A TATA Product

VOLTAS

Split Type INVERTER Air-Conditioner

2 free service coupons inside

OWNER'S MANUAL For JZ, SZ, MZ, ZZ, IZ, CZ, GZ, AD, DZ SERIES/173V WZJ

 $Voltas\ 24x7\ Customer\ Care\ -\ 9650694555/1860\ 599\ 4555\ or\ SMS\ < AC>\ to\ 56677\ \ www.myvoltas.com$

Introduction

VOLTAS

Dear Customer,

Welcome to the Voltas family.

Congratulations for your new air conditioner and thank you for trusting Voltas and considering us. We understand what it takes to get this, and certainly there must have been lots of planning and research involved before the purchase. We reassure that what you've made is the right choice.

With over 6 decade of presence in the industry, our ACs have performed extremely well, saved electricity and the fine looks always helped them stay ahead of the competition. And that's why, we've always found our place on top of every shopper's list

To get the best performance from your Voltas AC, follow these instructions:

- Make sure that a certified executive installs the AC
- Please read the directions in this Operation Manual carefully to make your Voltas experience a brilliant one.

Accessories 1
Instruction of Users
Name of Each Part and its Function 4
Emergency Operation Key / Drain Pan5-6
Indoor Display7-9
General Feature & Replacement of Batteries
Transmitter Feature 11
Special Features/Operating Modes 12
Troubleshooting
Clean/Care/Testing Procedure
Instructions for Installation
1st Free Service Coupon
2nd Free Service Coupon
Machine Installation Coupon
Warranty Certificate
Guarantee Registration Card40
Voltas Recycling Program for E-Waste 42-45
Service Stations/Offices

Accessories

VOLTAS

S.No	Name of Accessory	Qty.
1	Mounting Plate	1
2	Mounting Plate fixing Screws M4X25	6
3	Wireless remote controller	1
4	Batteries for remote controller (AAA size)	2
5	Drain Pan-(Applicable for Heat & Cool models only)	1
6	Owner's Manual	1

VOLTAS

Please read the "Instruction Manual" carefully prior to the use of your air conditioner so as to ensure proper operations.

Instructions for Installation

• Make sure to have the professional after-sale service persons of our company or the authorized dealers to install the units before you use.

1. The units are not to be installed at places where there might be leakage of combustible gases.



In case that the leaked gas accumulates around the units, there might occur the accident of fire hazards.

After the connecting of the wires between the indoor unit and the outdoor unit, check whether the connecting is loose or not by pulling the wire with a little force.



Make sure that the earth leakage-circuit breaker



Absence of the earth leakage-circuit breaker might lead to electric shock and some other hazards.



The grounding wire on the air conditioner should be tightly connected to the ground of the power source. Improper grounding might cause electric shocks or other hazards.

Instructions for Operation

Never try to stop the operation of the air conditioner by pulling out the power supply line.



Such performance might cause electric shocks or fire hazards.

Do not operate the switch by wet



It might cause electric shocks.

Do not connect the power supply line to an intermediate connector. Use of prolonged power line is strictly forbidden. Nor is it allowed to share the same plug connector with other electric



ire hazards or other accidents.

Before the connector is plugged in, please make sure that there is no dust on it and that it is plugged fully in place

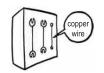
If there is dust on the plug or if the plug is not in place, it might cause electric shocks or fire hazards.

Do not press, stretch, damage, heat or modify the power line.



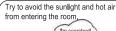
It might cause electric shocks, overheating, fire nazards, etc. If the power line wire is damaged o needs to be replaced due to some other reasons please make sure to have dealer or the authorized naintenance people to do the replacement,

Never use the fuse with incorrect capacity or any other metal wires.



Instruction of Users

VOLTAS





Do not place insecticides or paints and other flammable sprays near the air conditioner, or spray them directly at the air conditioner



Try to minimize the generation of heat during the operation of cooling.



When it is necessary to use the air conditioner and the combusting apparatuses in the same room, air ventilation has to be made from time to



Do not use combusting apparatuses in the air-conditioned room



It might lead to the incomplete combustion of thes

Prior to the maintenance of the air conditioner, please cut off the power supply first. Never do the cleaning of the units when the fan is in highspeed operations.

Do not keep exposed to the cool air/ warm air for

Check the supporting structures of



Do not insert sticks, bars or finger into

Do not clean the air conditioner with water.



any other objects on it.

Adjust the air direction correctly

Properly adjust the up/down and left/right directions of the air flow so as to get the even room temperature. health.

Do not attach, hang or stack articles on the air conditioner,



init, which will result in accidents or injuries.



Pull out the plug when the unit is not in use for long time so as to ensure

long time.

It might cause discomforts of the body, which is harmful to your

the units carefully.



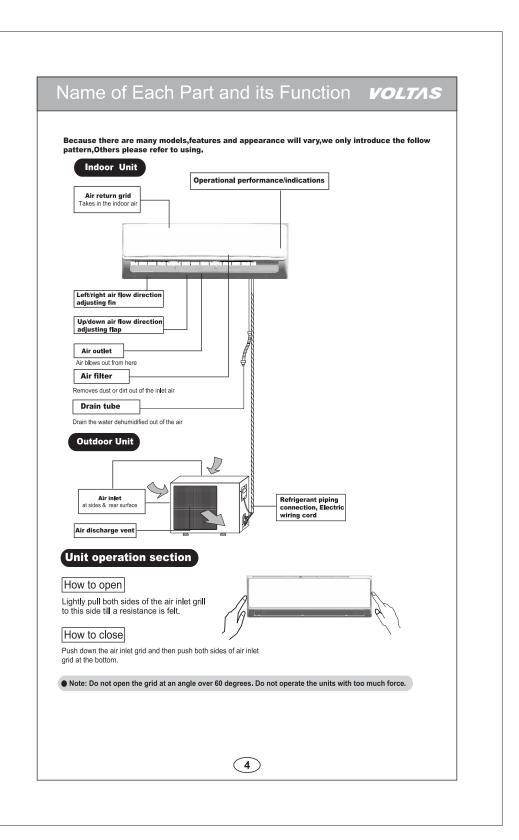
In case of damages, the supporting structures should be immediately repaired so as to avoid falling down of the unit, which might cause human injuries or



The falling down of the unit or the objects might cause human injuries and other accidents.

Instructions for Removal and Repair

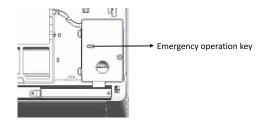
- When removal or repair is needed, please contact the dealer or authorized maintenance & installation people.
- In case of any abnormal occurrences (smell of burning), please stop the operation at once, cut off the power supply and contact the dealer or authorized maintenance people.
- Beware of Fire in case of refrigerant leakage. if the air conditioner is not operating correctly, i.e. not generating cool or warm air, refrigerant leakage could be the cause. The refrigerant within the air conditioner is safe & normally does not leak. However in the event of leakage, contact with naked burner, heater or cooker may result in generation of noxious gas. Do not use the air conditioner until a qualified service person confirms that the leakage has been repaired.



Emergency Operation Key

VOLTAS

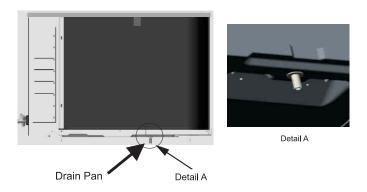
This button can be used as an emergency measure to turn on/off unit when remote controller is not available.



When the remote controller is lost or damaged, use the emergency operation key on the main unit. In such an event, the unit operates in the Cool Mode.

<u>Drain pan: (Applicable for Heat-Cool series models)</u>

The provision of drain pan given in outdoor unit is for draining the water when machine runs in heat mode.

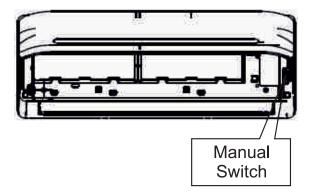


Refer the image for assembled drain pan in outdoor unit.

Emergency Operation Key

VOLTAS

Unit are equipped with a switch to run emergency operation mode. It can be accessed by opening the front panel. This switch is used for manual operation (Turn On / Off) in case the remote controller fails to work or maintenance necessary. In such event, the unit operates in the Cool mode.



INDOOR DISPLAY



Display will be blank when AC will be in off condition. Set temperature will always appear on the display. Room temperature will appear on the display when room temperature command will be received by the controller from the remote.

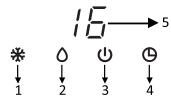
Indoor Display

VOLTAS









1. Cool Mode Indicator

Illuminates in white colour when the air conditioner runs in cool mode.

2. Dry Mode Indicator

Illuminates when the air conditioner is in the dry mode of operation.

3. Power Indicator

Illuminates when the air conditioner is in standby mode.

4. On/Off Timer Indicator

Illuminates when a timer has been set.

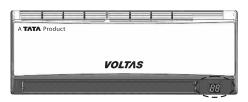
5. Digital Display Indicator

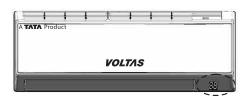
Display the current temperature setting when the air conditioner is in $\mbox{\sc Cool/Dry\,Mode}.$

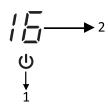
"Ht" display when the air conditioner is in heat mode. (Heat mode will be applicable for heat cool series models only.)

Indoor Display

VOLTAS







1. Power indicator

Illuminates when the Air conditioner is in standby mode.

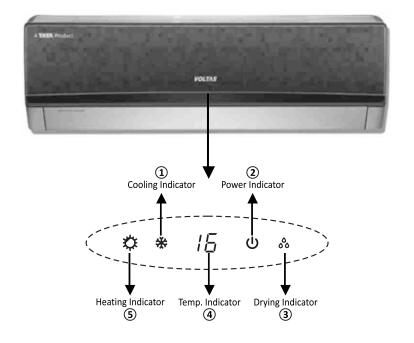
2. Digital Display indicator

Displays the current temperature setting when the air conditioner is in operation.

Note :- IDU Display/Size Depending upon Model to Model.

Indoor Display

VOLTAS



1. Cool Mode Indicator

Illuminates in white colour when the air conditioner runs in cool mode.

2. Power Indicator

 $Illuminates when the air conditioner is in standby \, mode. \\$

3. Dry Mode Indicator

Illuminates when the air conditioner is in the dry mode of operation.

4. Digital Display Indicator (Temp. Indicator)

Display the current temperature setting when the air conditioner is in operation.

5. Heating Indicator

Heat mode not available.

General Feature & Replacement of Batteries **VOLTAS**

GENERAL FEATURE:

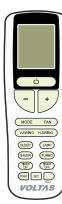
The Controller has following features--

- Display : Dual digit display with / Led Indicaters
- Preset temperature setting from 16°C to 30°C.
- Compressor delay protection.
- Different fan speed i.e. Low, Medium, High and Auto.
- Timer can be set in hour to turn ON/OFF the machine.
- Memory backup in case of power failure.
- Anti Fungi Function.

"Remote Key Features varies depending upon model to Model. Some Features might not work with the unit purchased"







TYPE-2

Anti Fungi Function:

While Compressor is ON and user turn OFF the Air Conditioner from the remote, then compressor will go OFF immediately but Blower remains ON and Louver open for some time, after that blower become off and Louver get closed.

REPLACEMENT OF BATTERIES



Remote Controller 1

- When the signal from the remote controller becomes weak and the indoor unit can not receive it properly; or the indications on the display screen becomes blurred, please slide the back cover and replace with two new batteries.
- The positive and negative poles must match the installation positions.
- New batteries of the same type have to be used for replacement.
- If the remote controller is not to be used for long time, take out the batteries so as to prevent the leakage of the electrolyte from damaging the controller.
- If when the remote controller is at abnormal state, you can take out the batteries on the back cover to clear off the display.

Transmitter Feature

VOLTAS

I/O ON/OFF

Press this key to turn the machine on/off. The AC always starts with the previous settings.

EAN

Pressing this key, Fan speed will change in Low - Medium -High -Auto speed sequence. Auto speed can be set only in cool mode. In Auto speed operation, Fan speed will be controlled automatically based on the difference between the set and room temperature. If user feel uncomfortable due to auto Fan operation, he can switch to manual selection of Fan speed.

MODE

Select Fan, Cool, Dry and Heat function by using mode key. (Heat mode will be applicable for heat cool series models Only.)

UP/DOWN

Set Temperature and timer value can be increased/decreased by using this key.

VERTICAL SWING

Vertical swing motor starts/stop by swing key. Fan motor starts running only after when the flap is opened.

HORIZONTAL SWING

Applicable for horizontal swing series models.

TIMER

ON/OFF timer can be set with the help of up & down Key. timer on, timer off and set key. to cancel the On timer press the respective key twice.

SLEEF

Sleep function can be set only in cool mode. in this function, Set temperature will increase by 1 degree C in first 1 hour. total 2 degree C will be increase in 2 hours.

TURBO

Turbo feature can be operated by pressing turbo key. Enabling turbo key will set the fan speed at high speed.

LAMP

This key is used to ON/OFF the display of indoor unit.

- I. Whenever Lamp function is enabled, display will go off except function indicator.
- ii. When Lamp is enabled, if user press the temperature up/down key, display will become on for 5 second only from last key pressed.

SAVER

This key is used to active/deactive saver feature. when saver is active, set temp will be 24 degree and fan speed will be set at medium.

TEMP/FEELING

If user presses the Temp/Feeling key. Room temperature will appear on the IDU display for 5 second.

WI-FI

This feature will be available only in Wi-Fi series models. For more information about Wi-Fi feature, please refer to other manual provided with the Machine or visit to www.myvoltas.com and download the Wi-Fi enabled Ac's reference manual.

ADJ

This key is used to Active/Deactive Flexi Cooling Feature.

(This Feature is applicable for selected models only.)

REMOTE KEY PAD LOCK

Press "+" & "-" Buttons simultaneously to lock remote keys & press both again to unlock.

Special Features/Operating Modes **VOLTAS**

SPECIAL FEATURES:

 SUPER DRY - Press Mode Key on remote to enter Dry Mode, Based on room temperature Dry Mode automatically starts with Super Dry function which removes humidity level quickly as compared to conventional Dry mode.

While Super Dry is working

- A. IDU Display continuously show "Sd"
- B. Fast Auto swing louver can not be changed.
- C. Set temp & fan speed can not be changed.

This Feature is applicable for selected models only.

2. FLEXI COOLING - During this function Optimum Cooling with Low Power Consumption is achieved based on customer requirement . In Cool Mode press ADJ key on remote to select this function & to deselect this function press ADJ key again . While Flexi Cooling is working , IDU display show "Ad".

In cool mode either Saver function or Flexi cooling function will work , Both function can not work together.

This Feature is applicable for selected models only.

OPERATING MODES:

1. FAN MODE

- Indoor fan will run at selected speed (except Fan auto).
- Compressor will be off in fan mode.

2. COOL:

- In Cool Mode set temperature is adjustable between 16 Degree to 30 Degree C.
- · Indoor fan will run at selected fan speed.
- Compressor will adjust speed accordingly in order to maintain the room temperature when room temperature > set +1°C.
- Compressor will adjust speed accordingly in order to maintain the room temperature when room temperature < set -1°C.
- 3. **HEAT** (Applicable for Heat-Cool series models)
- In Heat Mode, set temperature is adjustable between 16 Degree to 30 Degree C.
- · Indoor fan will run at selected fan speed.
- Compressor will adjust speed accordingly in order to maintain the room temperature when room temperature < set -1°C.
- Compressor will adjust speed accordingly in order to maintain the room temperature when room temperature > set +2°C.

4. DRY MODE:

In Dry Mode :-

- Fan Speed will be low & set Temp 24°C can't be changed.
- Compressor cycling will be same as it is in cool mode.

5. PROTECTION FEATURES:

- · Sensor Fail Protection.
- Defrost Protection in cool mode.
- Defrost Protection in heat mode.
- Fan Motor Protection.

Troubleshooting

VOLTAS



CAUTION

Don't attempt to repair the air conditioner by yourself, it can cause an electric shock or fire. Please check the following items before asking for repair, it can save your time and money.

Phenomenon	Troubleshooting
Does not operate immediately when the air conditioner is restarted.	Once the air conditioner is stopped, Compressor will take approx. 3 minutes to restart.
There's unusual smell blowing from the outlet after operation is started.	 The unit has no peculiar smell by itself. If has that is due to the smell accumulated in th ambient.
?	Solution method : Cleaning the filter. If the problem still persists, so need to clean air conditioner. (Please contact with the authorized maintenance center.)
Sound of water flow can be heard during the operation.	While air conditioner is running for while the compressor get started or stopped, Refrigerated sound can be heard.
	This is a normal function.
In COOL mode, sometimes the mist emitted from the air outlet vent.	When the indoor temperature and humidity are very high, this phenomenon would happen. This is caused by the room air is swiftly cooled down. After running for a while indoor temperature and humidity will fall down, the mist will go away.
Creaking noise can be heard when start or stop the unit.	This is caused by the deformation of plastic due to the changes in temperature.

Troubleshooting VOLTAS Phenomenon Troubleshooting • Has the power been shut down? The unit does not run. Is the power plug loose? • Is the circuit protection device tripped off or not? Is voltage higher or lower? (Tested by professionals) (Breaking off) • Is the TIMER correctly used? Cooling(Heating) efficiency is not good. Is Temp. setting suitable? • Were inlet and outlet vents obstructed? • Are the windows and doors closed? • Was Fan speed set at low speed? • Is there any heat sources in the room? Wireless remote control is not available. The unit is interfered by abnormal or frequent functions switchover occasionally the controller cannot operate. At this time, you need to pull out of the plug, and reinsert it. • Is it in its receiving range? Or obstructed? check the batteries is charged, otherwise to replace the batteries. Whether the wireless remote control is damaged. If water leakage in the room. • The air humidity is on the high side. Condensing water over flowed. The connection position of indoor unit drainage If water leakage in outdoor unit. When the unit is running in COOL mode, the pipe and connection of pipe would be condensed due to the water cooled down. When the unit is running in Auto Defrosting mode the ice thaws and flows out. When the unit is running in HEAT mode, the water adhered on heat exchanger drips off. Noise from indoor unit emitted. • The sound of fan or compressor relay is switching on or off. • When the defrosting is started or stop running, it. That is due to the refrigerant flowed to the reverse direction .Can be the sound of fan on the compressor, switching on and off while defrosting, as the refrigerant flows in the opposite direction. (14)

Troubleshooting VOLTAS Phenomenon Troubleshooting Indoor unit does not blow air. • In HEAT mode, when the temperature of indoor * heat evelonger is very low that will step deliver heat exchanger is very low, that will stop deliver air in order to prevent cool air. (Within 2min) In HEAT mode, when the outdoor temperature is low or high humidity, there are much frost is (* Applicable for Heat Cool models only.) formed on the outdoor heat exchanger, that the unit will automatically defrosting due to which, indoor unit stop blowing air for 3-12min. During the defrosting, there is water flowing out or vapor be produced. • In dehumidifying mode, sometimes indoor fan get stop, in order to avoid condensing water be vaporized again, to restrain temperature from rising. If unit is running under the high humidity for a long time, the moisture will be condensed on the air outlet grill and drip off. Moisture on air outlet vent.



Immediately stop all operations and plug out, contact the dealer in following situations.

There is harsh sound during operation.

The terrible odour emitted during operation.

Water is leaking in the room.

Air switch or protection switch often breaks.

 $Care lessly\,splash\,water\,or\,something\,into\,unit.$

There is an abnormal heat in power supply cord and power plug.

Stop running and pull out of the plug.

Clean/Care/Testing Procedure

VOLTAS



- Turn power off and pull out the power plug before cleaning air conditioner, or it may cause electric shock.
- Never sprinkle water on the indoor unit and the outdoor unit for cleaning because it can cause an electric shock
- Volatile liquid (e.g. thinner or gasoline) will damage the air conditioner. (So wipe the units with a
 dry soft cloth, or a cloth slightly moistened with water or cleanser.)

Clean the front panel

When cleaning the front panel, please dip the cloth into the water temperature of 45° C below, then dry the cloth and wipe the dirty part.

Note: Please do not to immerse the front panel in water, due to as microcomputer components and circuit diagrams on the front panel.

Clean the air filter (Recommended once every three months)

NOTE: If dust is much more around the air conditioner, the air filters should be cleaned many times. After taking off the filter, don't touch the fin of indoor unit, in order to avoid hurting your fingers.

1 Take down the air filter

At the slot of surface panel to open an angle, pull the air filter downward and take it out, please see the Fig. 4(a, b).

(Care should be taken while opening the Front Panel by lifting from both side properly.)

② Clean the air filter

To clean the dust adhering to the filters, you can either use a vacuum cleaner, or wash them with warm water the water with the neutral detergent should below 45 degree) and dry it in the shade.

NOTE: Never use water above 45°C to clean, or it can cause deformation or discoloration. Never parch it by fire, or can cause a fire or deformation.

③ Insert the air filter

Reinsert the filters along the direction of arrowhead, and then to cover and clasp it.

Check before use

- ① Be sure that nothing obstructs the air outlet and intake vents.
- 2 Check that whether ground wire is properly connected or not.
- ③ Check that whether the batteries of air conditioner are changed or not.
- Check that whether the installation stand of the outdoor unit is damaged or not. If damaged, please contact the dealer.













Clean/Care/Testing Procedure

VOLTAS

Maintain after use

- 1 Turn main power off.
- ② Clean the filter and indoor and outdoor units' bodies.
- ③ Clear dust and obstructions from the outdoor unit.
- ④ Repaint the rubiginous place on the outdoor unit to prevent it from spreading.
- ⑤ Adopt the special shield to cover the outdoor unit, to avoid the rain water and dust to enter the unit and get rust.

DC inverter testing procedure

Full Load Cooling testing procedure

- 1. To enable the test mode, switch on the Unit and set it to "Cooling" Mode.
- 2. Set temp. as "16°C" and fan speed to "High".
- 3. Press "Lamp" button key on the remote for 8 times continuously.
- 4. As the test mode gets enable, twice buzzer sound will come with whole LED light panel lights up and starts blinking on indoor display.

Details set temperature and operating conditions information as below

Cooling co	ndition	Setting temperature	Description
Indoor	Outdoor		<u>'</u>
27/19	35/24	16°C	Full Load Cooling

Half Load Cooling testing procedure

- 1. To enable the test mode, switch on the Unit and set it to "Cooling" Mode.
- 2. Set temp. as "17°C" and fan speed to "High".
- 3. Press "Lamp" button key on the remote for 8 times continuously.
- 4. As the test mode gets enable, twice buzzer sound will come with whole LED light panel lights up and starts blinking on indoor display.

Details set temperature and operating conditions information as below

Cooling co	ndition	Setting temperature	Description
Indoor	Outdoor		
27/19	35/24	17°C	Half Load Cooling

Note: On power reset, controller will come out from the test mode and will run in normal operation. To enter in test mode, user has to again follow the procedure from point 1 in both load condition.

VOLTAS



- Only authorised experienced & properly instructed person should handle gases under pressure.

 The air conditioner is not allowed to use in a room that has running fire (such as fire source, kitchen, working coal gasware, operating heater)
- operating neater) Appliance shall be installed, operated & stored with a floor area larger than 4 sq meter with well ventilation. Check power condition of the house , it should have proper earthling, no power fluctuation and use of proper rated circuit
- Freaker

 Extra precaution should be done during flaring of installation pipe, refrigerant may leak due to improper flaring.

 Make sure there is no loose wire connection or any loose fixing at terminals. If wire extension is required, use proper jointer to connect both wire.

 It is not allowed to drill hole or burn the connection pipe.

 Leak test is must after installation

 Do not install machine,

 At Potentially explosive atmosphere

 Places where there is risk of fire due to leakage of flammable gases (example- thinner or gasoline)

 Places where corrosive gas (example- Sulphurous acid gas) is produced which can cause refrigerant leakage due to corrosion of copper pipes/solder parts

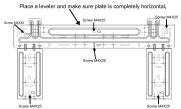
 Near heat source/steam source.

[Selection of installation positions for indoor unit]

- To be installed at the position where the air delivered from the unit can reach every corner of the room:
- To avoid being affected by the outdoor air:
- To avoid blockage to the air inlet or outlet of the unit;
- To avoid too much oil smoke or steam;
- To avoid possible generation, inflow, lingering or leakage of flammable gases;
- To avoid high-frequency facilities (such as high frequency arc welders, etc.);
- To avoid the places where acid solutions are frequently used:
- To avoid the places where some special sprayers (sulfides) are frequently used.
- Not to install on top of the musical instruments, TV, computer etc. valuable appliance.
- Not to install a fire alarming device near the air outlet of the unit (during operation, the fire alarm device might be erroneously triggered by the warm air from the unit);

Make sure of enough space for installation and maintenance for Indoor & Outdoor Unit.

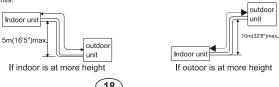
● To take into consideration the operational convenience and safety in installation, it is recommended to ensure enough space between the unit and the walls.



Attention: If there are some additional function devices to install on the air conditioner, Be sure add to the installation space for the function devices.

Height limits of indoor and outdoor units.

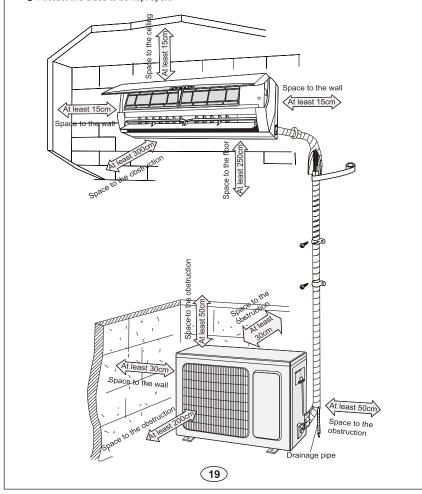
- Either the indoor unit or the outdoor unit can be higher, but the height difference must comply the stated
- Try to reduce the bending of the piping line as much as possible so as to avoid possible negative impacts upon the performances of the units



VOLTAS

[Selection of installation positions for outdoor unit]

- To install the outdoor unit at the places which can stand the load of the machine weight and will
 not cause big vibrations and noises;
- To install the unit at the places not to be exposed to rain or direct sunshine, and the places with good ventilation;
- The noises generated from the unit will not affect the neighboring places;
- Do not install the unit on non-metal frame;
- Not to install the unit at the places where there might occur the generation, inflow, stay or leakage of inflammable gases;
- Pay attention to the drainage of the condensed water from the base plate during operations;
- To avoid the air outlet being directly against the wind.
- At least two sides to be kept open.



VOLTAS

[Installation fixture of indoor unit]

Pipelines can be connected in the directions of 3, 2, 3 and 4 as indicated in Fig.1. When the pipelines are connected to the directions of 3 and 4, a groove for the pipes has to be opened at the proper place on the base stand.

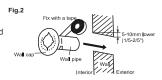


1.Installation of wall-mounting plate

Fix the wall-mounting plate firmly on the wall with screws. Make sure of the leveling of the plate. Slanted wall-mounting plate might jeopardize the smooth discharge of the condensed water.

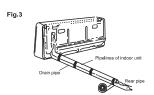
2.Drill holes on the wall

Drill holes at places slightly below the wall-mounting plate, with hole diameter of 65mm(2-3/5") and the outer edge of the hole 5-10mm(1/5-2/5") lower (Fig.2) so that the condensed water can smoothly flow out. Cut the wall penetrating pipe to proper length according to the thickness of the wall (3-5mm(1/10-1/5") longer than the wall thickness) and insert the pipe as indicated in Fig.2.



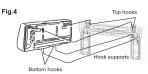
3.Installation of drain pipe

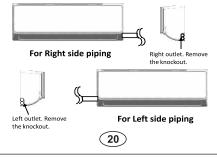
Install the pipelines of the indoor unit in accordance with the direction of the wall holes. Wrap tightly the drain pipe and the pipelines with tape. Make sure that the drain pipe is underneath the pipelines. (Fig. 3) (When the drain pipe passes the room interior, some condensed water might occur to its surfaces if the humidity is very high).



4.Installation of indoor unit

Pass the connection wires, connecting pipelines and drain pipe through the wall hole. Hang the indoor unit on the hooks at the top of the wall-mounting plate so that the hooks at the bottom of the indoor unit match the hooks of the wall-mounting plate. (Fig.4)

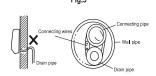




VOLTAS

Inspections:

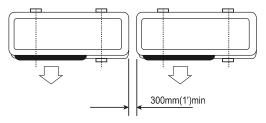
- a. Check if the hooks at the top and bottom are firmly fixed.
- b. Check if the position of the master unit is properly leveled.
- c. The drain pipe should not curve upward (Fig.5).
- d. The drain pipe should be at the lower part of the wall pipes (Fig. 5).



Installation fixture of outdoor unit

- $\ \, \bullet \,$ Try to ship the product to the installation location in its original package;
- As the gravity center of the unit is not at the installation center, special caution should be taken when using hoisting cables to lift it up;
- During shipping, the outdoor unit must not be slanted to over 45 degrees (Do not store the unit in a horizontal way).
- Use expansion bolts to fix the mounting supports on the wall;
- Use bolts and nuts to fix the outdoor unit firmly on the supports and keep on the same level;
- If the unit is installed on the wall or at the rooftop, the supports have to be firmly fixed so as to resist earthquake or strong wind.

Dimensions for parallel units installations



【Ordinary pipelines connection & Air purging 】

 The following ordinary pipelines connection and air purging procedures are just suitable for non-quick coupler model.

Ordinary pipelines connection

No dust ,foreign articles,air or moisture should be allowed to enter the air conditioning system. Careful attention should be paid when pipeline connection for outdoor unit is made. Try to avoid repeated curves as much as possible, otherwise hardening or cracks might be caused to the copper pipes. Suitable wrenches should be used when the pipeline connection is done so as to ensure appropriate torque (refer to following torque Table 1). Excessive torque might damage the joints while too little torque might lead to leakage.

VOLTAS

Table 1 Torque based upon the wrench to be used

Outer diameter of copper pipe	Tightening torque	Strengthened tightening torque
Ø 6.35(1/4")	160kgf.cm(63kgf.inch)	200kgf.cm(79kgf.inch)
Ø 9.52(3/8")	300kgf.cm(118kgf.inch)	350kgf.cm(138kgf.inch)
Ø 12.7(1/2")	500kgf.cm(197kgf.inch)	550kgf.cm(216kgf.inch)
Ø 15.88(5/8")	750kgf.cm(295kgf.inch)	800kgf.cm(315kgf.inch)
Ø 19.05(3/4")	1200kgf.cm(472kgf.inch)	1400kgf.cm(551kgf.inch)

■Air purging with vacuum pump

- 1. Check that pipelines connection have been properly connected, remove the charging port cap, and connect the manifold gauge and the vacuum pump to the charging valve by service hoses as shown Fig. 6.
- 2.Open the valve of the low pressure side of manifold gauge,then,run the vacuum pump.Vacuum the indoor unit and the connecting pipes until the pressure in them lowers to below 1.5mmHG(The operation time for vacuuming is about 10 minutes).When the desired vacuum is reached,close the valve of the low pressure of the manifold and stop the vacuum pump.
- 3.Disconnect the service hoses and fit the cap to the charging valve.
- 4.Remove the blank caps, and fully open the spindles of the 2-way and 3-ways valves with a service valve wrench
- 5.Tighten the blank caps of the 2-way and 3-ways valves,applying the above torque Table 1.

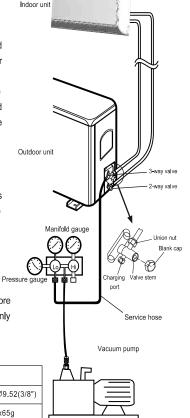
■ Adding refrigerant

Refrigerant must be added if the piping measures more than 5 metres(16'5") in length. This operation can only be performed by a professional technician, for the additional amount, see the table 2 below.

Table 2

Additional refrigerant amount	
Liquid pipe diameter Ø6.35(1/4")	Liquid pipe diameter:Ø9.52(3/8"
(piping length-5)mx30g or (piping length-16)ftx0.3oz	(piping length-5)mx65g or (piping length-16)ftx0.7oz

(22)



VOLTAS

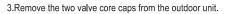
■Gas leakage inspection

After the pipieline connection is done, use a leakage inspection device or soap suds to carefully check if there is any leakage at the joints. This is an imporant step to ensure the quality of installation. Once a leakage is detected, proper treatment should be taken immediately.

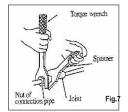
Applicable for coupler series model.

Pipelines connection for Split type quick coupler model

- If you purchase the machine for split type quick coupler model, please adopt the following pipeplines connection procedures:
- 1.Remove the dust caps from the indoor and outdoor units, and the connecting pipe.
- 2.Align the joint counter of connecting pipe with the proper indoor and outdoor joint conic surfaces,tighten the connecting nut manually.Then,make it secure with a wrench as shown Fig.7 ,applying to above torque Table 1.



- 4. Turn on the high and low pressure valve cores with an socket wrench, then tighten the two valve core caps of the outdoor unit (Fig. 8).
- 5. Finally ,wrap the hot insulating cotton around the joints of indoor and outdoor units.



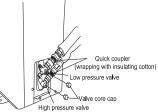


Fig.8

Notes on installation of quick coupler:

- $\begin{tabular}{ll} 1. Connecting pipe bending minimum radius parameters \\ (Table 3) \end{tabular}$
- 2.Quick coupler assembly and disassembly limit: the assembly and disassembly times are inadvisably more than 7.

Table 3 Minimum bending radius

Normial diameter(mm)	Minimum bending radius(mm)	cooling capacity
DN8(5/16")	80(3")	2100~2300W (7000~8000BTU)
DN10-12 (1/2")	100(4")	2500~5100W (9000~18000BTU)
DN14-16 (5/8")	150(6")	6100~7000W (22000~24000BTU)

VOLTAS

Is the unit installed correctly?

■ Suitable Installation Position

- Isn't there anything which prevents ventilation or obstructs operation in front of the indoor unit? Do not install the unit following place .
- Inflammable gases may leak .
- Oil splashes a lot .
- In case where the unit is used in such places as poisonous or sultry gases are generated or seaside district exposed to sea breezes corrosion may cause malfunction . Consult with your distributor .
- Air conditioner body and remote controller must be 1mtrs. (39-3/4") or more away from a TV or a radio. Drain the dehumidified water from the indoor unit to a place which drains well.

■ Pay attention to operation noise

- When installing the unit , choose a place which can stand the weight of the unit well and does not increase the operation noise or vibration . Especially where there is a possibility that vibration be transmitted to the house , fix the unit by inserting attached vibration -proof pads between the unit and fittings .
- Choose the place where hot air and operation noise from the outlet of the outdoor unit do not annoy the neighborhood .
- Things left near the outlet and inlet of the outdoor unit cause malfunction or increased operation noise . Do not leave obstacles near the outlet and inlet .
- If irregular sound is heard during operation , consult with your distributor .

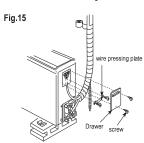
■Inspection and Maintenance

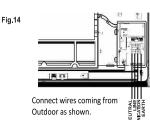
- According to the service conditions and operating environment , the inside of the air conditioner will become dirty after several seasons (3 to 5years) of service , resulting in decreased operating performance .Inspection and maintenance are recommended in addition to usual cleaning (The air conditioner can be used for a longer period and without anxiety .)
- ullet As to inspection and maintenance , consult your dealer or any one of business offices of dealing companies .(Service charge is required in this case .)
- We recommend to perform inspection and maintenance during an off seasons.

VOLTAS

[Connection of power cable]

- 1.Remove the drawer of the outdoor unit.
- 2.Non-quick coupler:connect the indoor power and control wires with the matched outdoor wires in accordance with the electric schematic diagram and make sure that the connection is firmly done(Fig.15.)
- 3.Optional steps:In some cooling and heating models,you should connect the indoor wire connector with outdoor probe wire connector for defrosting.







Connect wires coming from indoor as shown

Note:Do not connect the wires in a wrong way,otherwise electric malfunctions will be caused and even damages to the units will occur. The appliance shall be installed in accordance with national wiring regulation. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard. The plug shall be accessible after installing the appliance. If the model have not plug that a switch which have a contact separation of at least 3 mm in all poles shalled be added in fixed wiring.

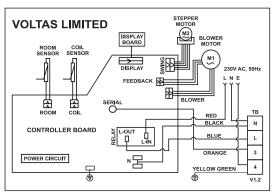
[Finishing touches]

- wrap the piplines tightly with ethylene tapes.
- Fix the wrapped pipelines on the exterior wall with clamps.
- Fill in the gaps left over by the pipeline hole and wall hole to prevent rain-water from entering.

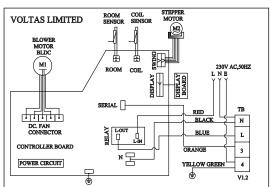
Test running

- Connect to the power source, check if the function selection keys on the remote controller are working properly.
- Check if the room temperature adjustments and timer settings are working properly.
- Check if the drain is smooth.
- Check if there is any abnormal noise or vibration during operation.
- Check if there is leakage of refrigerant.

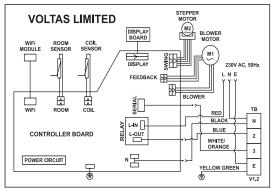
VOLTAS



IDU TYPE-1 :- AC FAN MOTOR



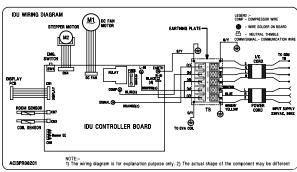
IDU TYPE-2 :- DC FAN MOTOR



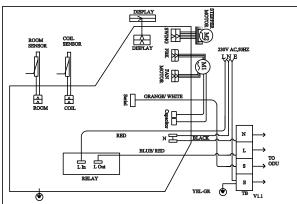
IDU TYPE-3 :- Wi-Fi IDU

NOTE- 1. THE WIRING DIAGRAM IS ONLY FOR EXPLANATION PURPOSE. 2. THE ACTUAL SHAPE OF COMPONENT AND PCB MAY BE DIFFERENT.

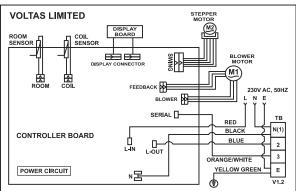
VOLTAS



IDU TYPE-2A :- DC FAN MOTOR



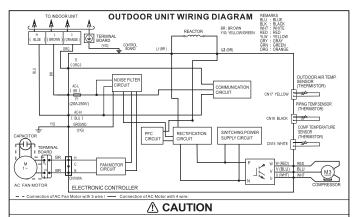
IDU TYPE-1A :- AC FAN MOTOR



IDU TYPE-1B :- AC FAN MOTOR

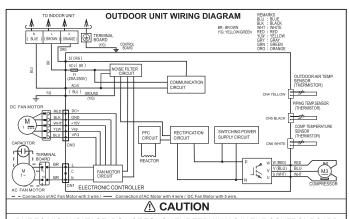
NOTE- 1. THE WIRING DIAGRAM IS ONLY FOR EXPLANATION PURPOSE.
2. THE ACTUAL SHAPE OF COMPONENT AND PCB MAY BE DIFFERENT.

VOLTAS



DUE TO HIGH VOLTAGE, DO NOT TOUCH THE TERMINALS IN THE CONTROL BOARD DURING OPERATION AND 5 MINUTES AFTER SWITCHING OFF. NEXT, CONFIRM THE VOLTAGE RECTIFICATION CIRCUIT BETWEEN DIODE BRIDGE (+) AND (-) HAS DROPPED TO BELOW 42V, BEFORE ACCESSING TO THE TERMINALS IN THE CONTROL BOARD.

ODU TYPE-1A: AC FAN (OUTSIDE REACTOR)

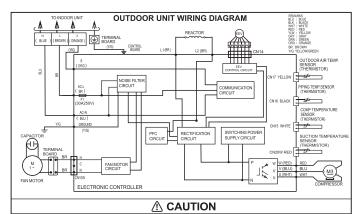


DUE TO HIGH VOLTAGE, DO NOT TOUCH THE TERMINALS IN THE CONTROL BOARD DURING OPERATION AND 5 MINUTES AFTER SWITCHING OFF. NEXT, CONFIRM THE VOLTAGE RECTIFICATION CIRCUIT BETWEEN DIODE BRIDGE (+) AND (·) HAS DROPPED TO BELOW 42V, BEFORE ACCESSING TO THE TERMINALS IN THE CONTROL BOARD.

ODU TYPE-1B: AC FAN / DC FAN (REACTOR ON PCB)

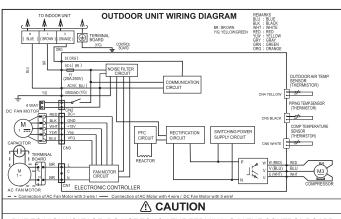
NOTE- 1. THE WIRING DIAGRAM IS ONLY FOR EXPLANATION PURPOSE.
2. THE ACTUAL SHAPE OF COMPONENT AND PCB MAY BE DIFFERENT.

VOLTAS



DUE TO HIGH VOLTAGE, DO NOT TOUCH THE TERMINALS IN THE CONTROL BOARD DURING OPERATION AND 5 MINUTES AFTER SWITCHING OFF. NEXT, CONFIRM THE VOLTAGE RECTIFICATION CIRCUIT BETWEEN DIODE BRIDGE (+) AND (-) HAS DROPPED TO BELOW 42V, BEFORE ACCESSING TO THE TERMINALS IN THE CONTROL BOARD.

ODU TYPE-1C: AC FAN (REACTOR OUTSIDE) WITH EEV

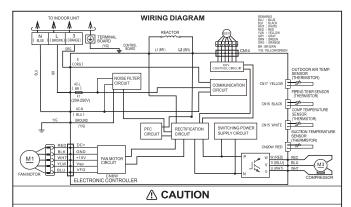


DUE TO HIGH VOLTAGE, DO NOT TOUCH THE TERMINALS IN THE CONTROL BOARD DURING OPERATION AND 5 MINUTES AFTER SWITCHING OFF. NEXT, CONFIRM THE VOLTAGE RECTIFICATION CIRCUIT BETWEEN DIODE BRIDGE (+) AND (·) HAS DROPPED TO BELOW 42V, BEFORE ACCESSING TO THE TERMINALS IN THE CONTROL BOARD.

ODU TYPE-3 :- HEAT & COOL AC FAN / DC FAN (REACTOR ON PCB)

NOTE- 1. THE WIRING DIAGRAM IS ONLY FOR EXPLANATION PURPOSE.
2. THE ACTUAL SHAPE OF COMPONENT AND PCB MAY BE DIFFERENT.

VOLTAS



DUE TO HIGH VOLTAGE, DO NOT TOUCH THE TERMINALS IN THE CONTROL BOARD DURING OPERATION AND 5 MINUTES AFTER SWITCHING OFF. NEXT, CONFIRM THE VOLTAGE RECTIFICATION CIRCUIT BETWEEN DIODE BRIDGE (+) AND (-) HAS DROPPED TO BELOW 42V, BEFORE ACCESSING TO THE TERMINALS IN THE CONTROL BOARD.

ODU TYPE-2 :- DC FAN MOTOR WITH EEV

ODU LIGHT FLASH	IDU DISPLAY	FAULT DETAILS	ODU LIGHT FLASH	IDU DISPLAY	FAULT DETAILS
25	EE	Indoor machine EE fault	16	P4	DC voltage over-high or over-low voltage protection
26	E1	Indoor fan fault	17	P5	IPM over-high temperature protection
27	E2	Indoor fan zero-crossing detection abnormal	18	P6	Discharge temperature overheat protection
28	E3	Indoor coil fault and sensor fault	19	P7	Cooling indoor coil anti-freezing protection
29	E4	Indoor ambient temperature sensor fault	20	P8	Cooling outdoor coil overheat protection
			21	P9	Heating indoor coil overheat protection
			22	PC	Cooling outdoor ambient temperature over-low protection
1	E0	Outdoor EE fault	23	PH	Heating outdoor ambient temperature over-high protection
2	E6	Indoor and outdoor machine communication fault			
4	F1	Compressor starting abnormal (phase failure, reverse)			
5	F2	Compressor out-of-step fault			
6	F3	IPM module fault			
7	F4	Compressor shell roof fault/protection	1		
8	F5	Discharge temperature sensor fault	31	L1	Drive bus voltage over-high protection
9	F6	Suction temperature sensor fault	32	L2	Drive bus voltage over-low protection
10	F7	Outdoor coil temperature sensor fault	33	L3	Drive phase current overload fault
11	F8	Outdoor ambient temperature sensor fault	34	L4	Phase current sampling abnormal
12	F9	Outdoor DC fan fault			
7	E8	Outdoor communication fault	Fault	codes will	show on display board once occur.
					es will not show on the display board stomer can check these protection
13	P1	Outdoor machine AC current protection			ing the "WIFI" / "ADJ" button 8 times in estantly. If there no protection is
14	P2	Compressor phase current protection			exhibits on the display board.
15	P3	Outdoor unit over-high/over-low AC voltage protection			

Note:- For Wi-Fi Model E9 Error (Wi-Fi Module Fault) can be seen while pressing the Emergency switch & power ON the IDU (Test Mode)

ERROR CODE

NOTE- 1. THE WIRING DIAGRAM IS ONLY FOR EXPLANATION PURPOSE. 2. THE ACTUAL SHAPE OF COMPONENT AND PCB MAY BE DIFFERENT.

VOLTAS

Installation Guide

To keep the allowed bending radius,please make the packed soft pipes vertical for expanding.





Please do not expand only one side of the packed soft pipes.

Please make use of semicircle pulley to keep the allowed bending radius.





Extremely bending could damage the pipes.

Please use twisting wheel to avoid improper bending.





Over length soft pipes will lead to irregular bending.

Please use rigid elbow to keep the bending radius while soft pipes operating.





Undersize bending will damage the soft pipe.

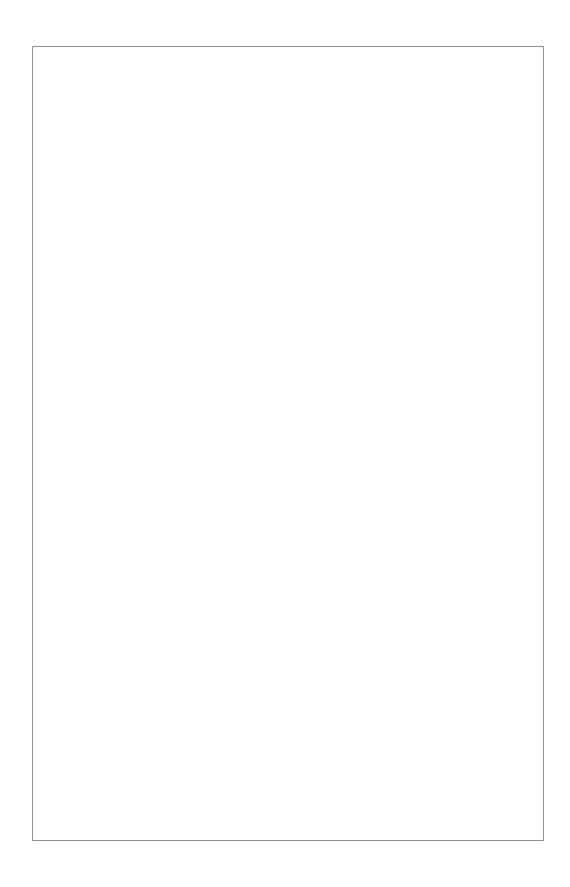
Please Keep the minimum bending radius while installing.



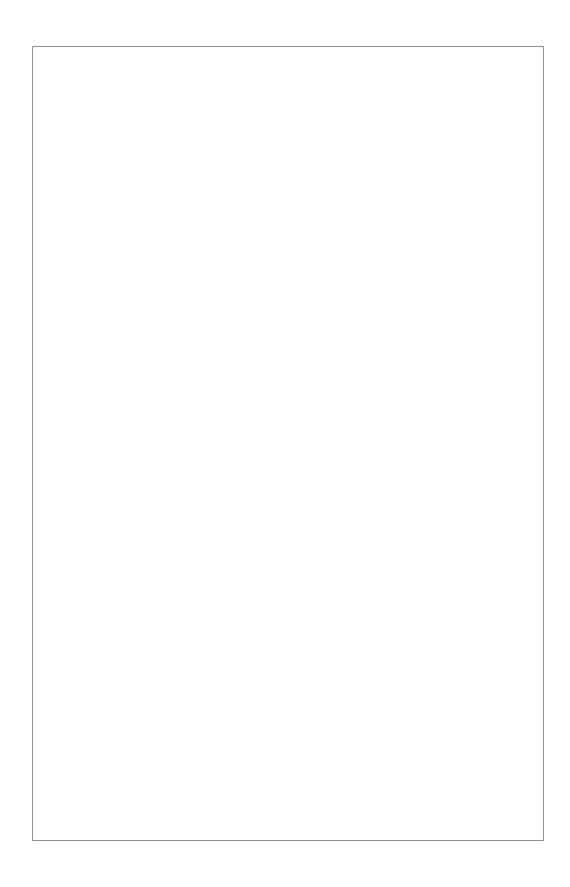


Short soft pipes will have them bending undersize, it's not allowed.

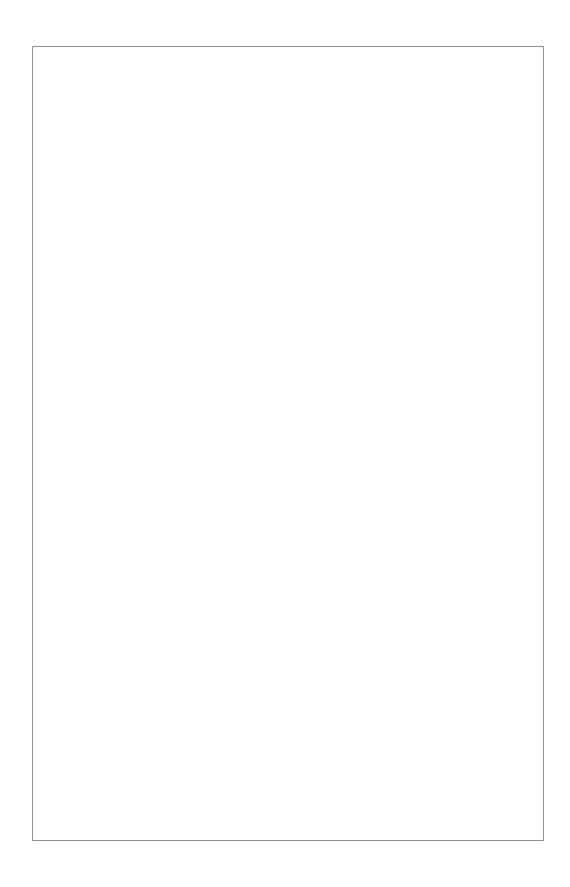
	VOLTAS
1st Free	e Service Coupon*
Name :	
Address :	
Tel. No.:	
AC Model :	Machine Serial No.:
Date of Purchase :	Date of Installation :
Dealers Name & Stamp :	Bill No.:
Date of 1st Free Service :	
	uthorised - Service Personnel to avail your 1st Free Machine Service.
heck List	
ick 'Yes' for operation performed)	
	(Yes)
Filter Cleaned	(Tes)
Condenser Coil Cleaned	
Cooling Coil Cleaned	
General Cleaning and Brushing up	
Motor Checked	
Electricals Checked	
•	
Stabilizer Checked	
Stabilizer Checked Insulation of AC Checked	
Stabilizer Checked Insulation of AC Checked Grill Temperature	
Stabilizer Checked Insulation of AC Checked Grill Temperature	
Stabilizer Checked Insulation of AC Checked Grill Temperature Room Temperature ustomer's Remarks & Signature	
Drain System Checked Stabilizer Checked Insulation of AC Checked Grill Temperature Room Temperature ustomer's Remarks & Signature echnician's Name & Signature	ice contact, Customer Care 9650694555/1860 599 4555



2nd Free Service Coupon	VOLTAS
2nd Free Serv	vice Coupon*
Name :	
Address:	
Tel. No.:	
AC Model :	Machine Serial No.:
Date of Purchase :	Date of Installation :
Dealers Name & Stamp :	Bill No.:
Date of 2nd Free Service :	
Kindly fill and handover the service coupon to Voltas Authorised -	Consider Demonstrate available of Ord Free Machine Consider
(Tick 'Yes' for operation performed)	(Yes)
Filter Cleaned	(Tes)
Condenser Coil Cleaned	
Cooling Coil Cleaned	
General Cleaning and Brushing up	
Motor Checked	
Electricals Checked	
Drain System Checked	
Stabilizer Checked	
Insulation of AC Checked	+
Grill Temperature Room Temperature	
Customer's Remarks & Signature Technician's Name & Signature *valid within 12 months of purchase. To avail this free service contact	t, Customer Care 9650694555/1860 599 4555
34)



Machine Installation Coupon VOLTAS Machine Installation Coupon 1 Customer Name : _____ 1 AC Model : 1 Serial No. : Date of Purchase : ī Date of Installation : 1 Voltas Dealer's Name : (Purchase point Identify) 1 Voltas Service provider : ______(To be filled by Voltas Dealer) 1 Customer's Remarks & Signature : _____ 1 1 Technician's Name & Signature : _____ 1 36



Warranty Certificate

VOLTAS

Dear Customer.

Т

-1

Т

1 1 1

Т

Т 1 1 1 Т

1 1

Т -1 Т Т

Т

п

Т Т

-1

Т Т

1

We wish you a long and happy association with your Voltas Air Conditioner. However, we would like you to know your rights in respect of your Voltas Air Conditioner bearing serial number.

- 1. Repairs or replacement of any part or parts except plastic parts like Grill, louvers. etc. of the air conditioner for a period of 12 months from the date of purchase, when we identify the defects as due to faulty material or workmanship and not due to
- improper usage, or faulty electric supply/connection.

 2. The defective part/material shall be replaced with a functionally working equivalent part material.

 3. Free after-sales service during the above mentioned period is available within the municipal limits of the city or town where the company's office or your dealer is located.

Voltas Guarantees to honour your above mentioned rights.

You may please note

- Repair or replacement of parts under your entitlement would be carried out by the nearest Voltas Service Station/Authorised Dealer. In case your air conditioner requires repairs at the workshop, our representative will advise you Station/Authorised Dealer. In case your air conditioner requires repairs at the workshop, our representative will advise you accordingly.

 2. Your entitlement mentioned above, is confined to repair and replacement of the defective parts only and does not cover any consequential or resulting liability, damage or loss or replacement of the air conditioner itself or refund of the price.

 3. We shall not be able to honour your entitlement if

 A) your air conditioner is modified or improperly installed or repaired; or

 B) damage is caused by accident, fire or misuse; or

 C) the original serial numbers are removed, obliterated or altered from the air conditioner.

 4. We request you to inform our nearest Voltas Service Station/Authorised dealer in advance, of any change in location of the unit or ownership to enable us to transfer your guarantee, after inspection to the new location/owner.

Voltas Limited

Voltas House, 'A', Dr. Babasaheb Ambedkar Road, Chinchpokli, Mumbai - 400 033

Repair and replacement of the compressor will be done under the following terms and conditions:

- Replacement and repair will not be carried out in case of accident, misuse, corrosion and other environmental reasons.
 It is a must for you to use a Voltage Stabiliser along with the air conditioner, which should meet the specifications laid down by Voltas personnel. We will not be responsible for any damages due to the defects in the electric installation or voltage fluctuations.

- fluctuations.

 3. The owner must clean the air filter of the air conditioner at regular intervals.

 4. We will not be responsible for any damage due to change of location of the unit. Any change in the location must be notified to us at least 15 days in advance.

 5. If the compressor falls, Voltas has the right to have the machine inspected, to determine if the usage has been as per their advice, failing which Voltas will not replace the compressor.

 6. All parts replaced other than the compressor will be charged extra. Transportation to and from the service station and gas charging will be charged extra.

 7. The compressor will not be replaced or repaired under the 5 years warranty period if the air conditioner has been serviced or repaired by any non-Voltas service personnel.

 8. Consequential damages and losses of any nature whatsoever are not covered under 5 years warranty.

 9. To avail compressor replacement after 5 years warranty, Voltas advices that the AC is covered under Voltas AMC.

▶ 5 Year Compressor Warranty Certificate

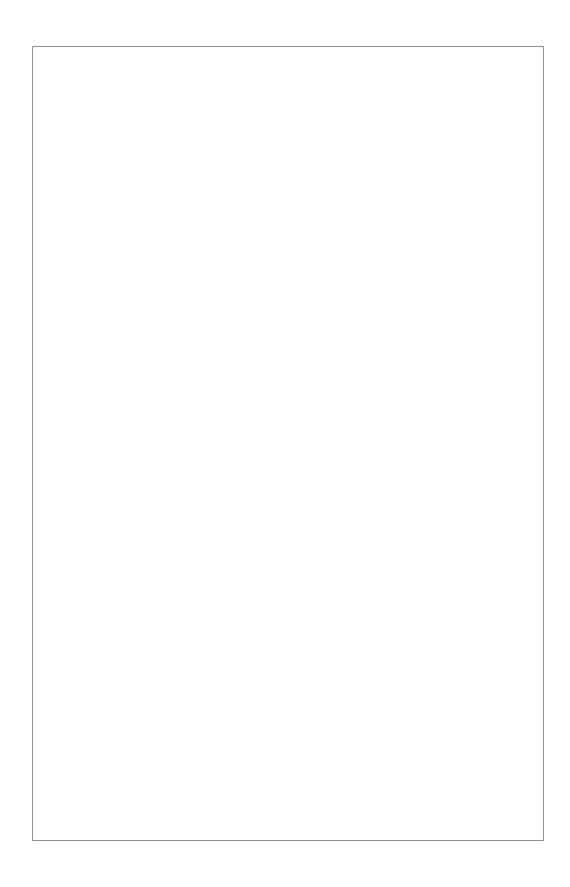
Dear Customer,
Now your Voltas Air Conditioner comes along with complete 5 years Compressor Warranty. Voltas undertakes to repair or
replace the compressor of your air conditioner, due to any malfunction during normal usage in the first five years. We wish
you a long and happy association with your Voltas Air Conditioner. Please make sure to fill up the following details completely without which this certificate will not be legitimate.

Customer name																																									
Name of model Model No	•	 ٠	 •	•	•		•		•	•	 •	٠	٠	 	•	•	٠		•	•	 •	٠		•	•	 •	•	 •	•	 •	 	•	•	 •	•	 •	•	•	 •	•	 •
Model No Air Conditioner Sr.No.	:			٠									٠	 																	 								 ٠		 ٠
Compressor Sr No.	:					 		 						 																	 					 					
Date of Purchase	:													 									 								 					 					
Name of the dealer																																									

Voltas advises our customers to enter into an Annual Maintenance Contract with us, to increase the life of the compressor far beyond five years and also to ensure optimum electricity consumption during its entire life time.

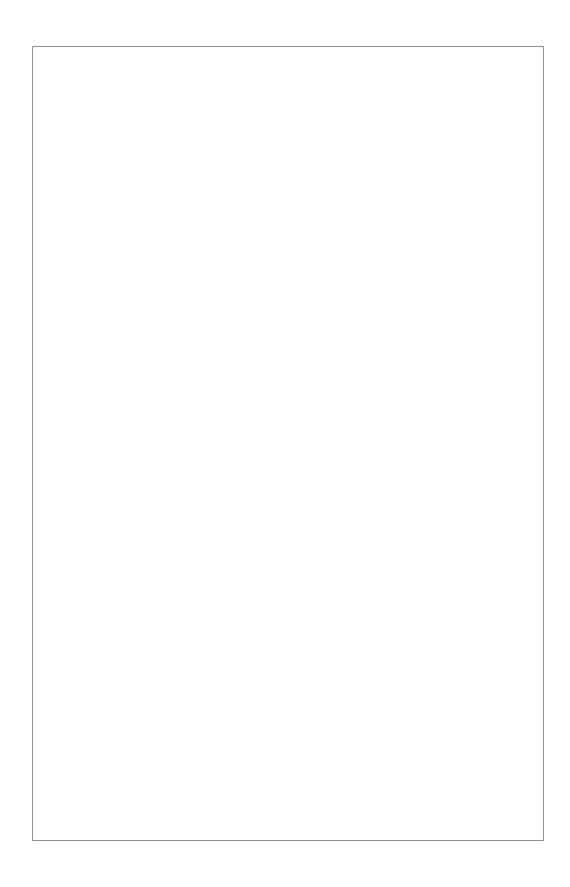
Please check the terms and conditions of the warranty on the reverse.

Customer Care No. 9650694555/1860 599 4555, 24 Hrs & 7 Days A Week.



Guarantee Registration Card **VOLTAS VOLTAS** GUARANTEE REGISTRATION CARD (Customer's Copy) Т Name of Purchaser Invoice No and Date :_ AC Model :_ Sr. No. Unit:_ Sr. No. of the Compressor :____ Name & Address of the Seller (Voltas/Authorised Dealer) Seller's Signature & Stamp ______ **VOLTAS GUARANTEE REGISTRATION CARD** Name of Purchaser Invoice No and Date :_ AC Model :_ Sr. No. Unit: Sr. No. of the Compressor :_ Name & Address of the Seller (Voltas/Authorised Dealer) Seller's Signature & Stamp **VOLTAS** GUARANTEE REGISTRATION CARD (Office Copy) Name of Purchaser Invoice No and Date : Sr. No. of the Compressor :_ Name & Address of the Seller (Voltas/Authorised Dealer)

Seller's Signature & Stamp



Voltas Recycling Program for E-Waste

VOLTAS

Voltas recycling program for E-Waste

What is E-Waste:

Waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded.

E-waste can be considered as a resource that contains useful material of economic benefit for recovery of plastics, iron, glass, aluminum, copper and precious metals such as silver, gold, platinum, and palladium and lead, cadmium, mercury etc.

The e-waste Rules apply to all electrical and electronic equipment (EEE) listed in Schedule 1 (this includes Air Conditioners) and put on market in India, including their components and consumables which are part of the product at the time of discarding.

SCHEDULE I consists of the following

Categories of Electrical and Electronic Equipments Covered under the Rules Sr. No. Categories of Electrical and Electronic Equipments

- (i) Information Technology and Telecommunication Equipment
- (ii) Consumer electrical and electronics Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology), Refrigerator, Washing Machine, Air-Conditioners excluding centralized air conditioning plants.

E-waste (Management & Handling) Rules, 2011:

The rules have been notified with primary objective to channelize the E-waste generated in the country for environmentally sound recycling which is largely controlled by the un-organized sector who are adopting crude practices that results into higher pollution and less recovery, thereby causing wastages of precious resources and damage to environment.

The E-waste Rules place main responsibility of e-waste management on the producers of the electrical and electronic equipment by introducing the concept of "Extended Producer Responsibility" (EPR). The E-waste (Management & Handling) Rules, 2011 have been notified in May 2011 and are effective from 01-05-2012.

Recycling of old electronic product is beneficial in following ways:

- There is need to encourage recycling of all useful and valuable material from e-waste so as to conserve the ever depleting natural resources. Recycling end-of-life products is vital if we are to save resources and minimize waste.
- Also scientific disposal of e-waste reduces the environment pollution. The correct disposal of old product will help prevent potential negative consequences for the environment and human health.

Voltas Recycling Program for E-Waste VOLTAS

Followings are negative consequences of disposal of product if not done in scientific way:

- Toxic material present in e-waste get mixed with earth, air, water etc and causes health issues.
- 2. Oil & Gases which is present is some of e-waste like compressor and refrigeration systems causes environment pollution.
- 3. Batteries contains highly hazardous element.
- 4. Burning of rubber & Plastic in open area causes air pollution.

Channel partners/Customers are urged to strictly follow the guidelines as per e-Waste rules as any failure on their part would invite penal action, which may attract imprisonment upto 5 years or with fine upto Rs. 1 Lac or both

Guidance on disposal:

In India, E-Waste (Management and Handling) Rules 2011 have been notified by the Central Government. Voltas stands committed to implement E-Waste Rules. Voltas has done tie-up with the government authorized e-waste recycler for facilitating our Channel partners/customers to enable them to dispose of e-waste products after its end-of-life products (when a product is non-operational or non-repairable) and also defective spare parts.

In this process, the channel partners/customers need to get in touch with our Customer Care 9650694555/1860 599 4555. Voltas works closely with all consumer durable supply chains including authorized service providers, distributors, merchandiser's customers, and the recycling industry.

Channel partners/Consumers should contribute to resource conservation and prevent potential environmental problems by a simple action — the proper depositing of their old consumer durable products, its accessories or defective spares.

E-waste is will be disposed off separately from the general waste stream via designated collection facilities identified by Voltas.

Recycling of Products:

Many customers might think that end-of-life products are worthless, but they still contain many reusable or recyclable materials. Let's see how all parts of old products could be recycled*.

- Metal components made of MS, copper, aluminium etc used in our products can be recycled and re used helping us save the environment.
- Valuable metals are used as component materials for the circuit board and remotes. During the smelting process, valuable metals such as gold, silver, and copper can be retrieved from these electronic parts. The metals that are retrieved can be used for new electronic parts or can be sold separately on their own.
- Plastic materials are used for structural components such as the case and cover. The plastic materials that have been collected are recycled as energy resources after going through a heat recovery process. Alternatively, they can be used as a form of recycled plastic once they have been broken down and processed.

Voltas Recycling Program for E-Waste VOLTAS

Recycled plastic can be used to produce products such as traffic cones, plastic fencing, and car bumpers.

Paper is the main component used in packaging. Paper can be recycled. It is then used as recycled paper or in products made of paper.

*The above usages are only suggestive and may not necessarily mean about the current usage

This initiative is the step towards a cleaner and greener earth. This move is one of the ways to show that we are concerned and thus we request all our customers to join this movement to make it successful by way of contributing their end-of-life products and defective spare parts.

Do's & Don't:

Do's:

- 1. All electrical and electronic products are required to be handed over only to the Authorised recycler.
- The product should be handed over only to authorized recycler for disposal.
- 3. Keep the product in isolated area, after it becomes non-functional/ un-repairable so as to prevent its accidental breakage.

Don'ts:

- 1. The product should not be opened by the User himself/herself, but only by authorised service personnel.
- 2. The product is not meant for re-sale any unauthorised agencies/scrap dealer/kabariwalahs.
- 3. The product is not meant for mixing into household waste stream.
- 4. Do not keep any replaced spare part(s) from the product in exposed area.

FAO

■ How to identify that this is an e-waste product

Any electrical or electronic part/product/accessories having wires / PCB and, it is not usable and cannot be repaired

■ Why re-cycling should be done? Benefits.

Recycling of old electronic product is beneficial in following ways:

- There is need to encourage recycling of all useful and valuable material from e-waste so as to conserve the ever depleting natural resources.
 Recycling end-of-life products is vital if we are to save resources and minimize waste.
- Also scientific disposal of e-waste reduces the environment pollution. The correct disposal of old product will help prevent potential negative consequences for the environment and human health.

Voltas Recycling Program for E-Waste VOLTAS

■ What are the negative consequences if proper recycling is not done.

- Any disposal through unauthorised agencies/person will attract action under Environment (Protection) Act 1986, which provides for imprisonment upto 5 years or with fine upto Rs. 1 Lac or both.
- Followings are negative consequences of disposal of product if not done in scientific way:
- Toxic material present in e-waste get mixed with earth, air, water etc and causes health issues.
- Oil & Gases which is present is some of e-waste like compressor and CRT causes environment pollution.
 - Batteries contains highly hazardous element.
 - Burning of rubber & Plastic in open area causes air pollution.

■ How the product is to be properly handled while disposing it off.

 Product should not be damage, dismantle or thrown in municipal waste. It should be packed and handed over to authorized re-cycler.

■ What are the effects if the product is dismantled by the user.

● All the products are safe for human being to use. However in case of breakage/dismantling in unscientific way could cause damage to environment or human being (directly or indirectly). Chances are there that user might come in contact with chemicals which could cause irritation in skin & eyes, might cause dizziness etc. Also sharp edges of electronic items could cause damage to body.

■ What precautions to be taken in case of any accidental breakage and the person is exposed to such hazardous substances

In case of accidental breakage of consumer durable products like:

• AC / Refrigerator :

Gas Leakage from compressor – open the window & doors to allow proper ventilation.

Oil Leakage from compressor – properly lock the oil-spillage point and clean your hand.

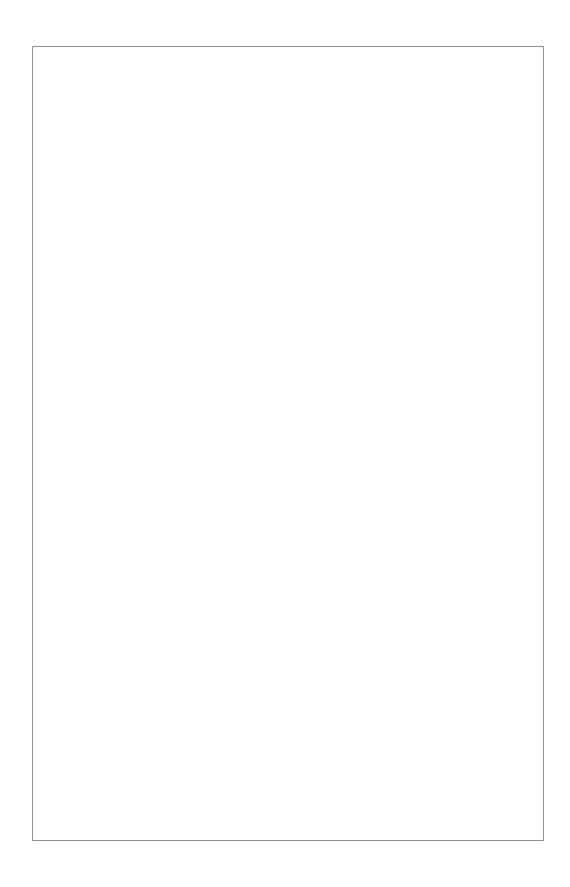
Battery of Any Product:

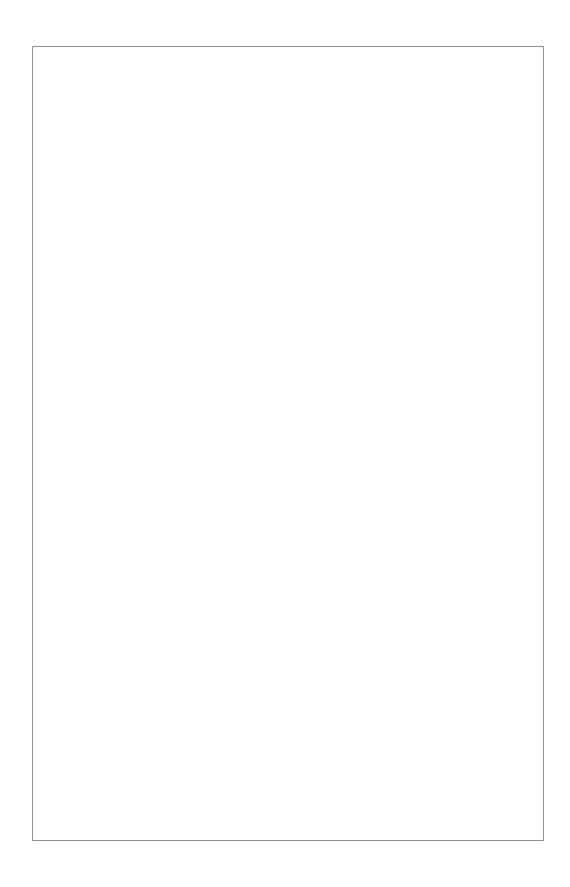
Don't touch the broken battery with bare-hand. Put it in bag/carton box. Clean your eyes & hand properly.

■ What will happen if the product is not properly handled and is given/sold to scrap dealer like any other ordinary scrap.

In case e-waste is sold to unauthorized dealers (Kabbadi), they don't have scientific tools to recycle the products and therefore they are not authorized by the Pollution Control Board. In open area they burn the plastic parts, break the seal of parts which carries gases and try to extract metals. Such smoke and gases pollute the

environment. Also hazardous residual are thrown in landfills which is dangerous for land, water, air and living beings.





Service Stations/Offices

VOLTAS

Corporate Head Office
 Voltas Limited: Voltas House B'2nd Floor,T.B kadam Marg Chinchpokli, Mumbai-400033
 Phone: 022-66656333

Voltas Limited :1st Floor .A-43. M.C.I.E. Mathura Road, New Delhi-110 044, Phone-011-66505550

3. Lucknow Office
Voltas Limited : Shalimar Titanium,
Block-C, 4th Floor, Office No. 410-412,
Plot No. TCG-1/1, Opp. Indira Gandhi Prathisthan,
Vibhuti Khand, Gomti Nagar, Lucknow - 226010
Phone : 0522-6566961

Ghaziabad Office Voltas Limited : D-15, R S Plaza, 3rd Floor, R.D.C. Raj Nagar Ghaziabad-201001

5. Chandigarh Office

Voltas Limited : Plot No. 194 - 195, 1st Floor, Industrial Area, Phase-2, Chandigarh-160002 Phone : 0172-4111800

6. Jaipur Office Voltas Limited : Diamond Tower, 201-203, Purani Chungi, Ajmer Road, Jaipur-302017 Phone: 0141-6451747/48

7. Haryana Office Voltas Limited : 1st Floor, A-43, M.C.I.E. Mathura Road, New Delhi-110 044, Phone : 011-66505582

8. Mumbai Office
Voltas Limited: Voltas House 'B' Block
2nd Floor, T. B. Kadam Marg,
Chinchpokli, Mumbai-400033, Phone: 022-66656333

9. Ahmedabad Office Voltas Limited : A-301, Shivalik Corporate Park, Behind IOCL Petrol Pump, Shivranjini Crossroad Satellite, Ahmedabad- 380015 Phone: 0790-66301190/91

10. Pune Office

Voltas Limited : 14, Equitorial Forum, 2nd & 3rd Floor, Mumbai-Pune Road, Wakadewadi, Pune-411003 Phone : 020–66011776

11. Nagpur OfficeVoltas Limited : UPBG, 280, Nirmiti House, WHC Road, Bajaj Nagar, Nagpur-440010 Phone: 0712-6464692

12. Goa Office Voltas Limited : UPBG, B-18, Akshay Apts., Lacampala Colony, Miramar, Panjim, Goa-403001

13. Raipur Office

Kalpur Office Voltas Limited : UPBG, 2nd Floor, C-7, Sector 2, Near ICICI Atm, Main Road, Devendra Nagar, Raipur (C.G.)-492001 Phone : 0771-4033886

14. Kolkata Office
Voltas Limited: Unit No. 805, 8th Floor,
Godrej Waterside Tower-2, Plot No. 5, Block DP,
Sector-V, Salt Lake, Kolkata-700 091 Phone: 033-66266207

15. Jamshedpur Office

Voltas Limited: Voltas House, 3rd Floor, Main Road Bistupur, Jamshedpur-831001 Phone: 0657-6455921

Voltas Limited : Maharaja Complex, 306-A, 3rd Floor, Frazer Road, Patna- 800001 Phone : 0612-3222555/6455192

17, Guwahati Office

Voltas Limited : Upasana Palace Complex, 6th Floor, Dr. Rajendra Prasad Road, Near Ganesh Mandir, Ganesh Guri, Guwahati-781006 Phone: 8811036281

18. Bhubaneswar Office Voltas Limited : B-15, Second Floor, Arihant Plaza, Shaheed Nagar, Bhubaneswar-751007 Phone : 0674-2544919/18

19. Hyderabad Office Voltas Limited : 7-2-1735, Saathinagar, Hyderabad-500018 Phone : 040-66743001

20. Chennai Office Voltas Limited : No. 624, Anna Salai, Chennai-600018 Phone : 66760333/11

21. Bangalore Office Voltas Limited: 7th Floor 701, Pride Hulkul, 116 Lalbagh, Bangalore-560027 Phone: 080-22535600

22. Kochi Office

Voltas Limited : Ambanat Building, 39/3522, M.G. Road, Ravipuram, Kochi-682016 Phone : 0484-6605555

23. Coimbatore Office Voltas Limited : 24-2, Pykara Office Road, Tatabad, Coimbatore-6410102 Phone: 0422-6502419/6530080

24. Indore Office

Indore Office Voltas Limited : UPBG, The View, 305 Y.N. Road, 3rd Floor, Opp. South Tukoganj Thana, Above D.P. Jewellers, Indore-452001 Phone : 0731-4046393/4043512

25. Thane Office Voltas Limited : UPBG, Unit II, 1st Floor, 2nd Pokhran Road, Thane-400601 Phone: 022-67920106/07



Voltas - V Service Stabiliser

Choosing the right stabiliser for your air conditioner goes a long way in ensuring trouble-free cooling that lasts a lifetime. Towards this end, we recommend Voltas - V Service Stabiliser-an accompaniment that will make sure your air conditioner performs without fail.



Voltas Recommended Genuine Spare Parts

Any machine is as good as the components that go into it. That's why, we recommend the use of Voltas Genuine Spare Parts that come safely packed and sealed, ensuring zero tampering. So, if you want your air conditioner to deliver top performance and savings, always go in for Voltas Recommended Genuine Spare Parts.



Voltas Annual Maintenance Contracts

Only a Voltas AMC offers you complete peace of mind as it is backed by a nationwide network of service centers with well trained engineers. In addition, you can expect the following from a Voltas AMC:

- Voltas V Service Stabilise
- Use of genuine parts
- Professional complaint managemen
- Schemes available for four or more services in a year



Call 4 Care

The Voltas 24x7 Customer Care Center has a dedicated team of professionals who are ready to register and attend to your service requirements anytime of the day. You can also get in touch with us incase you have any queries regarding our products and services. Simply call us at Customer Care 9650694555/1860 599 4555 or SMC <AC> to 56677.



Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.



VOLTAS www.myvoltas.com

Registered Office: Unitary Products Business Group Voltas House, 'A', Dr. Babasaheb Ambedkar Road, Chinchpokli, Mumbai - 400 033 Tel.: 022-66656666. www.myvoltas.com



The manufacturer reserves the right to discontinue, or change at any time, specifications or designs without incurring any obligation.