

# Cassette | Ductable | Tower







Country of Origin: Thailand





# Our Technologies, Your Tomorrow

## Established Since - 1884

## Future and technology for Air conditioning

Research and technological innovation have been the goals of Mitsubishi Heavy Industries for over a century and these have been translated into the excellent results in the air conditioning products.

The perfect harmony between energy, technology and innovation is manifested in the production of air conditioners designed to meet the engineering needs of the residential, commercial and industrial sectors. State of the art solutions applied to top quality to guarantee well being, energy saving and quality life.

For a better tomorrow



Harmonizing People and technology on a global scale

As a global manufacturer, the fields in which Mitsubishi Heavy Industries work, knows no limits, offering more than 700 products that fall in all sectors and meet different needs and lifestyles, with the aim of reconciling public needs and technological innovation. With its eyes on the future, MHI will continue to traverse uncharted lands.







#### Vision for a Global Perspective

"Our determination to conduct business on a global scale is supported by, and reflected in, a fundamental philosophy: utilization of inherent business acumen & technological expertise accumulated over more than 40 years to assess changes that occur with the passage of time while continuously developing previously unexplored areas.



Shri. Jeevan Singh Chouhan Chairman

# Company Philosophy

We firmly believe that simple & direct method of operation brings about confidence in doing business more cohesively which strengthens our relation with our Dealers, our Channel partners in growth. Our increased involvement & deep collaboration with our Channel Partners makes the business simpler."



Shri. Aman Chouhan Managing Director

Mitsubishi Heavy Industries- IAPL Group is a Strategic alliance of Mitsubishi Heavy Industries - Mahajak Airconditioners Co. Ltd. & IAPL Group, for sales, marketing & service of Mitsubishi Heavy Ind. Heavy Duty Room, Commercial Airconditioners & VRF Systems in India.

IAPL Group with its nationwide network has supported a wide array of projects including residential & large commercial establishment, Offices, Business establishments, Hotels, Hospitals, Schools, Commercial Complexes, Industries, etc. We have participated in projects for large Air Conditioning Systems requiring SYSTEM INTEGRATION of imported air conditioning equipment as per the international standards lay down by our principal- M/s. Mitsubishi Heavy Industries Thermal Systems Ltd. We ensure much superior quality of workmanship with advanced engineering skills. We have full - fledged team of qualified engineers and technical staff in the air- conditioning divisions to meet all kind of requirements. IAPL has consistently provided Channel Partners with timely and high value service, competitively priced products without sacrificing quality.

# Mitsubishi Heavy Industries Japan - Global Activity

#### 136 years of technological innovations



Yataro Iwasaki founder of Mitsubishi



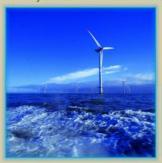
1884: the Nagasaki shipyards at the time the company was founded



- · Ultra-High Steel Stacks
- · Refuse Incineration Plants
- . Night Soil Treatment Plants
- · Electrostatic Precipitators
- · Flue Gas Desulfurization
- · Fluidized Incinerators
- CFC Collecting Equipment



quality products through untiring technological research and development. From new energy development and environmental concerns to the exploration of space, with the advent of the 21st century MHI is confronting a variety of issues to ensure the realisation of a society in which there is harmony between mankind and technology.





- · Crude Oil Storage Barges
- LNG Tanks
- · Boilers & Turbines
- · Oil Production Plants
- . Contra-Rotating Propellers
- Thermal Power Plants
- · Combined Cycle Plants
- Fuel Cells
- Water Turbines
- Wind Turbines
- · Geothermal Power Plants
- PWR Nuclear Power Plants
- Uranium Enrichment
- Equipment
- Co-Generation Systems



- · Steel Bridges
- Penstocks
- Desalination Plants
- · Physical Distribution Equipment
- Engines





WILLIAM WANTED

- Unloader & Container Cranes · Mechanical Parking Facilities
- · Integrated Automated Storage
- Rubber & Tyre Machinery
- · Monorail Cars
- New Transportation Systems
- · Passenger Boarding Bridges
- Toll Collection Machine Systems
- · Forklift Trucks
- Helicopters
- · Aircraft
- · Railway Maintenance Equipment
- LNG Carrier
- · Container Ships



RESOURCES/ENERGY FRANSPORTATION TRANSPORTATION





# Our Technologies, Your Tomorrow

#### Established Since - 1884



- · Chemical Plants
- · Wind Tunnel/Experiment Equipment
- · Casting Machines
- Strip Mill
- · Cement Plant
- · Stepless Variable Speed Gears
- · Industrial Robots
- · Injection Moulding Machines
- Pulp & Paper Machinery
- · Corrugation Machines
- · Box Making Machines
- · Machine Tools



- · Ceiling Recess Packaged Air
- · Automotive Air Conditioners
- · Residential Use Split Air Conditioners
- · Refrigeration Units
- . Dry Cleaning Machines
- · Food Machinery
- · Cruise Ships
- Multi-purpose Dome
- Stage Machinery Systems







- Cable Layer
- Printing Machinery



- · Oceanographic Research
- · Deep Submergence Research Vehicles
- · Communications Satellite Rockets
- · Space Transportation
- · Rockets & Engines



LESSEN INFORMATION STSTEM DEFENCE



- Submarines
- · Naval Vessels
- Jet Fighters
- Helicopters
- Missiles
- · Tanks & Infantry Fighting Vehicles



#### HYBRID+

# Next Generation High Performance Airconditioning

The PAC range from Mitsubishi Heavy Industries Thermal systems is ideal for air conditioning offices, shops, restaurants, and bars ... as well as other commercial environments. The versatility of the PAC range. offers you a wide selection of models in function of your installation needs. The modern and attractive design of our indoor units is harmoniously integrated in any atmosphere creating a pleasant and relaxing environment.

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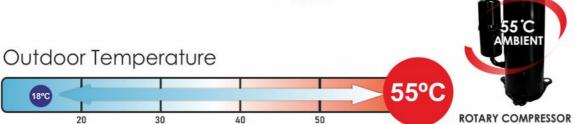




# NON - INVERTER PAC

	CAPACITY							
TYPE	Ton Range	1.5	2.0	3.0	3.7			
	KW Range	5.0	7.1	10.5	13.0			
The state of	Indoor	FDT50CNV-\$6	FDT71CNV-S6	FDT100CSV-S6	FDT125CSV-S6			
CASSETTE	Outdoor	FDC50CNV-\$6	FDC71CNV-S6	FDC100CSV-S6	FDC125CSV-S6			
	Indoor	FDUM50CNV-\$6	FDUM71CNV-S6	FDUM100CSV-S6	FDUM125CSV-S6			
DUCTABLE	Outdoor	FDC50CNV-S6	FDC71CNV-\$6	FDC100CSV-S6	FDC125C\$V-\$6			
<u>*************************************</u>	Indoor	-	FDF71CNV-\$6	1	FDF125CSV-S6			
TOWER	Outdoor	-	FDC71CNV-\$6	ı	FDC125C\$V-\$6			
OUTDOOR UNIT								

# Design Condition







HYBRID+ Cassette

HYBRID AC gives 1.5 times bigger area coverage compared to Conventional AC & still gives electricity saving



8 Meters Air Flow



#### **ECONOMY MODE**



#### **ENERGY SAVING MODE**

Temperature is set to optimize to save energy without losing comfort.

#### COMFORT



#### **Automatic Operation**

This function automatically selects the required cooling function based on the current room conditions.



#### Motion sensor (optional)

This sensor detects human activity and shifts the temperature setting according to the amount of activity in the room.

#### **AIRFLOW**



#### Individual Flap Control System

Wired remote controller allows you to set the upper and lower limit positions of the flap at each air outlet individually, providing you with complete control over air flow inside the room.



#### Draft prevention setting (optional)

Draft Prevention setting provides a comfortable air flow without any draft feeling. The remote control can be used to instantly to suppress any warm or cool drafts. This accurately assists how air flow is directed out of the indoor unit.



#### Vertical Auto Swing

The vertical louvers on your unit will move up and down continuously during operation. This function allows you to set the up/down swing position of the louver to your preferred operation angle.



#### Automatic Fan Speed

The unit's on-board microcomputer continuously monitors the room's air temperature and adjusts the air flow automatically.

#### SERVICE FUNCTION



#### **Self Diagnostics**

The internal microcomputer automatically runs a diagnostic of the system in the event of a malfunction. This enables your authorised dealer to isolate and repair any issues.



#### **Built in Drain Pump**

The built-in drain pump, allows greater flexibility with installation, offering a great solution for applications with limited space.



#### Improved Serviceability

The fan unit (comprised of impeller and motor) is easily accessible from either the side or bottom of the unit and can be slide out for easy maintenance.

#### **TIMER**



#### Sleep Timer

This function allows you to set a pre-determined amount of time between 30 and 240 minutes that your unit will operate before switching off.

#### CONVENIENT



#### **Function Switch**

From the seven available functions on the unit, this function allows you to set two functions to operate automatically.



#### Favorite setting

Operation mode, set temperature, fan speed and air flow direction automatically adjust to the programmed favourite setting.



#### Air Filter

The air filter in the unit traps and removes airborne dust particles and other allergens to provide you with a clean air.



#### Filter Clean Indicator

This warning alerts you as to when the filter needs to be cleaned.



#### **Outside Air Intake Provision**

This function provides clean fresh air into the room through the external air intake, avoiding the constant recycling of internal air.

#### Indoor Units

When using RC-EX3A (Remote control), functions with symbol or available. However, for RC-E5 (Remote control), functions \* with are not available. **ENERGY SAVING MODE Economy Mode** Temperature is set to optimized to save energy without losing comfort. This function automatically selects the required cooling function based 80 **Automatic Operation** on the current room conditions. This sensor detects human activity and shifts the temperature setting according Motion sensor (optional)\* Wired remote controller allows you to set the upper and lower limit positions of the flap at each 0 Individual Flap Control air outlet individually, providing you with complete control over interior air flow. Draft Prevention setting provides a comfortable air flow without any draft feeling. The remote control can be used to instantly suppress any warm or cool drafts. This accurately assists how air flow is directed out of the indoor unit. Draft prevention setting \* 4 Air The vertical louvers on your unit will move up and down continuously during operation. This function allows you to set the up/down swing position of the louver to your preferred operation angle. 7/1 Vertical Auto Swing The unit's on-board microcomputer continuously monitors the room's air temperature and 801 **Automatic Fan Speed** adjusts the air flow automatically. This function allows you to set a pre-determined amount of time between 30 and 240 minutes Ö 0 0 Sleep Timer that your unit will operate before switching off. Set your unit to turn on and off automatically on a weekly basis to suit your usual room Ö 0 0 **Weekly Timer** usage on each day From the seven available functions on the unit, this function allows you to set two functions to operate automatically. 8 Function Switch \* Operation mode, set temperature, fan speed and air flow direction automatically adjust to the 0 Favorite setting \* programmed favorite setting. Select the language \* Set the language to be displayed on the remote control. The air filter in the unit traps and removes airborne dust particles and other alleraens to @ 0 Air Filter provide you with a clean air. 1 Filter Clean Indicator This warning alerts you as to when the filter needs to be cleaned. 0 0 This function provides clean fresh air into the room through the external air intake, avoiding the 111 0 **Outside Air Intake** constant recycling of internal air. The internal microcomputer automatically runs a diagnostic of the system in the event of a -₩-**Self Diagnostics** 0 0 0 malfunction. This enables your authorised dealer to isolate and repair any issues The built-in drain pump, allows greater flexibility with installation, offering a great solution for applications with limited space. 1004 **Built in Drain Pump** 0 The fan unit (comprised of impeller and motor) is easily accessible from either the side or bottom of 0 Improved Serviceability the unit and can be slid out for easy maintenance.

# HYBRID+ Cassette





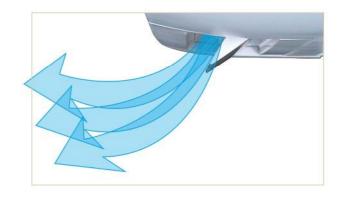
# Aerodynamic Super Turbo Fan

CFD (computational fluid dynamics), used in blade shape design of jet engines, has been applied to the design of air channels of the Super Turbo Fan of the Cassette AC to develop the ideal air channels system for air movement. The airflow created in this system by Large Diameter Slim Turbo Fan with WIDE AREA aerodynamic Vanes enables large volumes of air to be blown with minimum power consumption, yet the air flow is uniform, quiet & with longer reach. CFD used in the design of the Super Turbo Fan produces an even laminar air flow to ensure highest air flow at the lowest noise levels. DC motor makes the turbo fan movement energy efficient, vibration free & hum free.

# DC Motor Noise Free Hum Free Energy Efficient

#### Aerodynamic Vane Design

Improved Technology for quieter Operation
Our new design aerodynamic vane blade &
Super Turbo Fan Can achieve low noise by
reducing the pressure fluctuation in the indoor unit.





# Draft Prevention Panel



#### Maximum comfort with minimal draft New FDT controls flaps with more flexibility

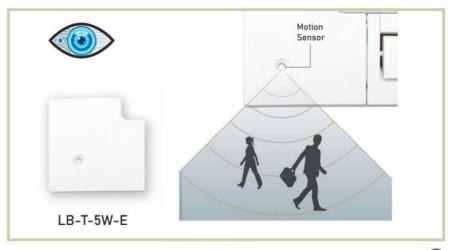
Draft Prevention Panel Prevents cold draft blown directly on the user. It is possible to set Draft Prevention Panel for each air outlet. User can position Draft Prevention Panel panels by using the remote controller only (RC-EX3A, RCN-T-5AW-E2).



## Motion Sensor



Motion sensor is equipped in the panel corner and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



# Serviceability & Workability

#### Easy and quick installation and maintenance

#### Indoor unit is easily positioned and installed







#### Quick installation and maintenance



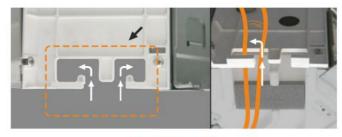
 The control box and bell mouth can be removed together. Easy access to impeller and fan motor.



2 New shape of path of wiring.

FDT

New shape of path gives easy wiring work for installation.

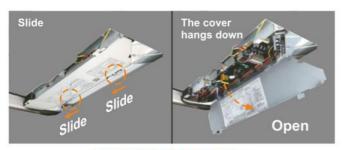


Easy wiring work

3 No need to remove screws to open the controller cover.

FDT

It is possible to loose and slide open the cover without removing the screws. This prevents the cover from falling and causing damage on site.

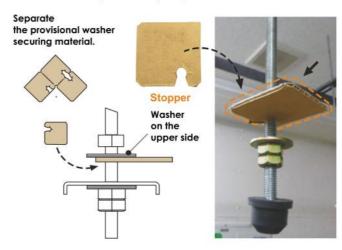


No need to remove screws



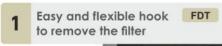
Safer installation by stopper of washer FDT

When unit is installed with hook between washers, this stopper helps to install the unit safely, without adjusting washer.



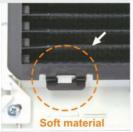
#### Good help for installation and maintenance

For smooth and easy working



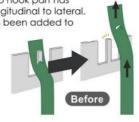
Hook of soft material helps to remove the filter without dust spreading.

Press the filter tab to the outside and remove the filte

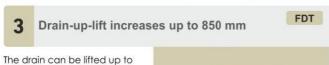


# 2 Securely fix the corner lid by strap

The direction of the strap hook part has been changed from longitudinal to lateral. Furthermore, a barb has been added to the hook pin to prevent the strap from coming off.

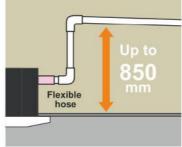






The drain can be lifted up to 850 mm from the ceiling surface

	Previous	New
FDT	700	850



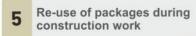
FDT

#### 4 New port to check drain water flow

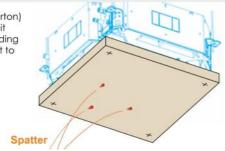
A water supply port has been provided in the piping lid for easier testing of the drain water flow.

(The port is usually sealed with a rubber cap.)





Package material (carton) help to protect the unit from unexpected welding spatter or coming dust to the new unit.





More flexible outlet for ducting

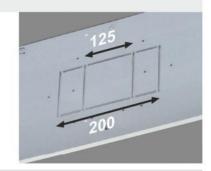
FDT

FDT

Both  $\phi$ 125 and  $\phi$ 200 (oval shaped) are available.

125 200





7

#### Easy check of drain pan

Easy inspection of the condition of the drain pan is possible by removing only the corner lid.



Remove corner lid. Remove drain cap cover and check the condition. It is necessary to clean-up, firstly remove the rubber stopper to drain water out and secondly remove the drain cap.







Clean up the area around the drain pump port.

FDT



FROST PREVENTION FOR HEAT EXCHANGER

INDOOR FAN MOTOR PROTECTION

ABNORMALITY OF OUTDOOR UNIT

DRAIN WATER SPIL PROTECTION

COMPRESSOR OVERHEAT PROTECTION

SIGNAL TRANSMISSION ERROR PROTECTION



SENSOR DISCONNECTION PROTECTION

**ROOM TEMPERATURE SENSOR** 

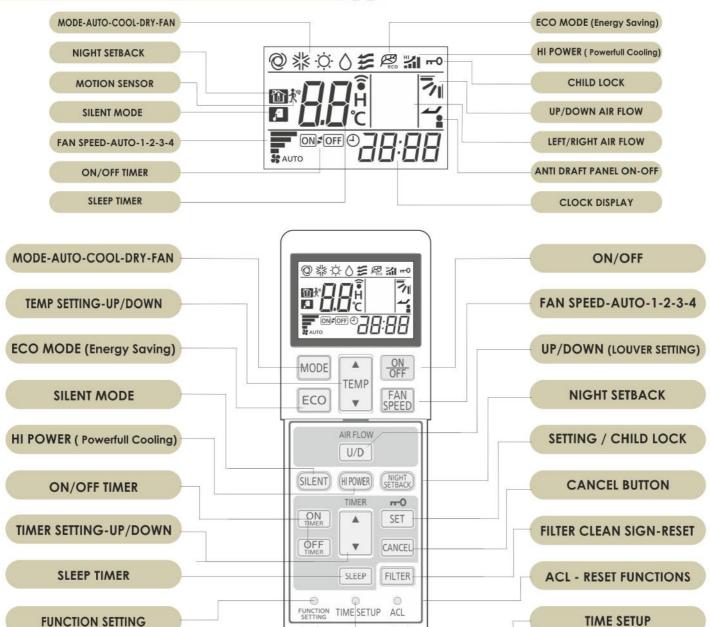
INDOOR HEAT EXCHANGER TEMPERATURE SENSOR

OUTDOOR HEAT EXCHANGER TEMPERATURE SENSOR

DISCHARGE PIPE TEMPERATURE SENSOR

**OUTDOOR AIR TEMPERATURE SENSOR** 

# WIRELESS REMOTE CONTROLLER RCN-E2 Standard





Presence of humans and the amount of motion are detected by a motion sensor to perform various controls.

#### Select Enable / Disable Motion sensor control



Enable / Disable



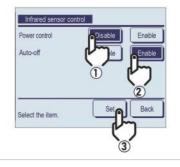
Select Enable / Disable for the motion sensor of the indoor unit connected to the R/C.

#### Select Enable / Disable per control

Power control



Enable / Disable



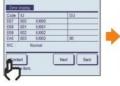
# Contact company & Error display

If any error occurs on the air conditioner, the "Unit protection stop" is indicated on the message display.











# LCD - WIRED REMOTE CONTROLLER

Simple use with advanced settings

# RC-EX3A

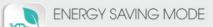
#### **Function Switch**

The function switch allows you to select and set two functions that you desire among the seven available functions shown. These functions can be used by simply pressing the button after they are set, allowing you to use your preferable functions immediately.



#### HIGH POWER MODE

High Power Mode achieve excessive cooling / heating capacity for 15 minutes to quickly adjust the room temperature to a comfortable level.



Temperature is set to optimized to save energy without losing comfort.

### QUIET MODE

Outdoor unit starts to operate quietly by activating this mode. The time of this mode can be set in conjunction with Indoor Silent Timer.

#### M HOME LEAVE MODE

Home leave mode maintains the room temperature at a moderate level.

#### FAVOURITE MODE

Operation mode, set temperature, fan speed and air flow direction are automatically adjusted to the programmed favorite setting.



#### FITTER SIGN

Announces the due time for cleaning the air filter.

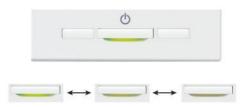
#### Favourite Mode

Operation mode, set temperature, fan speed and air flow direction are memorized and allocated to two buttons that can be operated by one touch.

# e.g. Operation mode operation mode cooling Dry Auto Fan speed Fan Settemp operation mode cooling Settemp

# Adjustable Brightness of the Operation Lamp

The brightness of the operation lamp behind Run/Stop switch can be adjusted by 10 stages.

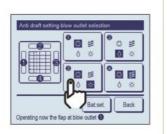


#### Draft Prevention Setting

(only FDT series)

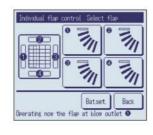
User can enable/disable the motion of panel with anti draft for each blow outlet for each operation mode. This function can be set while operating.





# Easy Modification of Air Flow

User can visually confirm and set the direction of louvres using the visual display on the remote controller.





# HYBRID+ Cassette 4 Way

Design Comfort Control











#### REMOTE CONTROL



#### Wired (Optional)



RC-E5





RC-EX3A RCH-E3

#### ECONOMY COMFORT



Energy









AIRFLOW



Auto Swing



Draft Prevention (optional)



Self Diagnostics

Operation O

Sleep Timer

(optional)

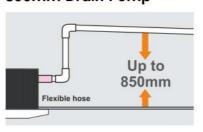
Filter Clean Indicator

Fan

Outside Air Intake

Flap Control (Wired Remote)

#### 850mm Drain Pump







MITSUBISHI

# Individual Flap Control System

Wired Controller (optional)





position

Max swing range

Selor

The wireless rento the Individuo

Selected

upper

The wireless remote control is not applicable to the Individual flap control system.

1

(3)

Selected

lower position

RC-E5

RC-EX3A

According to room conditions, four directions of air flow can be controlled individually by utilizing the flap control system. Individual flap control is available even after installation. Flap can swing within an upper and lower flap range position which can be selected with a wired remote control









For person who is far from the indoor unit

For both persons who feeling hot or cold



Can cool both the kitchen and the guests

#### Draft Prevention Panel (optional)

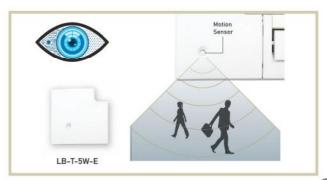
Draft Prevention Panel Prevents cold draft blown directly on the user. It is possible to set Draft Prevention Panel for each air outlet.

User can position Draft Prevention Panel panels by using the remote controller only (RC-EX3A, RCN-T-5AW-E2).



# Motion Sensor (optional)

Motion sensor is equipped in the panel corner and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



Draft Prevention Panel

(optional)

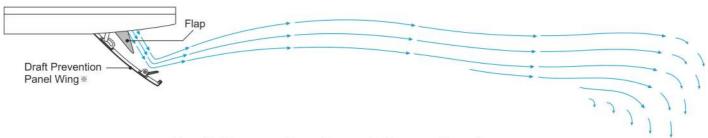
Keep maximum comfort with minimal draft: New FDT control flaps with more flexibility.





The Good Design Award is Japan's only comprehensive design evaluation and recommendation initiative, originating with the "Good Design Products Selection System" founded in 1957.

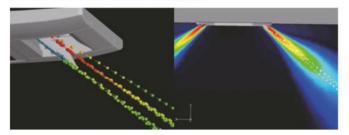
It is now a global design award with participation from numerous Japanese and international companies and organizations. The "G Mark", the symbol of the Good Design Award, is known widely as a symbol of excellent design. (FDT)



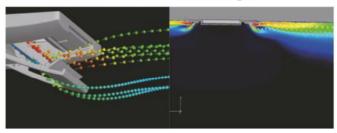
#### Draft Prevention Panel Operation Image



#### Draft Prevention Panel off



#### **Draft Prevention Panel Working**



Draft Prevention Panel provides a comfortable airflow without any draft feeling. Whether cooling or heating a room, the remote control can be used to instantly suppress any warm or cool drafts. This accurately assists how air flow is directed out of the indoor unit.

# Motion Sensor Eye





## (optional)

Energy saving operation by detecting human movement 3 Step Control

1 Power Control

New motion sensor (option) detects human activity. Energy saving control is achieved by shifting set temperature according to detected amount of activity.

2 Stand by
Unit will go on stand-by mode when no activity is detected.
When unit will detect activity again, unit will re-start operation automatically.

3 Auto Off Unit will go off automatically when no activity is detected for 12 hours.

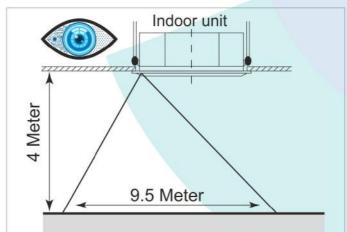
#### Optional for Models



**FDT** 



**FDUM** 



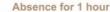


# Low human activity (in cooling) Power Control



High human activity (in cooling)





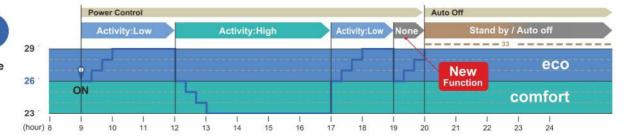


More 12 hours absence



# in cooling

Set temperature



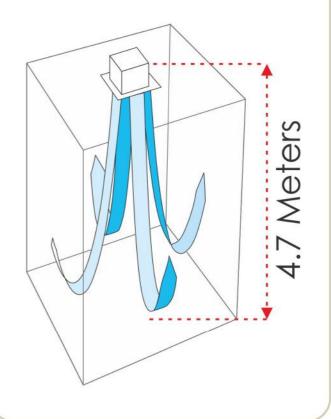
Operation mode and Control of Motion sensor		operation	Operation mode				
		ort operation	Auto	Cool		Dry	Fan
	Human	Low	Cooling +3	+3	+3	_	_
Power Control **1	activity	High	Cooling -3	<b>-3</b>	-3	-	-
	い。道	None	Cooling +3	+3	-3	-	_
Auto Off **2	\			•	•		•

<sup>%1</sup> Set temperature is revised maximum  $\pm3\%$  at Cooling mode by detecting heat volume movement.



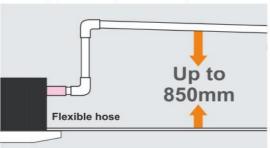
# Suitable for High Ceilings

The Powerful blowout carries comfortable air flow to the floor even in high ceiling applications. It is ideal for high ceiling offices, stores, etc., with a wide, uniform air flow throughout the room.



#### 850mm Drain Pump

Drain can be discharged upwards up to 850mm from the ceiling srface, allowing a piping layout with a high degree of freedom. Thanks to the 185mm flexible hose, equipment supports easy workability.



#### Panel Select Pattern (optional)



(3) Corner panel with motion sensor LB-T-5W-E

Standard Panel

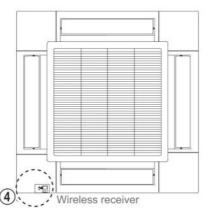
T-PSA-5AW-E

(4) Corner panel with wireless receiver RCN-T-5AW-E2

Installation position of Wireless kit and Motion sensor kit

(5)

Motion sensor



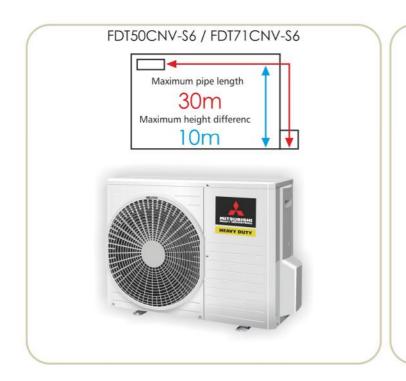
8 patterns of panel are available.

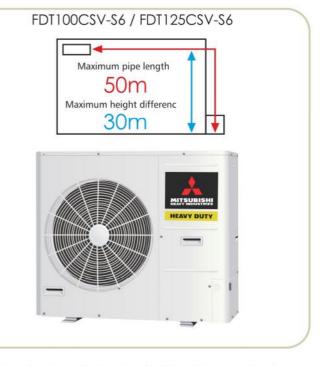
- (1) Standard Panel only
- Standard Panel with (1)+(3)corner panel with motion sensor
- Standard Panel with (1)+(4)corner panel with wireless receiver
- Standard Panel with 1)+(5) corner panel with motion sensor & corner panel with wireless receiver
- (2) **Draft Prevention Panel only**
- **Draft Prevention Panel with** (2)+(3)corner panel with motion sensor
- **Draft Prevention Panel with** (2)+(4)corner panel with wireless receiver
- **Draft Prevention Panel with** 2)+(5) corner panel with motion sensor & corner panel with wireless receiver
- \* Wireless receiver and Motion sensor can be installed to the position as shown

# SPECIFICATIONS //

SPECIFICATIONS			HYBRID - CEILING CASSETTE - 4WAY (R410A)				
Unit			FDT50CNV-S6	FDT71CNV-\$6	FDT100CSV-S6	FDT125CSV-S6	
Model	Indoor Unit		FDT50CNV-\$6	FDT71CNV-S6	FDT100CSV-S6	FDT125CSV-S6	
	Outdoor Unit		FDC50CNV-S6	FDC71CNV-S6	FDC100CSV-S6	FDC125CSV-S6	
Super Tropical - Return cooled Cor	mpressor		R	otary	Rotary	Scroll	
Type of AC			Heavy	Duty AC	Hybri	d AC	
Power Source			1 Phase, 220 - 240 V, 50 Hz 3 Phase, 380 - 440			- 440 V, 50 Hz	
		Ton	1.5	2.1	3.0	3.7	
Rated Cooling Capacity		Watts	5000	7300	10400	13000	
SM (M) 1		BTU/h	17060	24908	35485	44356	
Input Power ** (Minimum - Maximu	ım)	watts	1350 - 1550	2000 - 2250	2580 - 2880	3860 - 4160	
Rated EER / COP		W/w	3.23	3.24	3.61	3,13	
Air flow	Indoor Unit	СМН	1280 (P-Hi=1320)	1680 (P-Hi=1920)	2050 (P-Hi=2300)	2200 (P-Hi=2500)	
Long Reach Airflow Upto	Indoor Unit	Meter	3.65	4.57	5.18	5.18	
Sound Level (H/M/L)	Indoor Unit	dB(A)	39 /38/ 37/ 34	46 / 43 / 39/ 37	44 / 40 / 38 /34	44 / 41 / 39 / 36	
Louver Swing	Indoor Unit				stem Possible in Wired Contr		
Remote Control	Indoor Unit				er Included / Wired Controller Optional		
Self Diagnosis Function	Indoor Unit				S		
Filter	Indoor Unit			Anti-	acterial		
Fan	Indoor Unit		Super Turbo Fan				
DC Fan Motor Speed	Indoor Unit		Powerful - High / High / Medium / Low / Dry				
External Static Pressure E.S.P. (Pascal)#	Indoor Unit	Pa	Not Applicable				
Dimension (H x W x D)	Indoor Unit	mm		6 x 840 x 840 5 x 950 x 950	Unit: 298 x 840 x 840 Panel: 35 x 950 x 950		
(HXWXD)	Outdoor Unit		640 x 800	O (+71) x 290	845 x 970 x 370		
Weight	Indoor Unit	Kgs	25.0 (Unit:20 Panel:5.0)	27.0 (Unit:22 Panel:5.0)	30.0 (Unit:25 Panel:5.0)	30.0 (Unit:25 Panel:5.0)	
	Outdoor Unit	Kgs	40	46	79	85	
Refrigerant			4		410A		
Refrigerant Piping	Liquid/ Gas	mm	6.35 ( 1/4")	1 15.88 ( 5/8" )	9.52 ( 3/8" ) / 15.88 ( 5/8")		
Precharged Refrigerant		Kgs	1 Kgs (Upto 15mtrs.)	1.4 Kgs (Upto 15mtrs.)	2.15 Kgs (Upto 30mtrs.)	2.65 Kgs (Upto 30mtrs.)	
Charging requirement per mtrs		grams	25 grams ( Above 15mtrs upto 30 mtrs )		50 grams ( Above 30mtrs upto 50 mtrs )		
Maximum Piping Length		Mtrs	30 mtrs / 100 feet		50 mtrs / 164 feet		
Vertical Height Difference		Mtrs	Outdoor- Higher = 10 mtrs / Lower = 10 mtrs		Outdoor - Hig Lower =		
Main Power Supply to	Outdoor Unit		(3000000	2 x 3 cores ag earthing)	4 mm2 x 5 cores (including earthing)		
Connecting wiring	B/w IDU & ODU				(including earthing)	personal section of the section of t	
Area Coverage ***		Sq.Meter	15.97 - 18.58	18.58 - 25.54	25.54 - 32.51	32.51 - 44.12	

# REFRIGERANT PIPE LENGTH





<sup>\*\*</sup> Under Standard Installation & Lab Test Condition \*\*\* Check for design condition and corresponding parameters like roof / window exposed to direction sunlight, of the area to be Air- conditioned. Because of our policy of continuous improvement, we reserve the right to make changes in all specifications without any prior notice

# HYBRID+ Ductable

# Next Generation





# Aerodynamic Impeller Design

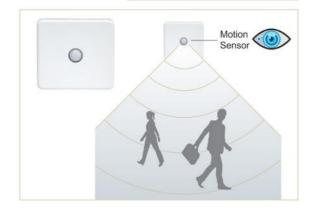
Aerodynamic design of the impeller, produces an even laminar airflow to ensure the highest air flow & air throw at the lowest noise levels.



#### Motion Sensor

(optional)

Motion sensor is equipped in separate panel and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.





# Wireless Remote Control

Infrared Wireless Remote Controller is sleek, versatile and allows you to control all the functions of your Ductable AC with ease. The large LCD display and buttons make it easy-to-understand and easy-to-use.



# Built in Drain Pump

Drain Tray with Polyurethane Ethoxyline Resin Coating



# Automatic External Static Pressure Control

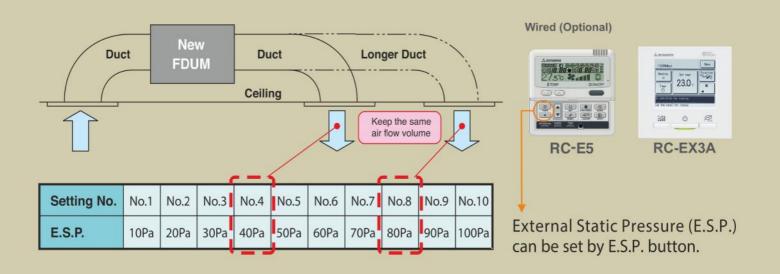
(optional)



Automatic External Static Pressure (E.S.P.) Control
Optional For Ductable AC Wired Remote Control Model RC-E5 / RC- EX3A

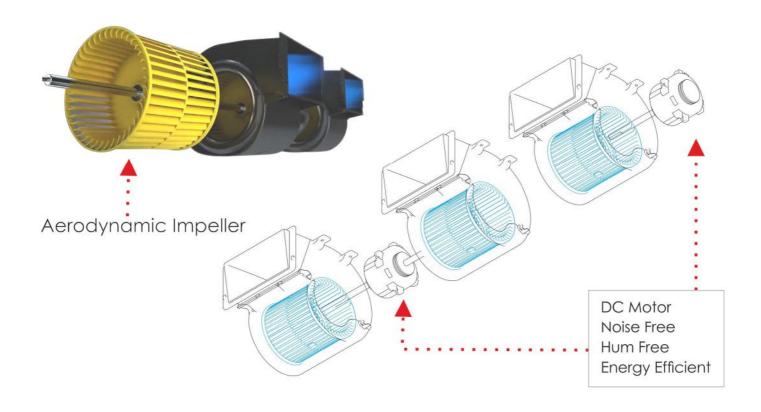
Duct design was simplified, using DC motor. The most optimum air flow volume can be achieved by this automatic control. Indoor unit will recognize external static pressure by itself automatically and keep rated air flow volume.

The External Static Pressure (E.S.P.) can be manually set on the wired remote controller. It will control the fan speed to keep rated air flow volume at each fan speed setting. You can set required E.S.P. by wired remote controller, calculated with the set air flow rate and the pressure loss of the duct.

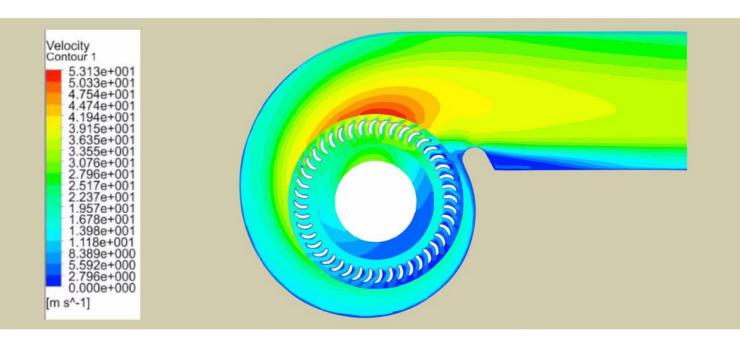


# Aerodynamic Impeller Design



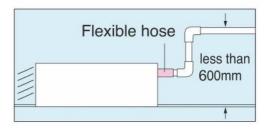


CFD (computational fluid dynamics), used in blade shape design of jet engines, has been applied to the design of air channels in the impeller of the air conditioners to develop the ideal air channels system for air movement. The air flow of the jets created in this system enables a large volume of air to be blown with minimum power consumption, yet the air flow is uniform, quiet and reaches points a long distance from the blower. With CFD used in the design of the impeller, produces an even laminar airflow to ensure the highest air flow & air throw at the lowest noise levels.



# Built in Drain Pump

600mm Drain Pump is mounted in all models. The indoor unit is completely hidden in the ceiling, so this is suitable for spaces with classy interior design & false ceiling.



600MM DRAIN PUMP





# Transparent Inspection Window

Improvement of the Serviceability Dirt condition of the bottom of a drain pan can be checked through this transparent inspection window without removing drain pan.



# Drain Tray with Polyurethane Ethoxyline Resin Coating







SPECIFICATIONS	1		HYBRID- DUCTABLE MEDIUM STATIC- FDUM SERIES (R410A)				
Unit			FDUM50CNV-S6	FDUM71CNV-S6	FDUM100CSV-S6	FDUM125CSV-S6	
Model	Indoor Unit		FDUM50CNV-S6	FDUM71CNV-S6	FDUM100CSV-S6	FDUM125CSV-S6	
	Outdoor Unit		FDC50CNV-S6	FDC71CNV-S6	FDC100CSV-S6	FDC125CSV-S6	
Super Tropical - Return cooled Co	mpressor		Rotary		Rotary	Scroll	
Type of AC			Heavy	Duty AC	Hyb	rid AC	
Power Source			1 Phase, 220	- 240 V, 50 Hz	3 Phase, 380 - 440 V, 50 Hz		
		Ton	1.5	2.0	3.0	3.7	
Rated Cooling Capacity		Watts	5000	7100	10400	13000	
		BTU/h	17060	24225	35485	44356	
Input Power ** (Minimum - Maximu	ım)	watts	1400 - 1613	2000 - 2290	2900 - 3100	4000 - 4460	
Rated EER / COP		W/w	3.10	3.10	3.10	2.91	
Air flow	Indoor Unit	СМН	600 (P-Hi=800)	1200 (P-Hi=I 440)	1950 (P-Hi=2340)	2200 (P-Hi=2880)	
Long Reach Airflow Upto	Indoor Unit	Meter	2.43	3.65	6.09	6.09	
Sound Level (H/M/L)	Indoor Unit	dB(A)	35 / 31 / 29 / 27	38 / 33 / 31 / 29	42 / 36 / 32 / 29	44 / 37 / 33 / 29	
Louver Swing	Indoor Unit				pplicable		
Remote Control	Indoor Unit		Standard - Wireless Remote Controlle		ler Included / Wired Controller Optional		
Self Diagnosis Function	Indoor Unit				Yes		
Filter	Indoor Unit		Anti- Bo	cterial Wire Mesh Filter - Opti	onal - Chargeable Extra - Procure Locally		
Fan	Indoor Unit		Centrifugal Blower				
DC Fan Motor Speed	Indoor Unit		Powerful - High / High / Medium / Low / Dry				
External Static Pressure E.S.P. (Pascal)#	Indoor Unit	Pa	Standard = 35 P	'a / Max = 100 Pa	Standard = 60 F	Standard = 60 Pa / Max = 100 Pa	
Dimension	Indoor Unit	mm	280 x 750 x 635 280 x 950 x 635		280 x 1370 x 740		
(H x W x D)	Outdoor Unit		640 x 800	(+71) x 290	845 x 970 x 370		
Weight	Indoor Unit	Kgs	34	36	53	53	
rreigili	Outdoor Unit	Kgs	42	46	79	85	
Refrigerant					R410A		
Refrigerant Piping	Liquid/ Gas	mm	6.35 ( 1/4" ) / 15.88 ( 5/8"		9.52 ( 3/8"   1 15.88 ( 5/8"		
Precharged Refrigerant		Kgs	1 Kgs (Upto 15mtrs.)	1.4 Kgs (Upto 15mtrs.)	2.15 Kgs (Upto 30mtrs.)	2.65 Kgs (Upto 30mtrs.	
Charging requirement per mtrs		grams	25 grams ( Above 15mtrs upto 30 mtrs )		50 grams ( Above 30mtrs upto 50 mtrs )		
Maximum Piping Length		Mtrs	30 mtrs / 100 feet		50 mtrs / 164 feet		
Vertical Height Difference		Mtrs	Outdoor - Higher -10 mtrs / Lower=10 mtrs		Outdoor - Higher =30 mtrs / Lower =15 mtrs		
Main Power Supply to	Outdoor Unit			2 x 3 cores g earthing )	4 mm2 x 5 cores (including earthing)		
Connecting wiring	B/w IDU & ODU			1.5 mm2 x 4 cores	(including earthing)	A CONTRACTOR OF THE CONTRACTOR	
Area Coverage ***		Sq.Meter	15.97 - 18.58	18.58 - 25.54	25.54 - 32.51	32.51 -44.12	
			0.000.000.000.000.000.000.000.000			100 CONTROL OF THE PARTY OF THE	

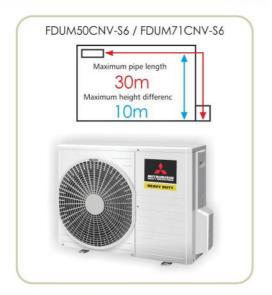
# FILTER KIT (OPTIONAL)

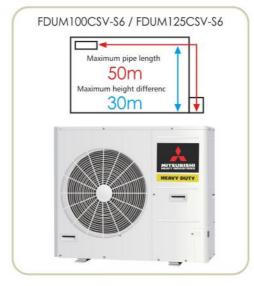
Anti- Bacterial Wire Mesh Filter -Optional - Chargeable Extra - Procure Locally



# REFRIGERANT PIPE LENGTH







# Wireless Remote RCN-KIT4-E2



<sup>\*\*</sup> Under Standard Installation & Lab Test Condition \*\*\* Check for design condition and corresponding parameters like roof / window exposed to direction sunlight, of the area to be Air- conditioned. Because of our policy of continuous improvement, we reserve the right to make changes in all specifications without any prior notice # [E.S.P. = External Static Pressure can be changed using Wired Controller - Model RC-E5 / RC-EX1A]



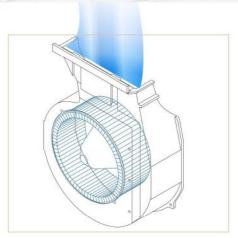
# Next Generation





# Aerodynamic Impeller Design

Aerodynamic design of the impeller, produces an even laminar airflow to ensure the highest air flow & air throw at the lowest noise levels.



# Wireless Remote Control

Infrared Wireless Remote Controller is sleek, versatile and allows you to control all the functions of your Floor Standing AC with ease. The large LCD display and buttons make it easy-to-understand and easy-to-use.





# Auto Horizontal Swing





# Easy Installation

# EASY TRANSPORTATION AND INSTALLATION WORKABILITY

Piping and drain hose connection can be selected out of 4 directions and the selection makes installation workability more effective. Due to slim design ( Depth:320mm), easy transportation and installation is possible.

#### Easy Maintenance

The surface of heat exchanger can be visible on removing the front panel. Easy cleaning of heat exchanger is possible.



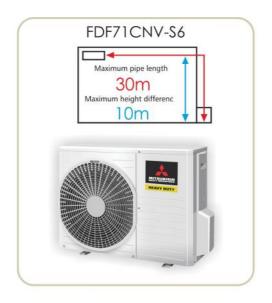


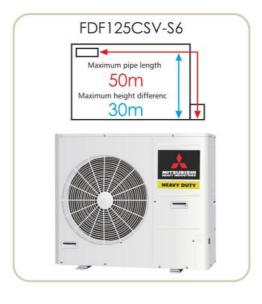


SPECIFICATIONS	7		HYBRID - TOWER AC (R410A)			
Unit			FDF71CNV-S6	FDF125CSV-S6		
Model	Indoor Unit		FDF71CNV-S6	FDF125CSV-S6		
	Outdoor Unit		FDC71CNV-\$6	FDC125CSV-S6		
Super Tropical - Return cooled Compressor			Rotary	Scroll		
Type of AC			Heavy Duty AC	Hybrid AC		
Power Source			1 Phase, 220 - 240 V. 50Hz	3 Phase, 380 - 440 V. 50Hz		
		Ton	2.0	3.70		
Rated Cooling Capacity		Watts	Watts 7100			
		BTU/h	24225	42650		
put Power ** (Minimum - Maximur	m)	watts	2300 - 2500	4000 - 4460		
Rated EER / COP		W/w	2.84	2.80		
Air flow	Indoor Unit	СМН	2250	2700		
Long Reach Airflow Upto	Indoor Unit	Meter	9.14	12.19		
Sound Level (H/M/L)	Indoor Unit	dB(A)	48 / 40 / 35	51 / 41 / 37		
Louver Swing	Indoor Unit		Yes (V	ertical)		
Remote Control	Indoor Unit		Standard - Wireless Remote Controller In	cluded + Controller Inbuit on Indoor unit		
Self Diagnosis Function	Indoor Unit		Yes			
Filter	Indoor Unit		Anti- B	acterial		
Fan	Indoor Unit		Impaler Fan			
DC Fan Motor Speed	Indoor Unit		High / Medium / Low / Dry			
External Static Pressure E.S.P. (Pascal)#	Indoor Unit	Pa	Not Applicable			
Dimension	Indoor Unit	mm	1850 × 600 × 320	1850 x 600 x 320		
(H x W x D)	Outdoor Unit		640 × 800 (+71) × 290	845 x 970 x 370		
Weight	Indoor Unit	Kgs	51	53		
Weigin	Outdoor Unit	Kgs	46	85		
Refrigerant			R410A			
Refrigerant Piping	Liquid/ Gas	mm	6.35 (1/4") / 15.88 (5/8")	9.52 (3/8") / 15.88 (5/8")		
Precharged Refrigerant		Kgs	1.4 Kgs (Upto 15mtrs.)	2.15 Kgs ( Upto 30mtrs.)		
Charging requirement per mtrs		grams	25 grams ( Above 15mtrs upto 30 mtrs )	50 grams ( Above 30mtrs upto 50 mtrs )		
Maximum Piping Length		Mtrs	30 mtrs / 100 feet	50 mtrs / 164 feet		
Vertical Height Difference		Mtrs	Outdoor- Higher= 10 mtrs / Lower= 10 mtrs	Outdoor- Higher- 30 mtrs / Lower= 15mtrs		
Main Power Supply to	Outdoor Unit		2.5 mm2 x 3 cores (including earthing)	4 mm2 x 5 cores ( including earthing )		
Connecting wiring	B/w IDU & ODU		1.5 mm2 x 4 cores (	including earthing)		
Area Coverage ***		Sq.Meter	18.58 - 27.87	37.16 - 46.45		

# REFRIGERANT PIPE LENGTH

# Wireless Remote







<sup>\*\*</sup> Under Standard Installation & Lab Test Condition \*\*\* Check for design condition and corresponding parameters like roof / window exposed to direction sunlight, of the area to be Air- conditioned. Because of our policy of continuous improvement, we reserve the right to make changes in all specifications without any prior notice



Our Motto
"Customer Satisfaction Index No.-1"





Towards A Better Future Together

#### **PRECAUTIONS**

Always get the Mitsubishi Heavy Ind. Airconditoners installed by Authorized Mitsubishi Heavy Ind. Sales & Service Channel Partners only. Do not try to install the AC either by yourself or any unauthorized dealer. Improper installation can result into non performance, low cooling, refrigerant leakage, electrical shocks. Warranty of the product shall be null & void, if not installed by an authorized Mitsubishi Heavy Ind. Sales & Service Channel Partner. In no case it will be company's responsibility if the AC unit is installed by an unauthorized dealer, is unable to perform.

**A**Hyderabad

Vijayawada

Chennai

Bengalury

Mangalore

AThrissur

Warranty of the AC unit component shall be null & void if non specified/non genuine spares are used or repaired by an unauthorized dealer.

Because of our policy of continuous improvement, we reserve the right to make changes in all specifications without notice. In case of any adverse area to be conditioned, if it is not verified by the company/dealer engineer and selection of the AC unit is made by the customer based on the specifications without taking any prior advice, then company will not be responsible for any variance in the performance of the AC unit installed.

Mitsubishi Heavy Industries- Mahajak Air Conditioners Co.Ltd. Lat krabang Industries Estate, Phase 3, 200 Moo 4, Chalongkrung Road, Lamplatiew, Lat krabang, Bangkok Thailand 10520

Sales, Service & Marketing Headquarter (India)



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