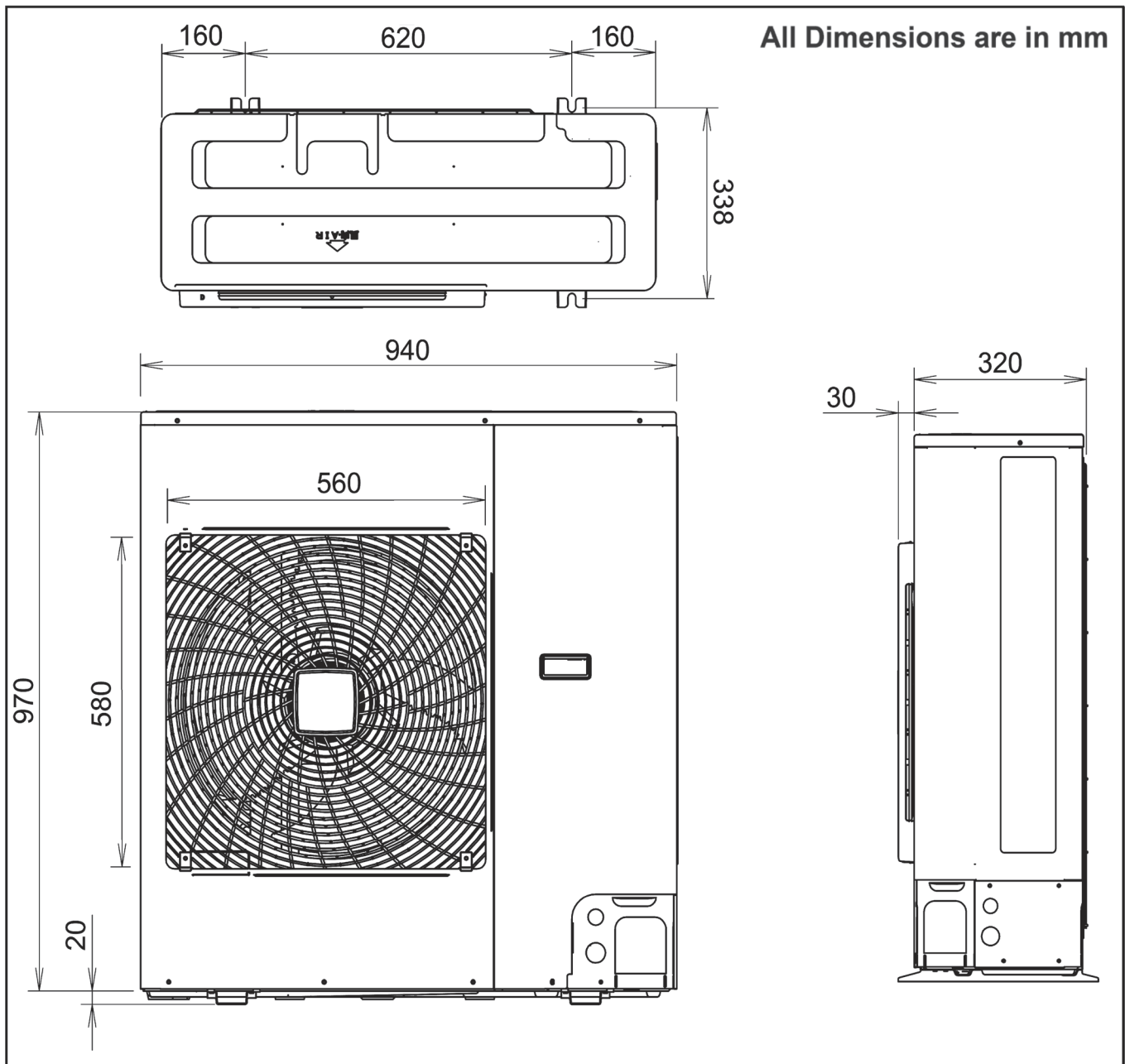
## OUTDOOR UNIT RGF12CRV16 HORIZONTAL AIR DISCHARGE



## OUTDOOR UNIT RGF18/24CRV16 HORIZONTAL AIR DISCHARGE



**OUTDOOR UNIT RGF30/36CRV16 / RGF42/48CRY16**  
**HORIZONTAL AIR DISCHARGE**



# INSTALLATION MANUAL

This manual provides the procedures of installation to ensure a safe and good standard of operation for the air conditioner unit.

Special adjustment may be necessary to suit local requirements.

Before using your air conditioner, please read this instruction manual carefully and keep it for future reference.

This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.

## SAFETY PRECAUTIONS

### WARNING

- Installation and maintenance should be performed by qualified persons who are familiar with local code and regulation, and experienced with this type of appliance.
- All field wiring must be installed in accordance with the national wiring regulation.
- Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work according to the wiring diagram.
- The unit must be GROUNDED to prevent possible hazard due to insulation failure.


**• Be sure to install an earth leakage breaker. Failure to install an earth leakage breaker may result in electric shocks or fire.**

- All electrical wiring must not touch the refrigerant piping, or any moving parts of the fan motors.
- Confirm that the unit has been switched OFF before installing or servicing the unit.
- Disconnect from the main power supply before servicing the air conditioner unit.
- DO NOT pull out the power cord when the power is ON. This may cause serious electrical shocks which may result in fire hazards.
- Keep the indoor and outdoor units, power cable and transmission wiring, at least 1m from TVs and radios, to prevent distorted pictures and static. (Depending on the type and source of the electrical waves, static may be heard even when more than 1m away).


### CAUTION

Please take note of the following important points when installing.


- **Do not install the unit where leakage of flammable gas may occur.**

 If gas leaks and accumulates around the unit, it may cause fire ignition.


- **Ensure that drainage piping is connected properly.**

 If the drainage piping is not connected properly, it may cause water leakage which will dampen the furniture.

- **Do not overcharge the unit.**

 Overcharge will cause over-current or damage to the compressor.

- **Ensure that the unit's panel is closed after service or installation.**

 Unsecured panels will cause the unit to operate noisily.

- **Sharp edges and coil surfaces are potential locations which may cause injury hazards.**

**Avoid from being in contact with these places.**

- **Before turning off the power supply, set the remote controller's ON/OFF switch to the "OFF" position to prevent the nuisance tripping of the unit.** If this is not done, the unit's fans will start turning automatically when power resumes, posing a hazard to service personnel or the user.

- **Do not install the units at or near doorway.**

- **Do not operate any heating apparatus too close to the air conditioner unit or use in room where mineral oil, oil vapour or oil steam exist, this may cause plastic part to melt or deform as a result of excessive heat or chemical reaction.**

- **When the unit is used in kitchen, keep flour away from going into suction of the unit.**

- **This unit is not suitable for factory used where cutting oil mist or iron powder exist or voltage fluctuates greatly.**

- **Do not install the units at area like hot spring or oil refinery plant where sulphide gas exists.**

- **Ensure the color of wires of the outdoor unit and the terminal markings are same to the indoors respectively.**

- **IMPORTANT: DO NOT INSTALL OR USE THE AIR CONDITIONER UNIT IN A LAUNDRY ROOM.**

- **Don't use joined and twisted wires for incoming power supply.**

## INSTALLATION OF THE INDOOR UNIT

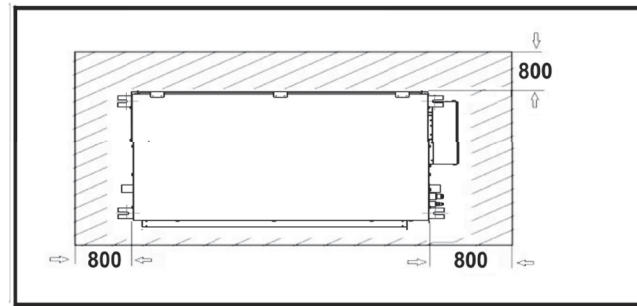
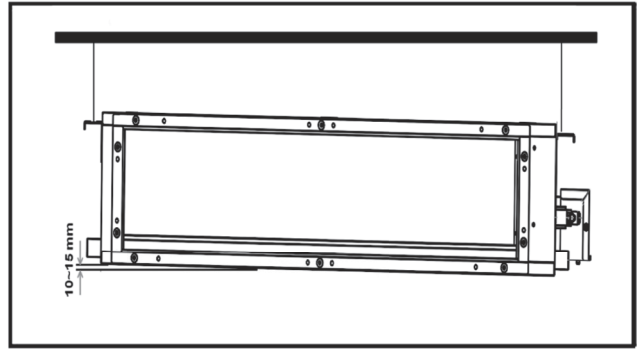
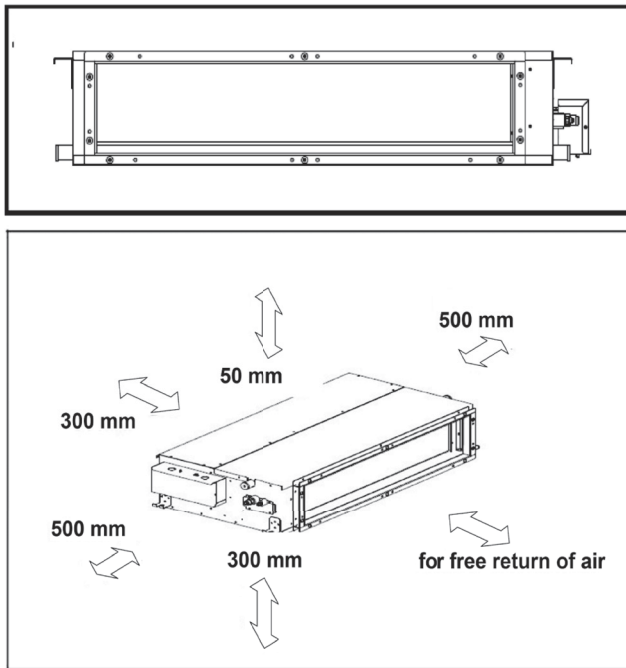
### Mounting

Ensure that the overhead supports are strong enough to hold the unit's weight. Position hanger rods and check for alignment with the unit. Check that hangers are secure and that the base of fan-coil unit is level in the two horizontal directions, taking into account the gradient recommended for drainage flow as shown. Check the gradient recommended for drainage flow as follow.

Provide clearance for servicing and optimal air flow as shown in the diagram.

The indoor unit must be installed such that there is no short circuit of cool discharge with air discharge. Respect the installation clearance.

Do not put the indoor unit where there is direct sunlight on unit. The location is suitable for piping and drainage and it must be have a large distance between a door and unit .

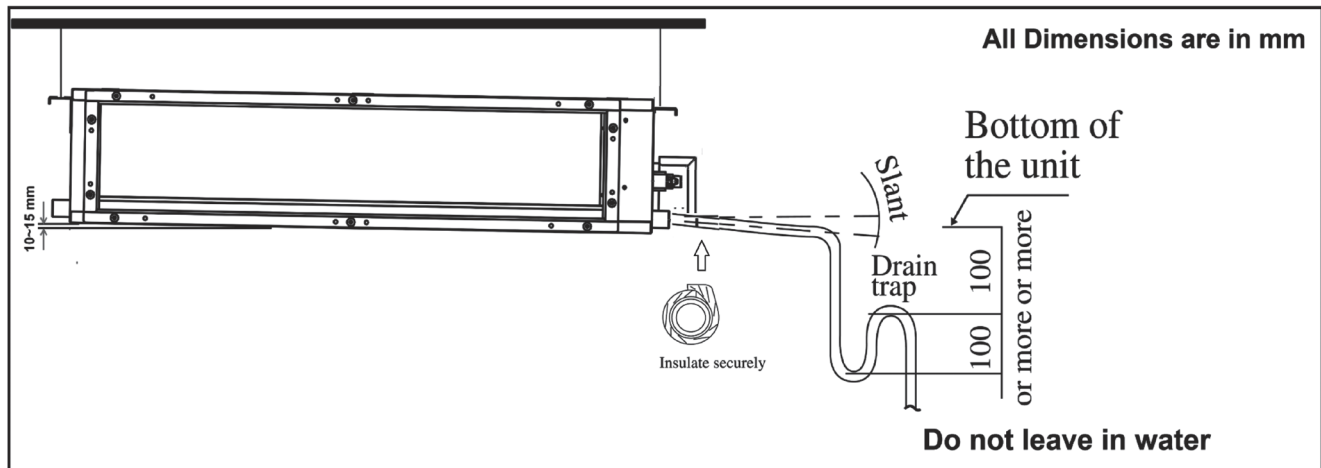


All dimensions in mm

**Important:** Total Number of installation Rods Should be in accordance with number of hanger metal provided for installation.



### Ceiling Concealed Drain Piping Work



- The drain pipe must be installed as shown in the diagram (see diagram above) to avoid damage caused by leaks and condensation.
- For the best result, keep the piping as short as possible. Slant the piping at an angle to improve the flow.
- Unit installation should be tilted at least 10~15mm.
- Ensure the drain pipe is securely insulated.
- It is necessary to provide a drain trap in the drain outlet to relieve pressure that exists within the unit compared to the outside atmospheric pressure when the unit is operating. The drain trap is to avoid possibility of splashes or an odor.
- Keep pipes as straight as possible for easy cleaning and to prevent the accumulation of dirt and debris.
- Conduct a water drainage test after the installation is completed. Make sure that the drainage flow is smooth.
- In humid environments, use an extra drain pan to cover the entire area of indoor unit.

**Note:** Keep open any one drain socket cap as per site conditions and maintain proper slope as shown above.

### OPTIONAL ACCESSORIES

Please refer the below table for optional accessories that can be used with indoor unit

Model	Wired Remote	Optional Wireless Remote
FDBF12/18/24CRV16 FDMF30/36CRV16	4P442946	BRC4N151
FDMF42/48CRV16	4P408280	

**Note:** Above wireless remote can be used with the IR sensor provided in wired remote.  
(Wired remote comes as an accessory with indoor units)

## INSTALLATION OF THE OUTDOOR UNIT

### Location For Installation

Install the outdoor unit in such way that air distributed by the outdoor unit cannot be drawn in again (as in the case of short circuit of discharge air). Allow sufficient space for maintenance around the unit.

Select the coolest possible place where intake air should not be higher than the outside temperature (maximum 48°C).

Ensure that there are no obstruction of air flow into or out of the unit. Remove obstacles which block air intake or discharge.

When two or more outdoor units are installed in a location, they must be positioned such that one unit will not be taking the discharge air from another.

This also applies when two or more units are installed one above the other. The units must all face the same direction, or opposite direction (back to back), such that air short circuit does not occur.

The location must be well ventilated, so that the unit can draw and distribute plenty of air.

A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.

A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.

A place where smooth drainage of rain water and water formed by defrosting is acceptable.

A place where the unit will not be buried in snow.

A place where air outlet port is not exposed to strong wind.

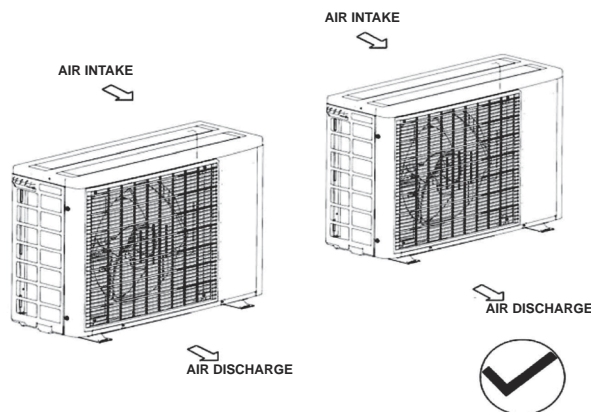
A place where the air discharge and operating sound level will not annoy the neighbours.

The location must not be susceptible to dust or oil mist.

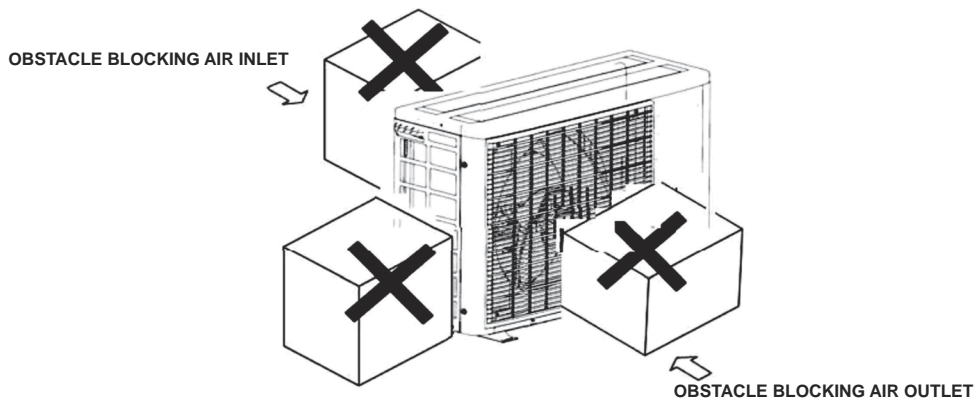
### Location For Installation Of The Condensing Units

As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected should fulfill the following requirements:-

- Install the condensing (outdoor) unit in a way such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



- Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacle which block air intake or discharge.

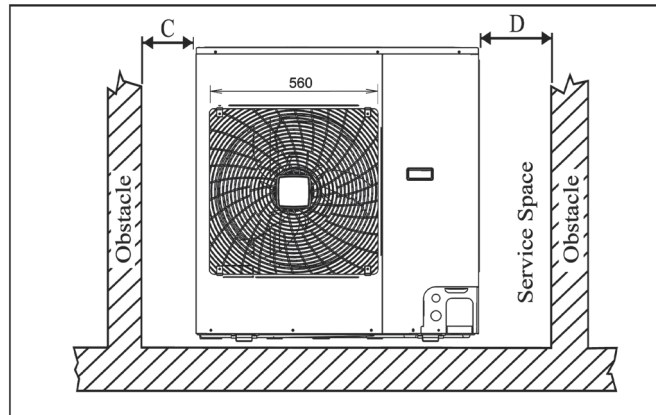
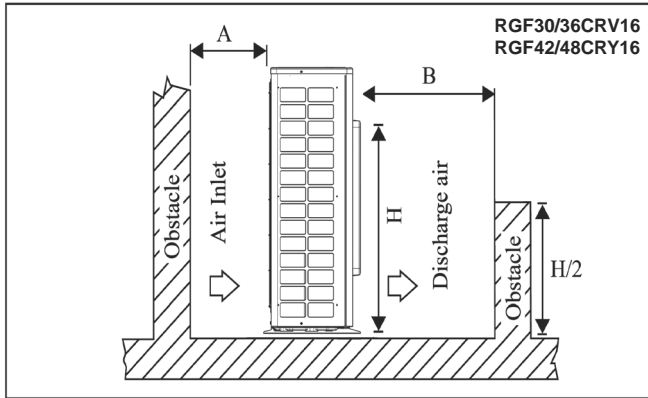
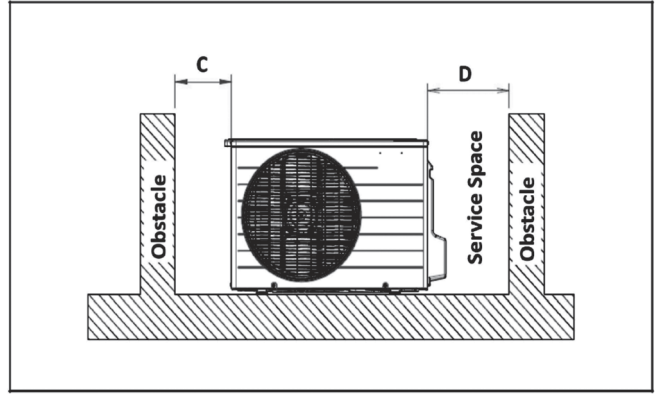
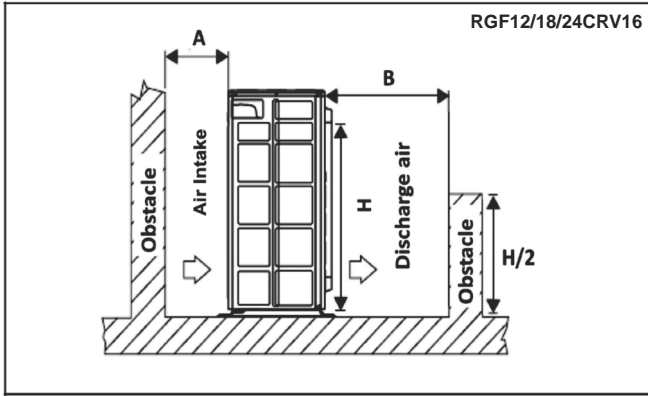


- The location must be well ventilated, so that the unit can draw and distribute plenty of air thus lowering the condensing temperature.
- A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.
- A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.
- A place where the hot air discharge and operating sound level will not annoy the neighbours.
- The location must not be susceptible to dust or oil mist.

**Caution:** If the condensing unit is operated in an atmosphere containing oils (including machine oils), salt (coastal area), sulphide gas (near hot spring, oil refinery plant), such substances may lead to failure of the unit.

# INSTALLATION CLEARANCE

When two or more outdoor units are installed in a location, they must be positioned such that one unit will not be taking the hot discharge air from another to avoid hot air short circuiting. This also applies when two or more units are installed one above the other. Below are the installation clearance guidelines:

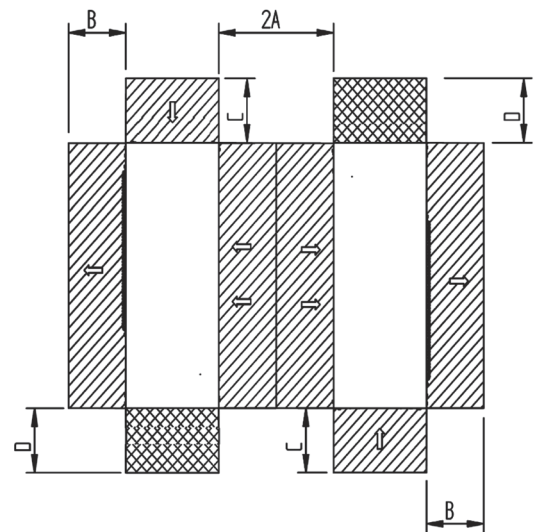
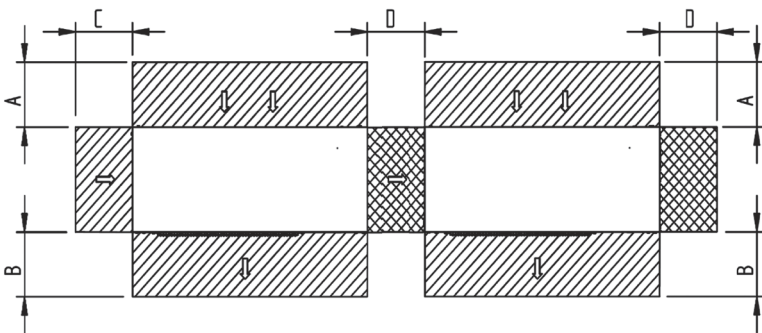


Minimum Distance (mm)

Models	A	B	C	D
RGF12/18/24CRV16	300	1000	300	500
RGF30/36CRV16 RGF42/48CRY16	500	1000	1200	1000

**NOTE:** If there is any obstacle higher than half, of the unit's height (H), please allow more space than the figure indicated in the above table.

## Horizontal air discharge



### LEGEND

- SPACE FOR AIR FLOW
- SPACE FOR SERVICE

## REFRIGERANT PIPING

### Maximum Pipe Length And Maximum No. Of Bends

When the pipe length becomes too long, both the capacity and reliability will drop and as the no. of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the capacity. As a result the compressor may fail. Always choose the shortest path and follow the recommendations as tabulated below:-

### Field piping

To ensure satisfactory operation and performance, the following points should be noted for the field piping arrangements of the complete refrigerant cycle.

- a) Liquid loops or oil traps must be provided accordingly to the position of the outdoor and the indoor units (depending on whether the indoor unit is above or below the outdoor unit).
- b) Field supplied sight glass must be assembled and mounted as shown in the figure.

Always choose the shortest piping path and follow the recommendations as shown below:

		FDBF - RGF (Indoor - Outdoor)			FDMF - RGF (Indoor - Outdoor)			
		Indoor	18	24	30	36	42	48
Model	Indoor	12	18	24	30	36	42	48
	Outdoor	12	18	24	30	36	42	48
Max. allowable length, m		20	20	20	20	20	30	30
Max. allowable elevation, m		10	10	10	10	10	15	15
Max no of bends		6	6	6	6	6	8	8
Liquid pipe size, mm/(in)		6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
Gas pipe size, mm/(in)		12.70 (1/2")	12.70 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
Refrigerant (Kg/7.5 M Pipe Length)		0.720	0.68	1.16	1.41	2.235	1.92	1.835

\* Keep minimum 7.5m pipelength during installation.

### Equivalent length for various fitting (meter)

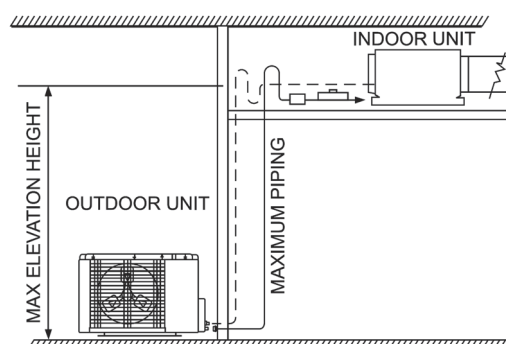
Pipe Size	L joint 	Trap bend 
3/8" (OD9.52mm)	0.18	1.3
1/2" (OD12.7mm)	0.20	1.5
5/8" (OD15.9mm)	0.25	2
3/4" (OD19.1mm)	0.35	2.4
7/8" (OD22.2mm)	0.40	3
1" (OD25.4mm)	0.45	3.4
1 1/8" (OD28.6mm)	0.50	3.7
1 3/8" (OD34.9mm)	0.60	4.4

Notes:

1. Equivalent Piping length is obtained with actual length of gas piping.
2. 90° bend of piping is equivalent to L joint.

### Caution:

1. Our guarantee on performance of our air-conditioners is strictly revoked if the height, length and/or the number of bends of the refrigerant piping system installed is beyond the limit above.
2. Bendings must be carefully made so as not to crush the pipe. Use a pipe bender to bend a pipe as far as possible.

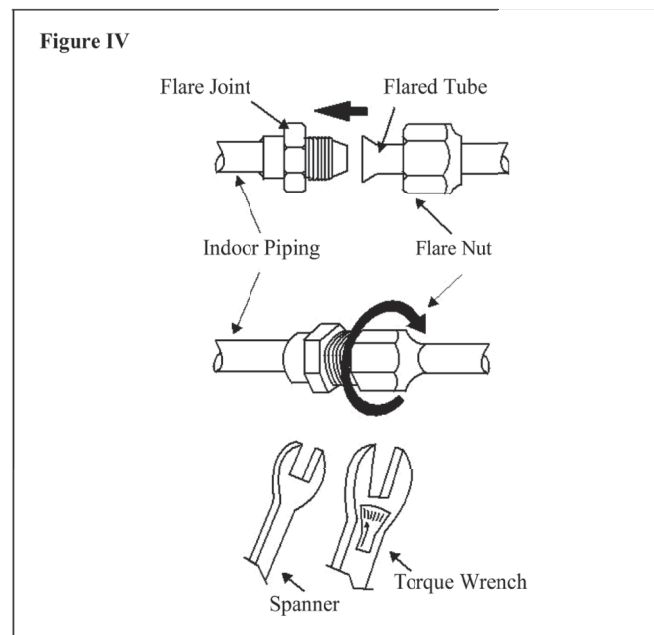
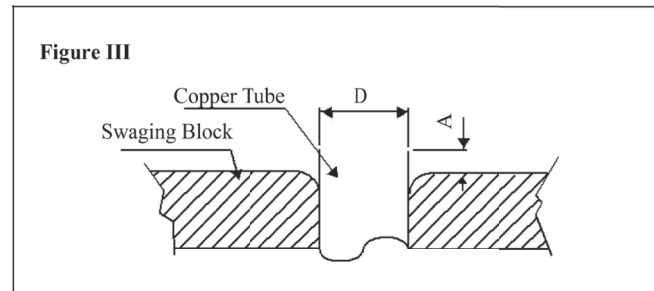
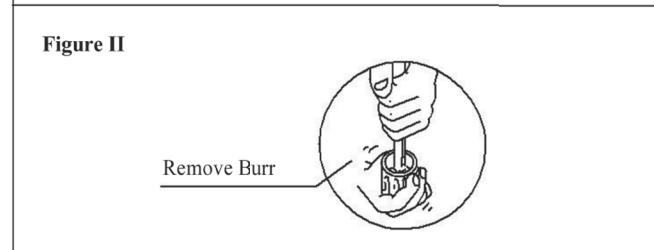
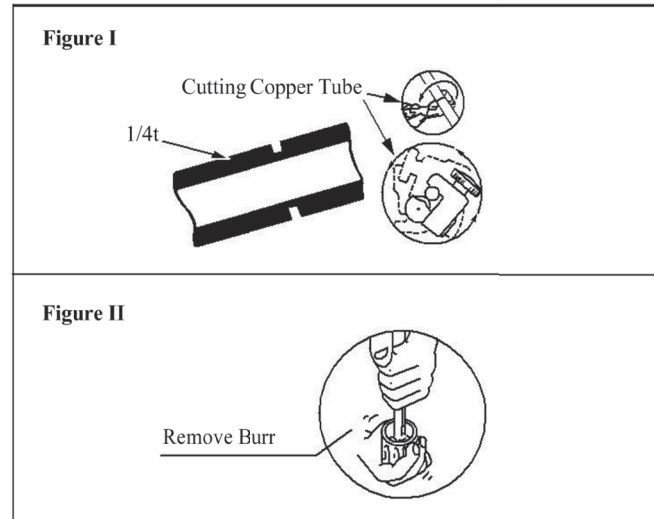


## Piping Works And Flaring Technique

- Do not use contaminated or damaged copper tubing. If any pipings, evaporator or condenser had been exposed or had been opened for 15 seconds or more, the system must be vacuumed. Generally, do not remove plastic, rubber plugs and brass nuts from the valves, fittings, tubings and coils until it is ready to connect suction or liquid line into valves or fittings.
- If any brazing work is required, ensure that the nitrogen gas is passed through coil and joints while the brazing work is being done. This will eliminate soot formation on the inside walls of the copper tubings.
- Cut the pipe stage by stage, advancing the blade of the pipe cutter slowly. Extra force and deep cut will cause more distortion on the pipe and thus extra burr. See Figure I.
- Remove burrs from cut edges of the pipes with remover as shown in Figure II. This will avoid unevenness on the flare faces which will cause gas leak. Hold the pipe on top position and burr remover at lower position to prevent metal chips from entering the pipe.
- Insert the flare nuts, mounted on the connection parts of both the indoor unit and outdoor unit, into the copper pipes.
- The exact length of pipe protruding from the top surface of the swaging block is determined by the flaring tool. Refer Figure III.
- Fix the pipe firmly on the flare die. Match the centers of both the flare die and the flaring punch, and then tighten the flaring punch fully.

### Piping Connection To The Units

- Align the center of the piping and tighten the flare nut sufficiently with fingers. Refer Figure IV.
- Finally, tighten the flare nut with the torque wrench until the wrench clicks.
- When tightening the flare nut with the torque wrench, ensure that the tightening direction follows the arrow indicated on the wrench.
- The refrigerant pipe connection are insulated by closed cell polyurethane.



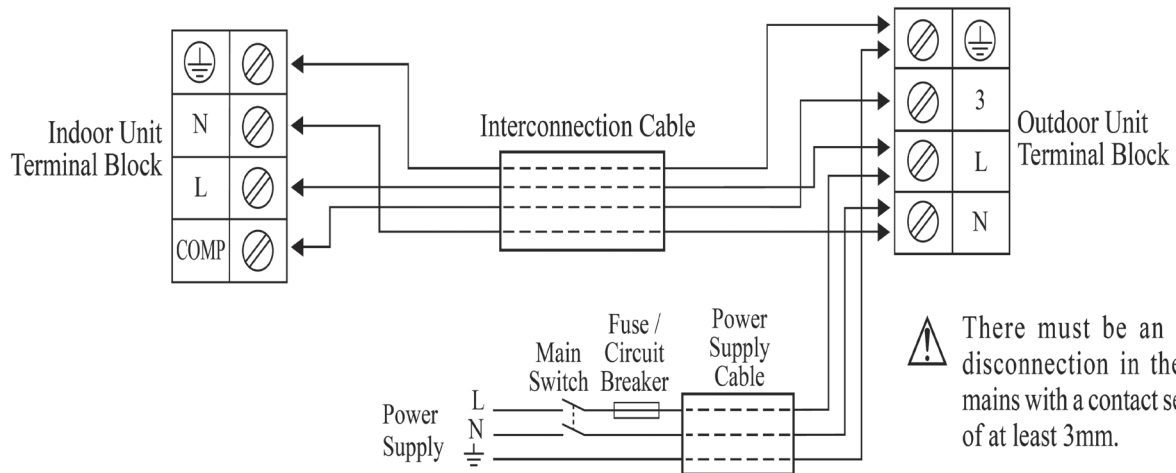
Pipe Size (mm/in)	Torque, Nm/(ft-lb)
6.35 (1/4")	18 (13.3)
9.52 (3/8")	42 (31.0)
12.70 (1/2")	55 (40.6)
15.88 (5/8")	65 (48.0)
19.05 (3/4")	78 (57.6)

Ø Tube, D		A (mm)	
Inch	mm	Imperial (Wing-nut Type)	Rigid (Clutch Type)
1/4"	6.35	1.3	0.7
3/8"	9.52	1.6	1.0
1/2"	12.70	1.9	1.3
5/8"	15.88	2.2	1.7
3/4"	19.05	2.5	2.0

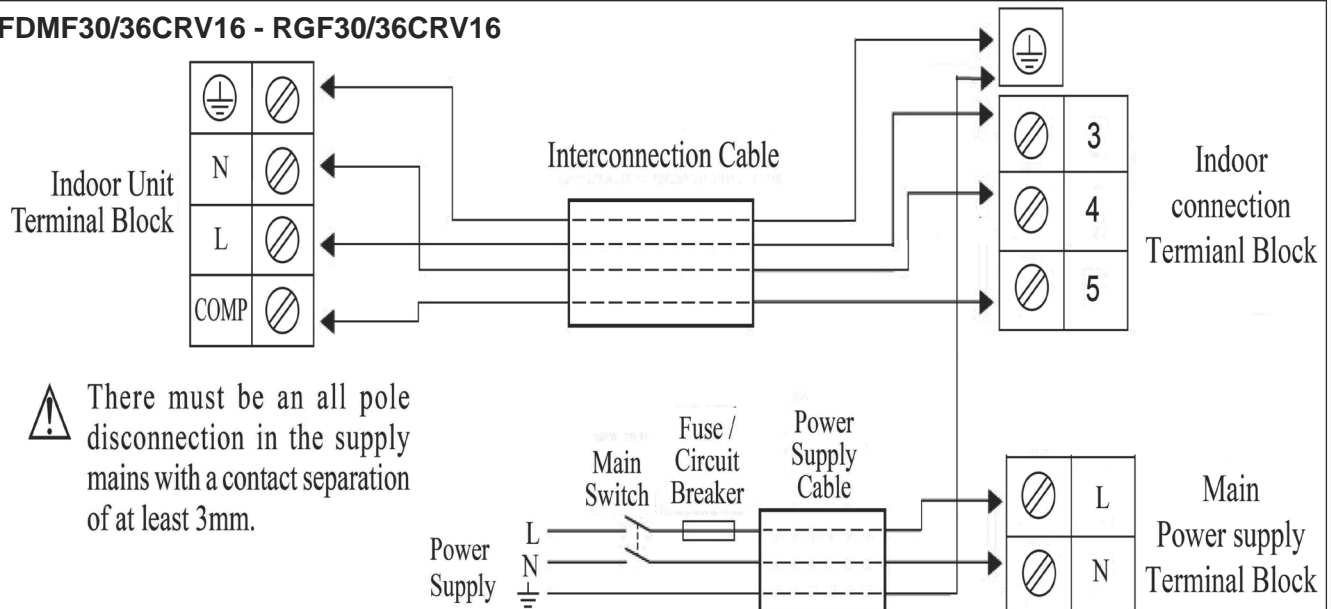
## ELECTRICAL CONNECTION

- IMPORTANT:** \* These values are for information only, they should be checked and selected to comply with the local and/or national codes and regulations. They are also subjected to the type of installation and size of conductors.
- \*\* The appropriate voltage range should be checked with data label on the unit.

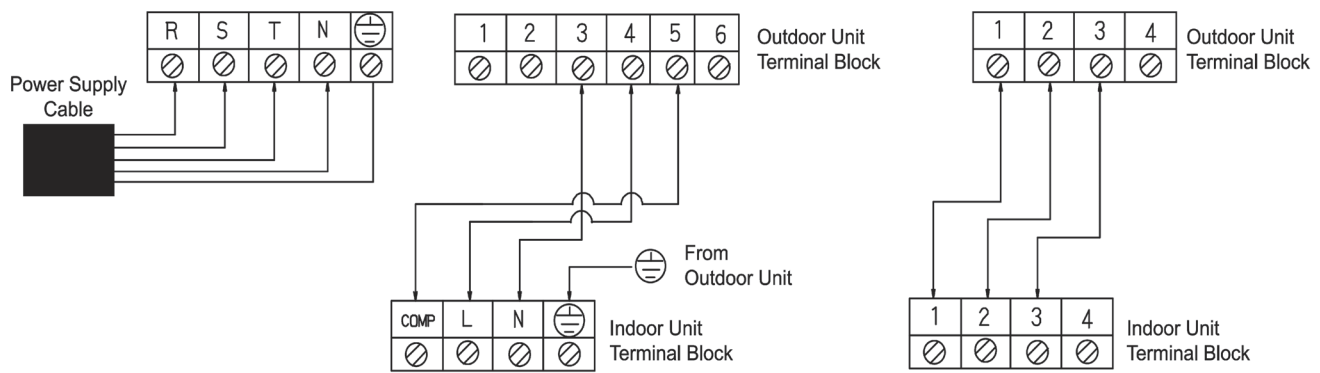
### FDBF12/18/24CRV16 - RGF12/18/24CRV16



### FDMF30/36CRV16 - RGF30/36CRV16



### FDMF42/48CRV16 - RGF42/48CRY16



		FDBF - RGF (Indoor - Outdoor)			FDMF - RGF (Indoor - Outdoor)				
Model	Indoor	12	18	24	30	36	42	48	
	Outdoor	12	18	24	30	36	42	48	
Voltage Range	Indoor	230 V/1 Ph/50 Hz/⊕							
	Outdoor	230 V/1 Ph/50 Hz/⊕					415 V/3 Ph/50 Hz/⊕		
Power supply cable size		sq.mm	1.5	2.5	2.5	4.0	4.0	4.0	4.0
Number of conductors			3	3	3	3	3	3	3
Interconnection cable size		sq.mm	1.5	2.5	2.5	1.0	1.0	1.0	1.0
Number of conductors			4	4	4	4	4	7	7
Recommended fuse/circuit breaker		A	15	15	20	32	32	32	32

## OVERALL CHECKING

Ensure the following, in particular:-

1. The unit is mounted solidly and rigid in position.
2. Piping and connections are leak proof after charging.
3. Proper wiring has been done (see fig below).

Drainage check:- Pour some water into left side of drain pan (If drainage is kept on the right side of the unit as per site conditions)

• Test run:

1. Conduct a test run after water drainage test and gas leakage test.

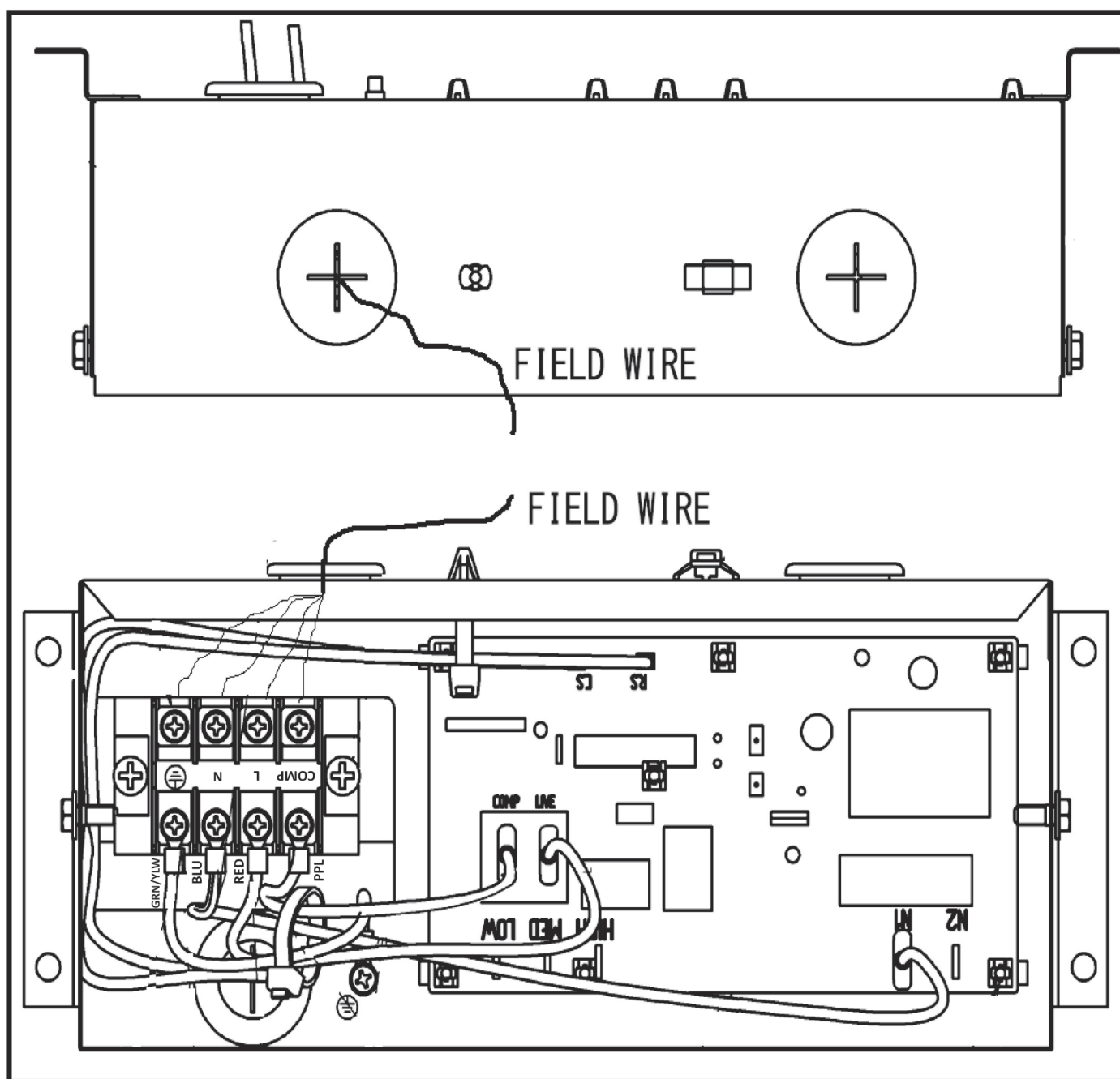
2. Watch out for the following:-

- a) Is the electric plug firmly inserted into the socket?
- b) Is there any abnormal sound from unit?
- c) Is there smooth drainage of water?

• Check that:

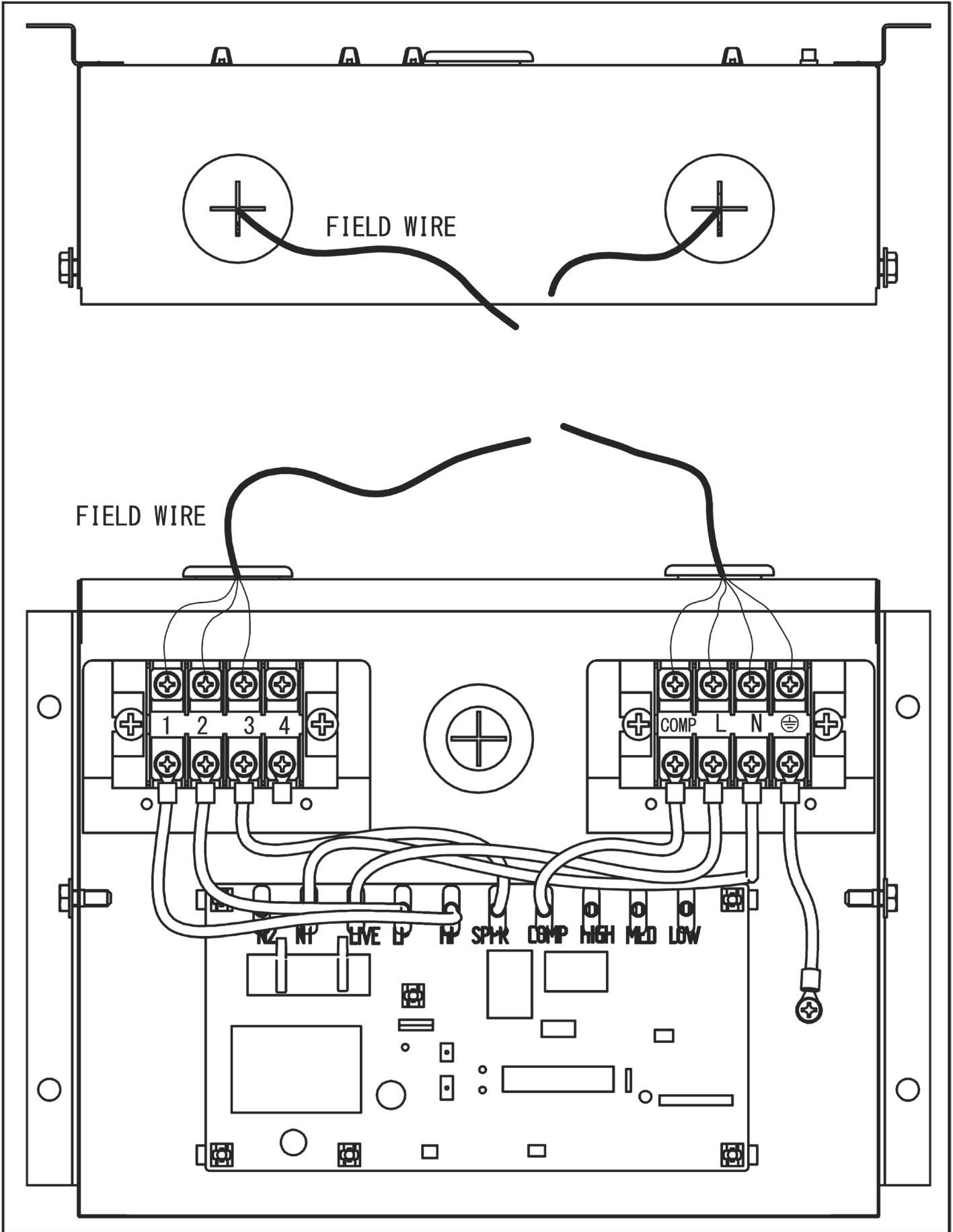
1. Condenser fan is running, with warm air blowing off the condensing unit.
2. Evaporator blower is running and discharge cool air.
3. The remote controller incorporates a 3 minute delay in the circuit. Thus, it requires about 3 minutes before the outdoor condensing unit can start up.

**Model: FDBF12/18/24CRV16 / FDMF30/36CRV16**





Model: FDMF42/48CRV16



## VACUUMING AND CHARGING

### Vacuum The Piping And The Indoor Unit

Except for the outdoor unit which is pre-charged with refrigerant, the indoor unit and the refrigerant connection pipes must be vacuumed because the air containing moisture that remains in the refrigerant cycle may cause malfunction of the compressor.

- Remove the caps from the valve and the service port.
- Connect the center of the charging gauge to the vacuum pump.
- Connect the charging gauge to the service port of the 3-way valve.
- Start the vacuum pump. Evacuate for approximately 30 minutes. The evacuation time varies with different vacuum pump capacity. Confirm that the charging gaugeneedle has moved towards -760mmHg.

#### Caution

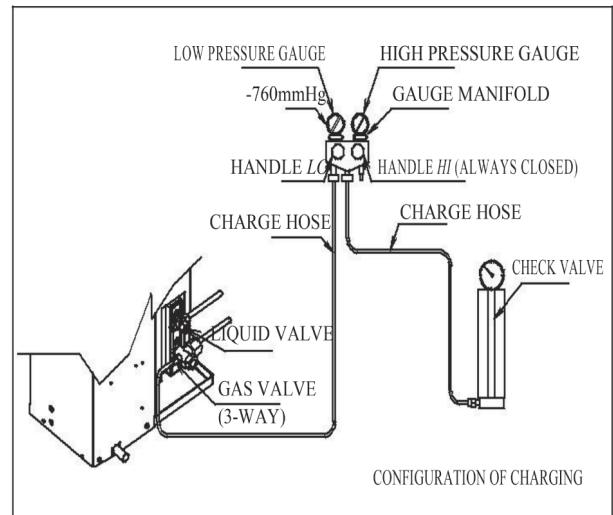
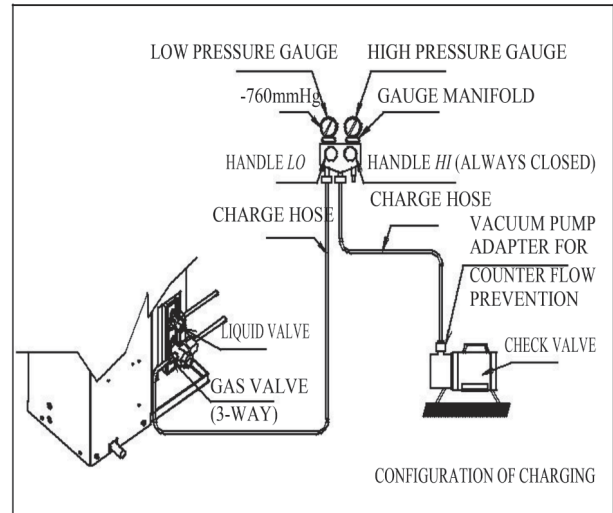
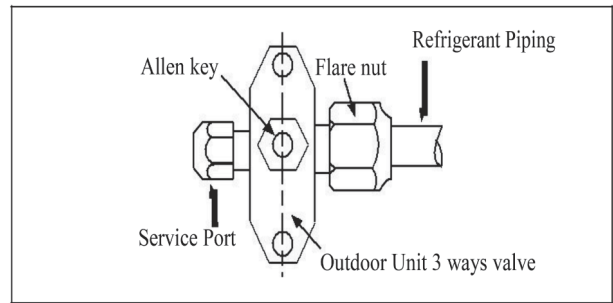
- If the gauge needle does not move to -760mmHg, be sure to check for leakage at flare type connection of the indoor and outdoor unit and repair the leak before proceeding to the next step.
- Close the valve of the changing gauge and stop the vacuum pump.
- In RGF12/18/24, open the suction valve and liquid valve (in anti-clockwise direction) with 5mm key whereas in RGF30/36/42/48/54 open the suction valve and liquid valve (in anti-clockwise direction) with 6mm and 4mm key respectively.

### Charge Operation

This operation must be done by using a gas cylinder and a precise weighing machine.

The additional charge is topped-up into the outdoor unit using the suction valve via the service port.

- Remove the service port cap.
- Connect the low pressure side of the charging gauge to the suction service port center of the cylinder tank and close the high pressure side of the gauge. Purge the air from the charging hose.
- Start the air conditioner unit.
- Open the gas cylinder and low pressure charging valve.
- When the required refrigerant quantity is pumped into the unit, close the low pressure side and the gas cylinder valve.
- Disconnect the service hose from service port. Put back the service port cap.



## ADDITIONAL CHARGE

The refrigerant is pre-charge in the outdoor unit. If the piping length is more than 7.5m then use the additional charge value as indicated in the table.

**Additional refrigerant charge [g] per additional 1m length as tabulated (for R32 models)**

Indoor	FDBF12/18/24CRV16	FDMF30/36/42/48CRV16
Outdoor	RGF12/18/24CRV16	RGF30/36CRV16 RGF42/48CRY16
Additional charge [g/m]	20	25

Example:

FDBF18 & RGF18 with 13m piping length, additional piping length is 5.5m. Thus,

Additional charge = 5.5[m] x 20[g/m]

= 110[g]

**Note:** The additional refrigerant charge amount recommended is a guideline for longer piping application. The actual charge required may be different from the guideline due to different application and variation in site conditions.

## SPECIAL PRECAUTIONS WHEN DEALING WITH R32 UNIT

R32 is a new HFC refrigerant which does not damage the ozone layer. The working pressure of this new refrigerant is 1.7 times higher than conventional refrigerant (R22), thus proper installation / servicing is essential.

- Never use refrigerant other than R32 in an air conditioner which is designed to operate with R32.
- POE-SP32 / RM-LP56EG oil is used as lubricant for R32 compressor, which is different from the mineral oil used for R22 compressor. During installation or servicing, extra precaution must be taken not to expose the R32 system too long to moist air. Residual oil in the piping and components can absorb moisture from the air.
- To prevent mischarging, the diameter of the service port on the flare valve is different from that of R22.
- Use tools and materials exclusively for refrigerant R32. Tools exclusively for R32 are manifold valve, charging hose, pressure gauge, gas leak detector, flare tools, torque wrench, vacuum pump and refrigerant cylinder.
- As an R32 air conditioner incurs higher pressure than R22 units, it is essential to choose the copper pipes correctly.
- If the refrigerant gas leakage occurs during installation / servicing, be sure to ventilate fully. If the refrigerant gas comes into contact with fire, a poisonous gas may occur.
- When installing or removing an air conditioner, do not allow air or moisture to remain in the refrigerant cycle.

Minimal equipment is required for field charging. The minimum equipment required to do satisfactory job is:-

Set of service gauges  
Hoses  
Vacuum pump

Vacuum gauge  
Scales  
Thermometer

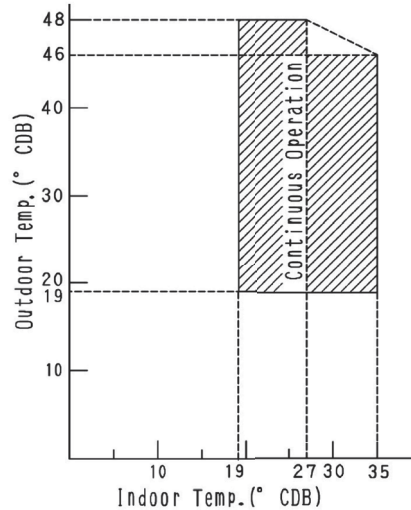
The proper refrigerant charge should follow the volume as recommended by manufacturer and recommendation should be followed by the installer.

### Caution for refrigerant leaks

This system uses R32 as refrigerant. Care must be taken to ensure that air conditioning facilities are installed in a room which is sufficiently large. This assures that the maximum concentration level of refrigerant gas is not exceeded, in the unlikely event of major leak in the system and this in accordance to the local applicable regulations and standards.

## STANDARD OPERATING CONDITIONS

### Cooling



**NOTES:**

The graph is based on the following conditions:  
 Equivalent piping length: 7,5m  
 Level difference : 0m  
 Air Flow Rate : High

## AUTO RANDOM RE-START FUNCTION

If there is a power cut when the unit is operating, it will automatically resume the same operating mode when the power is restored. (Applicable only to units with this feature)

## SERVICE AND MAINTENANCE

Service Parts	Maintenance Procedures	Period
<b>Indoor air filter</b>	<ol style="list-style-type: none"> <li>1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with a neutral cleaning detergent.</li> <li>2. Rinse the filter well and dry before placing it back onto the unit.</li> <li>3. Do not use gasoline, volatile substances or chemicals to clean the filter.</li> </ol>	At least once every 2 weeks. More frequently if necessary.

## TROUBLESHOOTING

If any malfunction of the air conditioner unit is noted, immediately switch off the power supply to the unit. Check the following fault conditions and causes for some simple troubleshooting tips.

Fault	Causes/Action
1. The compressor does not operate 3 minutes after the air conditioner unit is started.	- Protection against frequent starting. Wait for 3 to 4 minutes for the compressor to start operating.
2. The air conditioner unit does not operate.	- Power failure, or the fuse needs to be replaced. - The power plug is disconnected. - It is possible that your delay timer has been set incorrectly. - If the fault persists after all these verifications, please contact the air conditioner unit installer.
3. The air flow is too low.	- The air filter is dirty. - The doors or windows are open. - The air suction and discharge are clogged. - The regulated temperature is not high enough.
4. Discharge air flow has bad odour.	- Odours may be caused by cigarettes, smoke particles, perfume etc. which might have adhered onto the coil.
5. Condensation on the front air grille of the indoor unit.	- This is caused by air humidity after an extended long period of operation. - The set temperature is too low, increase the temperature setting and operate the unit at high fan speed.
6. Water flowing out from the air conditioner unit.	- Switch off unit and call dealer.
7. Hissing air flow sound from the air conditioner unit during operation.	- Refrigerant fluid flowing into the evaporator coil.
8. Room Temperature Sensor Fail display on Remote ( r S F).	- If sensor is short / open / not connected, it will be considered as sensor fail. It will automatic be reset when Room sensor is corrected.
9. Indoor Antifreeze sensor Fail display on Remote ( CSF1).	- If sensor is short / open / not connected, it will be considered as sensor fail. It will automatic be reset when Indoor Antifreeze sensor is corrected.
10.HP Error display on Remote (HP1).	- If discharge pressure is very high or over the limit Then high pressure switch (HP),cut off the Compressor. - This is caused by condenser fan does not work. - Ambient temperature is very high, above the limit. - The Error will be Auto reset ,but in case we get 3 error with in 40 min, system will go in manual reset mode.
11.LP Error display on Remote(LP1).	- If Suction pressure is too low or below the limit then low pressure switch (LP),cut off the compressor. - The Error will be Auto reset ,but in case we get 3 error with in 40 min, system will go in manual reset mode.
12.SPPR Error display on Remote (SPPr) .	- SPPR failure this is caused by phase absence, phase reverse, unbalance, under/over voltage.This fault is auto reset when SPPR Corrected.
13.Airflow Error display on Remote (AF).	- This is caused by the IDU fan faulty (current < 0.1 amp) in FDBF 12/18/24CRV16, FDMF30/36CRV16 model & (current <0.5 amp) in FDMF42/48CRV16 model. - The Error will auto reset after 5 min. If get 3 error with in 20 min, system will go on manual reset mode.
14.Communication Failure (C-Er)	- This is caused by Communication wire break or faulty - The Error will be Reset after Changing ok Communication wire
15. Indoor Antifreeze Activation on remote ( df1)	- If indoor coil tube temprature Reaches $\leq 1$ deg C 1. Check Unit Airflow for any Restriction ( Air filter Block ) 2. Low gas charge / Refrigerant circuit partial Blockage.

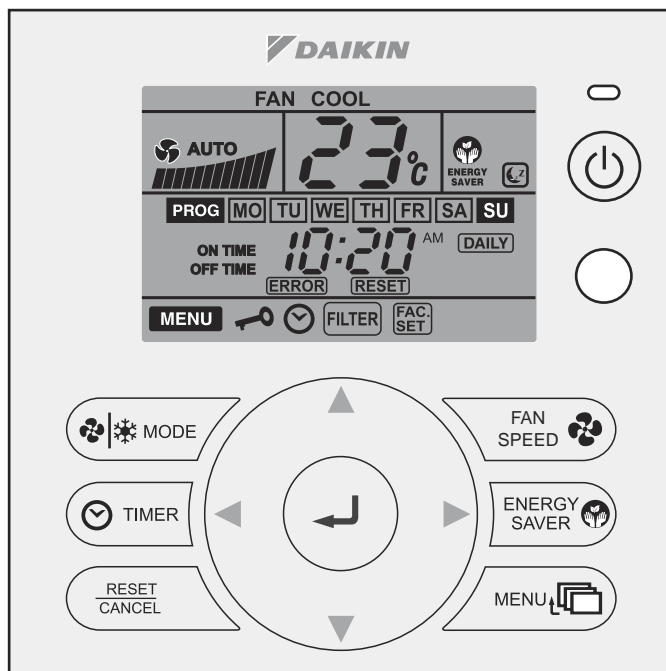
If the fault persists, please call your local dealer /serviceman.



**DAIKIN**

## OPERATION MANUAL

# CEILING CONCEALED R-32 SPLIT TYPE AIR-CONDITIONER



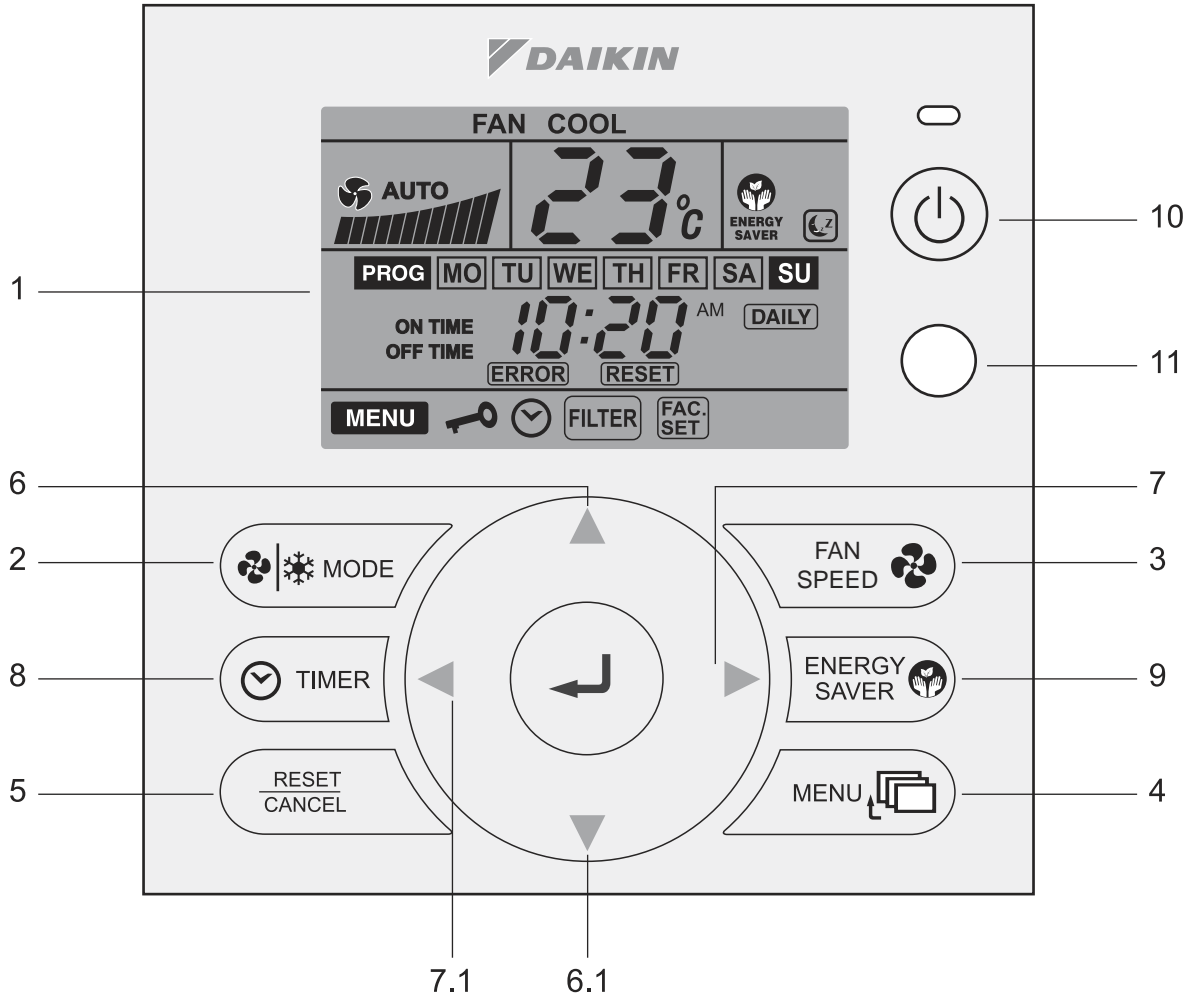
### MODELS

**FDBF12CRV16**  
**FDBF18CRV16**  
**FDBF24CRV16**  
**FDMF30CRV16**  
**FDMF36CRV16**  
**FDMF42CRV16**  
**FDMF48CRV16**







# SLM Controller Indication



## OPERATING INSTRUCTION

### 1. TEMPERATURE (LCD Display)

- To Display the ambient temperature set by the user. press “ UP” or “ DOWN” Keys to increase or decrease the set temperature. The setting range is between 16°C to 32°C

### 2. MODE

- To display the selected operating mode: Cool Mode/Fan Mode



### 3. FAN

- To display the selected ventilation speed: LOW/MED/HIGH. Automatic selection for speed, whereby the speed is automatically adjusted according to the room temperature in only cool mode.

### 4. MENU MODE

- Press the menu key “MENU” symbol and all option of menu gets “ON”
- MENU can have following option:
  - 1) Key Pad Lock.
  - 2) Clock Setting.
  - 3) Filter reset.
  - 4) Factory Reset







#### Key Pad Lock.

To lock keypad, press Menu Key, MENU symbol and other symbol will get “ON” . Only  this symbol will blink which indicates that user can toggle the lock keypad status. On pressing Enter key  user can lock or unlock keypad.

If lock is activated, “ON/OFF, FAN SPEED, MODE & MENU” Key will be active and Menu Mode will have only Options to unlock keypad.

If invalid key is pressed on lock activation ,  symbol flashes 3 times to indicate that keypad is locked


#### Clock Setting:-



To change clock timings and day, press “MENU” Key. In Menu mode, reach to -CLOCK symbol by left and right key and can enter in clock setting mode by pressing  Enter-key when clock symbol blinks. On enter in clock setting mode ,other options of Menu Mode will get cleared from screen and  &  will start blinking, change day with Left or Right key. Press Enter to set day. On set, Selected day will get “ON” and “HOUR” of clock will start blinking. On press LEFT/RIGHT key and Switch between HOUR&MINUTES. Blinking of hour/minute will show that it can be changed by UP/DOWN Key. When press Enter Key in this mode, clock gets set with set Hour and minute and gets exit from this mode with  clock symbol “ON” with clock time on  this window.

- Note: 1) To exit from clock setting mode ,press RESET/CANCEL Key at any stage of above  
2) AM and PM will change when Hour changes from 12 to 1.




#### Filter cleaning Reminder:-

In Menu mode , reach to “Filter reset” symbol by left and right key and can reset by enter key.

System shows  symbol in blinking format which indicates a filter clean reminder after 200 Hrs of fan run.

To reset filter clean reminder, reach to  symbol and press  key.

#### Factory Reset:-

To change clock timings and day, press “MENU” Key. In Menu mode, reach to -symbol by left and right key and can do Factory Reset by pressing  -Enter key when  symbol blinks.

On Factory Reset , below setting gets applied:

- Temp- 24°C
- Mode-Cool
- Fan Speed-High
- Filter Timer is reset to Zero.

7 days Programmable timer- All set timers will get cleared and will get “-:--”and timer active will also get “OFF”. Temperature, mode and fan speed will get display for 2 sec on display.

## 5. RESET/CANCEL

Press this key in current operation reset or cancel .

## 6 6.1 TEMPERATURE SETTING

Temperature can be changed by “▲ UP” or “▼ DOWN” Keys .

These keys will be used for changing timers and clock in timer or clock setting mode. These keys will not Change set-temperature in timer or clock setting mode.

### 7.7.1 RIGHT /LEFT

Press this key to move the cursor left or right and move to other options.

## 8. TIMER

When presses “TIMER” Key, **PROG** **MO** **TU** **WE** **TH** **FR** **SA** **SU** and **DAILY** will appear for 2 seconds and after that **PROG** **MO** will start flashing which shows enter in MONDAY Timers. For other days move to other days by LEFT/RIGHT Key.

There is 1 On-Timers & 1 Off-Timer for any day of week, with added “Daily” feature.

(a) Press Enter to set day. On set, selected day and **ON TIME** will get “ON” and “HOUR” of Timer will start that it blinking. On press LEFT/RIGHT key switch between HOUR & MINUTES. Blinking of hour/minute can be changed by UP/DOWN Key.

(b) On set/ cancel on-timer, **OFF TIME** symbol will get ON and user can set/cancel off-timer with same way as on-timer.

After setting the Timer's , **PROG** **MO** **TU** **WE** **TH** **FR** **SA** **SU** and **DAILY** will appear for 2 seconds and after that **PROG** **MO** will start flashing which shows user can enter in MONDAY Timers. For other days user can move to other days by LEFT/RIGHT Key.

(c) After Sunday we get option of DAILY .we can set timers of daily in the same way as we did for other days.  
Note:

- (1) If “Daily” is selected then only “Daily” Timer will be effective for every Day.
- (2) On set of any timer, time will be shown for 2 sec on screen.
- (3) On cancel of any timer “--:--” will be shown for 2 sec on screen.
- (4) AM and PM will change when Hour changes from 12 to 1.

## 9. ENERGY SAVER

Energy Saver Mode can be set/ cancel by “ENERGY SAVER” Key.

Energy Saver can be set only in Cool mode. In Cool mode MODE. Set Temp 26 Degree and Fan Speed – MEDIUM, in Energy Saver Mode.

## 10. ON/OFF SWITCH

Press once,the air conditioner unit start.

Press again,the air conditioner unit stop.

## 11. IR SENSOR

This feature is applicable with wireless remote.

[For wireless remote fuctions, please refer the operation manual of wireless remote.]

**PROTECT THE ENVIRONMENT FROM E-WASTE ( GUIDELINES)**

Meaning of E-waste under E-Waste (Management) Rules,2022 (E-waste Rules)  
-Waste electrical and electronic equipment, whole or in part of reject from their manufacturing and repair process, which are intended to be discarded.

Our product is RoHS compliant.



**Don't dump Electrical and Electronic Products in Garbage Bins**

**DO'S & DONT'S**

<b>DO'S</b>	
Run and maintain the air conditioner as per the instructions given in the operation / instruction manual	✓
Ensure that an authorised person repairs your air conditioner	✓
Call our local authorised dealer or our toll free number to dispose your air conditioner	✓
Contact an authorised dealer in case of installation or de-installation	✓
Consult our local authorised dealer or our toll free number on the life span of the air conditioner	✓

<b>DONT'S</b>	
Do not try to repair your air conditioner on your own	✗
Do not sell or dispose your air conditioner or parts to an unauthorised Kabbadi wala / Scrap Dealer / Ragpickers	✗
Do not dismantle your air conditioner on your own	✗
Do not get your air conditioner or any parts repaired by an unauthorised person	✗
Do not dispose off the E-waste in landfills	✗
Do not use the air conditioner as furniture after its use	✗

**Customer Contact Center : 011-4031 9300/1860-180-3900**

**For further information visit us at [www.daikinindia.com](http://www.daikinindia.com)**

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