

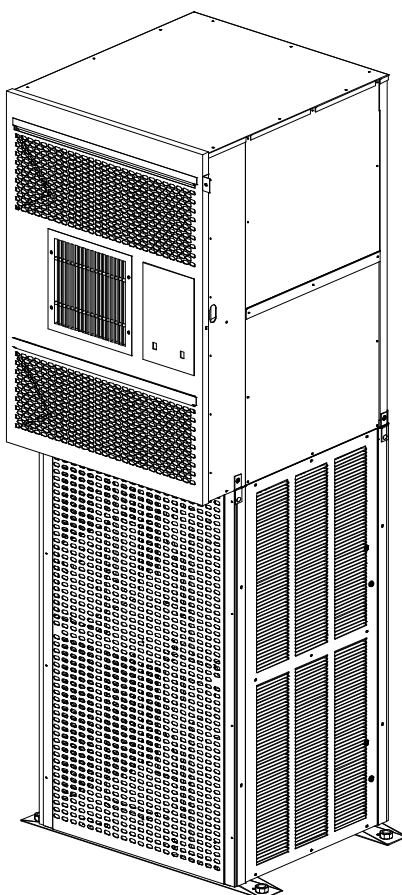
TELECOM AIR CONDITIONERS INSTALLATION INSTRUCTIONS

ENGLISH

- Please read this instruction sheet completely before installing the product.
- When the power cord is to be replaced, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with national wiring standards by authorized personnel only.

3TR SINGLE PHASE: LX-0346QC

4TR SINGLE PHASE: LX-0446QC



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1. The following should be always observed for safety

- The supplied unit requires 3 phase supply to operate, so please make sure to have authorised connection by the supply authority before connecting to the system.
- Be sure to read "THE FOLLOWING SHOULD BE ALWAYS OBSERVED FOR SAFETY" before installing the air conditioner.
- Be sure to observe the cautions specified here as they include important items related to safety.
- The indications and meanings are as follows.



WARNING

Could lead to death, serious injury, etc.



CAUTION

Could lead to serious injury in particular environments when operated incorrectly.

- After reading this manual, be sure to keep it together with the owner's manual in an accessible place.



WARNING

Do not install it yourself (customer).

- Incomplete installation could cause injury due to fire, electric shock, the unit falling or a leakage of water. Consult the dealer from whom you purchased the unit or authorised installer.

Perform the installation securely referring to the installation manual.

- Incomplete installation could cause a personal injury due to fire, electric shock, the unit falling or a leakage of water.

Install the unit securely in a place which can bear the weight of the unit.

- When installed in an insufficient strong place, the unit could fall causing injured.

Perform electrical work according to the installation manual and be sure to use an exclusive circuit.

- If the capacity of the power circuit is insufficient or there is incomplete electrical work, it could result in a fire or an electric shock.

Use the specified wires to connect the indoor and the outdoor units securely and attach the wires firmly to the terminal board connecting sections so the stress of the wires is not applied to the sections.

- Incomplete connecting and fixing could cause fire.

Attach the electrical part cover to the indoor unit and the service panel to the outdoor unit securely.

- If the electrical part cover of the indoor unit and/or the service panel of the outdoor unit are not attached securely, it could result in a fire or electric shock due to dust, water, etc.

Check that the refrigerant gas do not leak after installation is completed.

Be sure to use the part provided or specified parts for the installation work.

- The use of defective parts could cause an injury or leakage of water due to a fire, electric shock, the unit falling, etc.

Be sure the installation area does not deteriorate with age.

- If the base collapses, the air conditioner could fall with it, causing property damage, product failure and personal injury.

Be cautious when unpacking and installing the product.

- Sharp edges could cause injury. Be especially careful of the case edges and the fins on condenser and evaporator.

Do not modify or extend the power cable.

- There is risk of fire or electric shock.

Always install a dedicated circuit and breaker.

- Improper wiring or installation may cause fire or electric shock.

Use the correctly rated circuit breaker.

- There is risk of fire or electric shock.

Always ground the product.

- There is risk of fire or electric shock.

Do not use a defective or under rated circuit breaker. Use this appliance on a dedicated circuit.

- There is risk of fire or electric shock.

 CAUTION	
Perform the drainage/piping work securely according to the installation manual. • If there is a defect in the drainage/piping work, water could drop from the unit and household goods could be wet and damaged.	Do not install the unit in a place where an inflammable gas leaks. • If gas leaks and accumulates in the area surrounding the unit, it could cause an explosion.
Always check for refrigerant R-22 leakage after installing or repair of product. • Low refrigerant R-22 levels may cause malfunctioning of product.	Use two or more people to lift and transport the product. • Avoid personal injury.
Do not install the product where the noise or hot air coming from the outdoor unit could harm your neighbors. • It may cause problem to your neighbors.	Keep the level of your airconditioner as mentioned in manual to avoid vibration or water leakage.
Do not install the product where it will be exposed to sea wind (Salt spray) directly. • It may cause corrosion on product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.	

2. PRODUCT SPECIFICATION

2.1 PRODUCT DESCRIPTION:

Airconditioner is composed of evaporator unit and bcondensing unit. Evaporator unit is positioned on top of condensing unit and connected with interconnection pipes. Condenser section consists of compressor, propeller fan, fan motor and condenser coil. And Evaporator section consists of evaporator coil, centrifugal blower, blower motor and logical controller Airconditioner is equipped with dual independent Airconditioning cycle for reliability measures.

2.2 INSPECTION:

1. Check the damage after unit is unloaded, report promptly to the carrier, any damage found to unit. Do not drop the unit.
2. Open the Packing carefully to check the unit in upright position.
3. Check the unit dents, paint damage, tube pin offs, tube parts touching with sheet metals, mechanical components and electrical wires connections.
4. Condensing unit is precharged with R-22 gas from factory. ensure gas in condensing unit before installation.

2.3 TECHNICAL SPECIFICATIONS

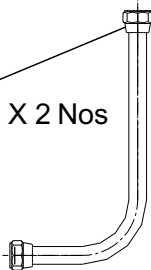
DESCRIPTION		UNITS	LX-0346QC	LX-0446QC
NOMINAL COOLING CAPACITY		TR	3.0	4.0
TOTAL COOLING CAPACITY		BTU/HR	18000 X 2	24000 X 2
		KCAL/HR	4500 X 2	6000 X 2
SENSIBLE COOLING CAPACITY		KCAL/HR	4050 X 2	5400 X 2
LATENT COOLING CAPACITY		KCAL/HR	450 X 2	600 X 2
NO OF REFRIGERANT CIRCUITS		NOS	2	2
COMPRESSOR	TYPE		SCROLL	SCROLL
	QTY	NOS	2	2
	MAKE		EMERSON	EMERSON
	MODEL		ZR22-K3PFJ	ZR28-K3PFJ
EVAPORATOR	FACE AREA	Sq.M	0.233	0.233
	QTY	NOS	2	2
	FIN DENSITY/ROWS	FPI/No	12/3	12/4
	MATERIAL OF TUBE/FIN		Cu/Al-Precoat	Cu/Al-Precoat
CONDENSER	FACE AREA	Sq.M	0.312	0.312
	QTY	NOS	2	2
	FIN DENSITY/ROWS	FPI/No	12/3	12/4
	MATERIAL OF TUBE/FIN		Cu/Al-Precoat	Cu/Al-Precoat
INDOOR MOTOR	TYPE		INDUCTION MOTOR	INDUCTION MOTOR
	QUANTITY	NOS	2	2
	POWER SUPPLY		230V-1PH-50Hz	230V-1PH-50Hz
	SPEED	RPM	1350	1350
	SHAFT DIAMETER	mm	17	17
	CLASS OF INSULATION		B CLASS	B CLASS
OUTDOOR MOTOR	TYPE		INDUCTION MOTOR	INDUCTION MOTOR
	QUANTITY	NOS	2	2
	POWER SUPPLY		230V-1PH-50Hz	230V-1PH-50Hz
	SHAFT DIAMETER	mm	12.7	12.7
	CLASS OF INSULATION		B CLASS	B CLASS
	FAN SPEED	RPM	1350	1350
BLOWER	TYPE		CENTRIFUGAL,FORWARD CURVE,DIDW	CENTRIFUGAL,FORWARD CURVE,DIDW
	QTY	NOS	2	2
FAN	TYPE		PROPELLER -AXIAL	PROPELLER -AXIAL
	FAN MATERIAL		ALUMINIUM	ALUMINIUM
	QTY	NOS	2	2
CONNECTIONS	CONDENSATE DRAIN SIZE	mm	19	19
	GAS OUTLET SIZE,ODXTHK	mmxmm	15.8x1.0	15.8x1.0
	LIQUID INLET SIZE,ODXTHK	mmxmm	9.52x1.0	9.52x1.0
	(A)WIDTH	mm	695	695
	(B)DEPTH	mm	770	770
	©HEIGHT	mm	1020	1020
WEIGHT-INDOOR	WEIGHT GROSS	KGS	95	100
	WEIGHT NET	KGS	90	95
OVERALL DIMENSION-OUTDOOR	WIDTH	mm	695	695
	DEPTH	mm	630	630
	HEIGHT	mm	1170	1170
	WEIGHT GROSS	KGS	135	140
	WEIGHT NET	KGS	125	130

3. INSTALLATION STANDARD

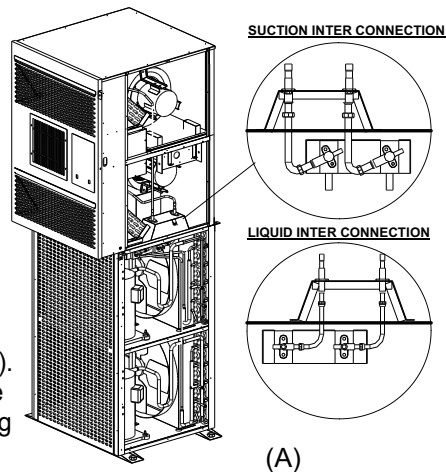
3.1 PRE-CHECK:

1. Airconditioner is provided with interconnecting pipe from factory before installation check the Interconnecting flared piping in Condensing unit.
2. Check the piping as per size details

FLARED TYPE INTERCONNECTING PIPING	SIZE X QTY.
SUCTION LINE INTERCONNECTING PIPING	5/8 inch X 2
LIQUID LINE INTER CONNECTING PIPING	3/8 inch X 2

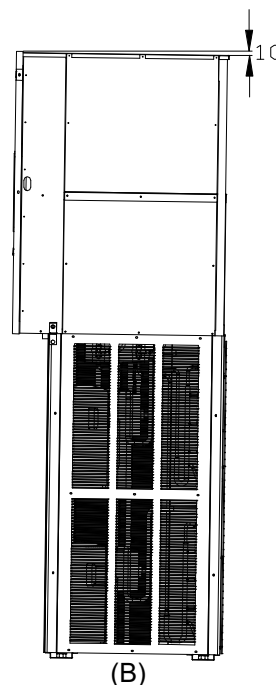
Suction Line.Pipe (2 nos)	Liquid Line.Pipe (2 nos)
 Flare nut 5/8" X 2 Nos	 Flare nut 3/8" X 2 Nos

3. Positioned the Indoor unit over Top of condensing unit and bolted indoor with outdoor after fixing indoor to shelter cut-out portion.
4. Check there should not be any dents, dust in interconnecting piping.
5. Wrap Teflon tape in direction of thread to the connectors & service valve before placing flared tubing.
6. Align the centre of the pipings (2 suctions & 2 liquids) and sufficiently tighten the flare nut with fingers.
7. Finally tighten the flare nut with torque wrench until the wrench clicks (40-80kgf). When tightening the flare nut with torque wrench, ensure the direction of tightening follows the arrow of wrench.



3.2. Levelling of Airconditioner

After placing the unit on Channel/concrete structure maintain the levelling of unit towards rear side with 10mm slope so as to ensure free flow construction free drainage. Water seepage problem may happen due to improper levelling of unit.

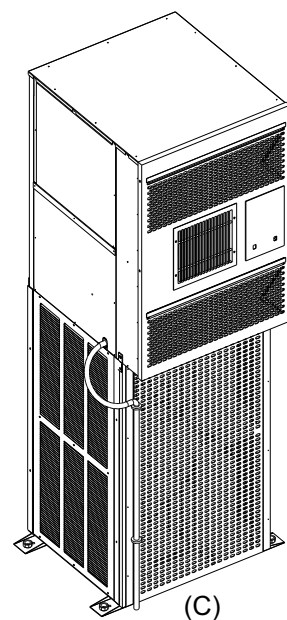


3.3. Shelter Cutout sealing

Angle flanges (4 nos) are provided with unit. These flanges are to be fixed with shelter wall after installation so as to prevent any leakage in shelter. after fixing the flanges; apply silicon sealant on edges of flanges to make complete leak free cut-out.

3.4. Condensate Drain pipe

1. Air conditioner is provided with one flexible drain pipe, which shall be connected to metal Drain pipe of unit & should be routed through gap between shelter wall and condensing unit (see fig. C).
2. Do Not leave drain pipe open, your airconditioner may suck condensate water and cause splitting of water inside the shelter.



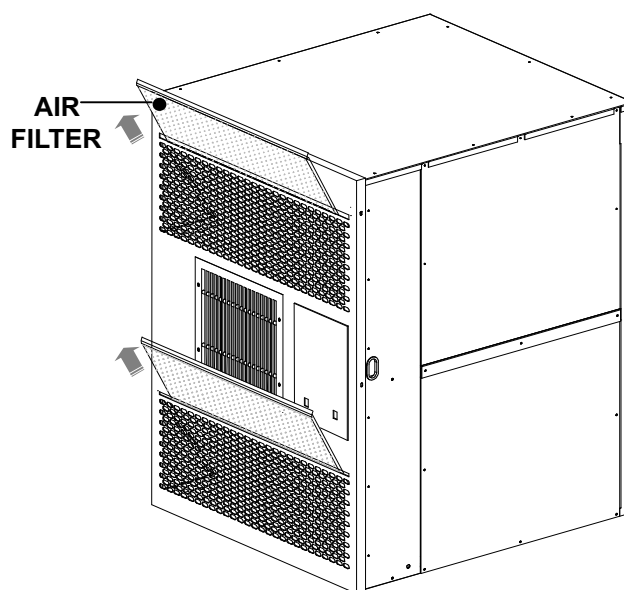
3.5. Air purging of inter connection & Indoor unit

The air which contains moisture remaining in the refrigeration cycle may cause malfunction of compressor.

1. Confirm the both liquid valves & gas valves are set to closed position.
2. After connecting the piping, check the joints for gas leakage with gas leak detector.
3. Remove the service port nut, and connect the gauge manifold and vacuum pump to the service port by charge hose.
4. Vacuum the indoor unit & connecting pipes until the pressure in them lowers to below 76 cmHg.
5. Remove the valve stem nuts, and fully open the stems of service valves with hexagon wrench. & Tight the flare nuts of indoor & outdoor unit.
6. Purge the gas qty-80grams in each circuit to remove moist air contents.
7. Disconnect the charge hose and fit the nut to the service port.
(Tightening torque:1.8kg.m)

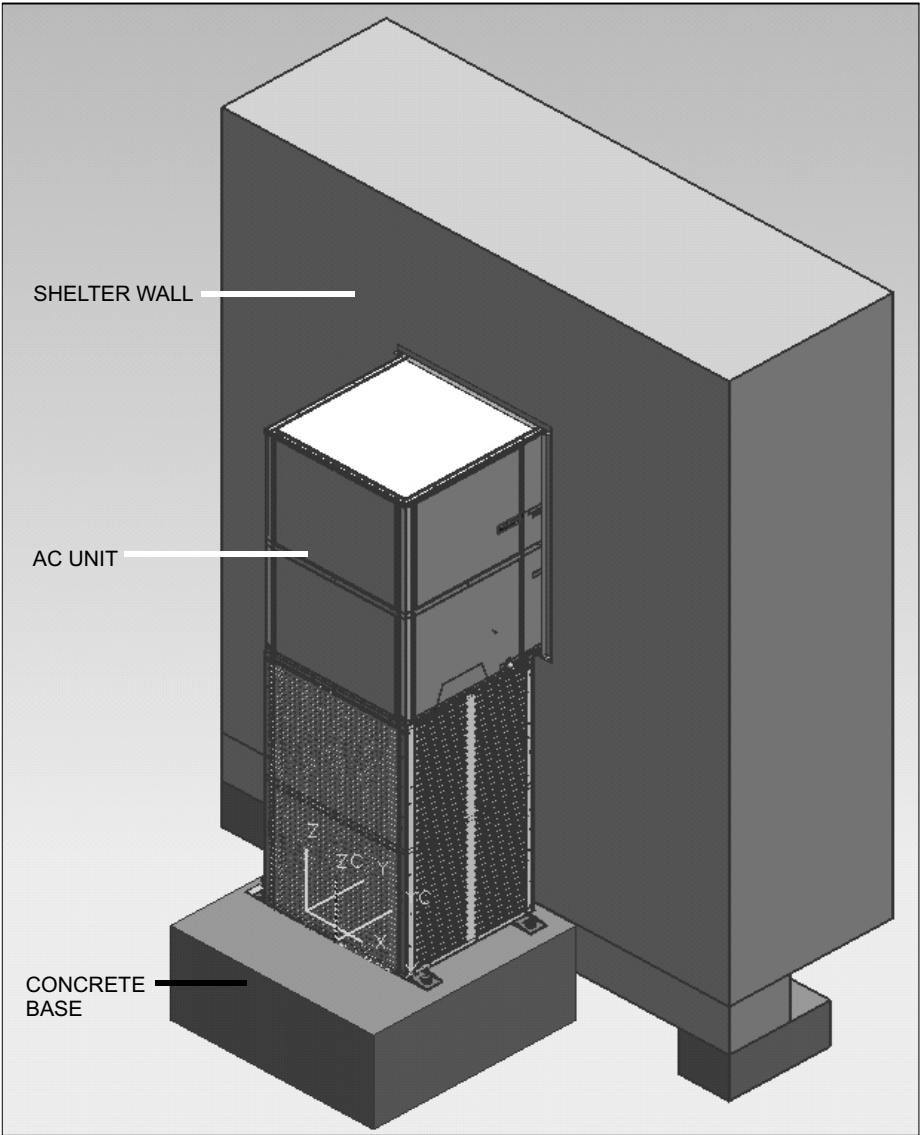
3.6. Filter Cleaning

The Airconditioner is equipped with fine air filter (2 nos.). The Air filter are at front of unit shall be checked and cleaned every month or more often if necessary.

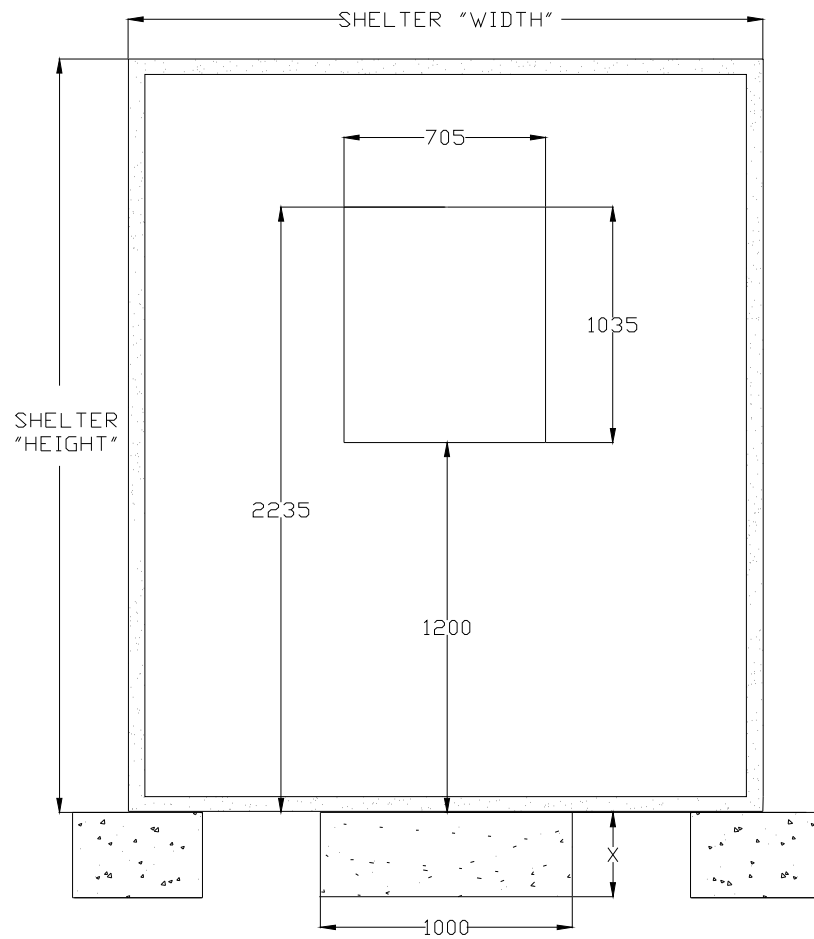


**3.7. INSTALLATION DRAWING - CASE 1 :
CONCRETE BASEMOUNTING**

ENGLISH



SHELTER CUT-OUT SIZE: 705mm (WIDTH) X1035mm (HEIGHT)

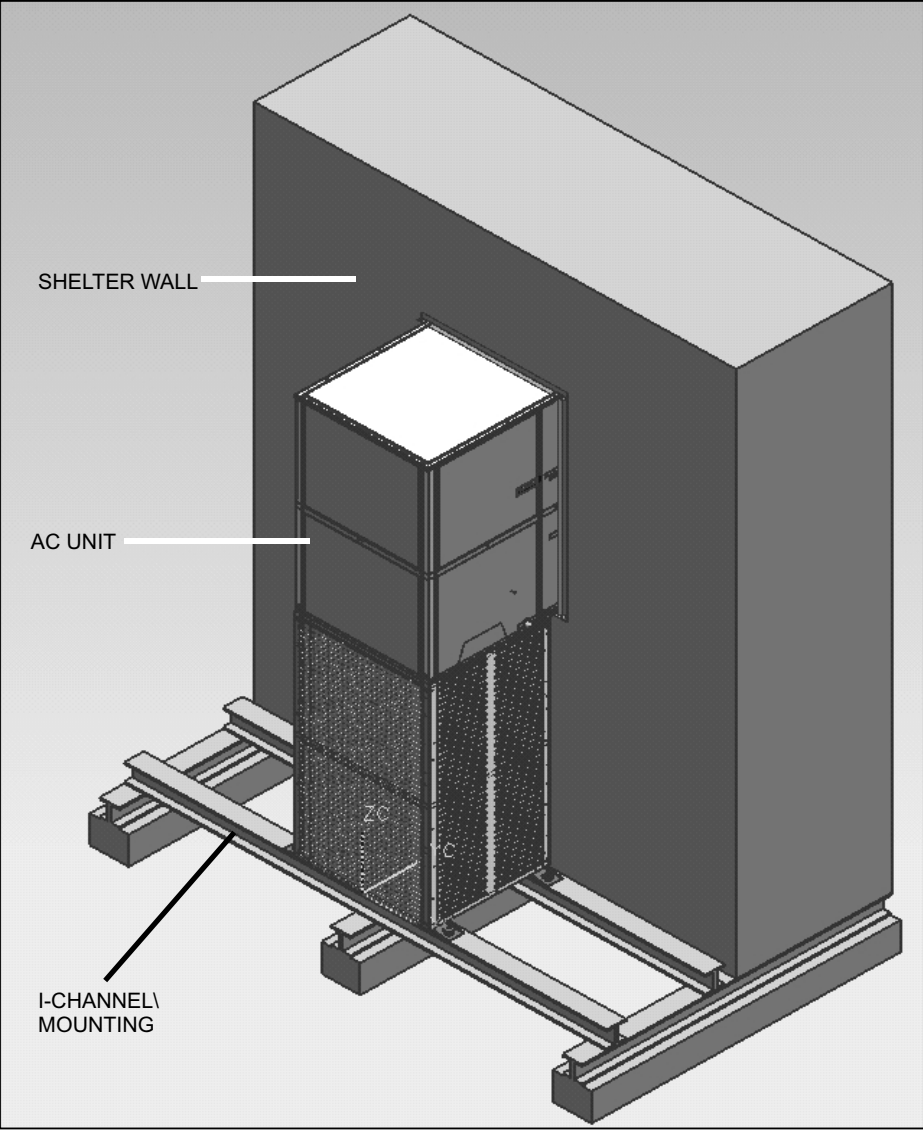


NOTE:

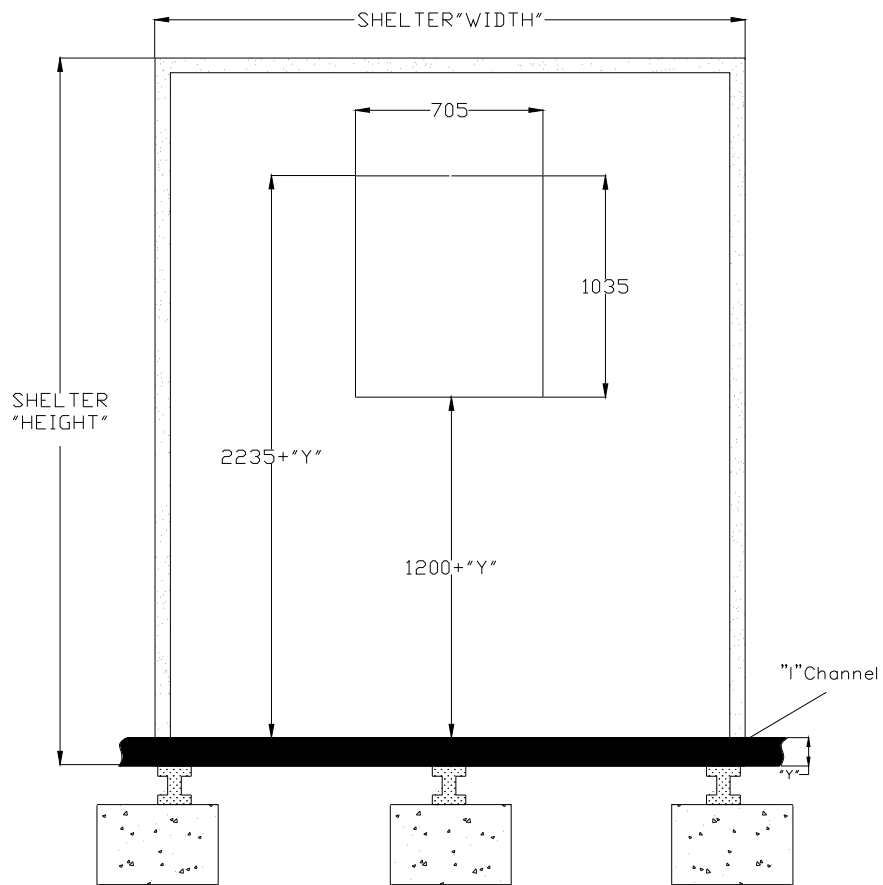
Concrete top should be in level of shelter base. All measurement have been taken from concrete top (levels with shelter base) in mm.

**INSTALLATION DRAWING - CASE 2 :
CHANNEL BASE MOUNTING**

ENGLISH



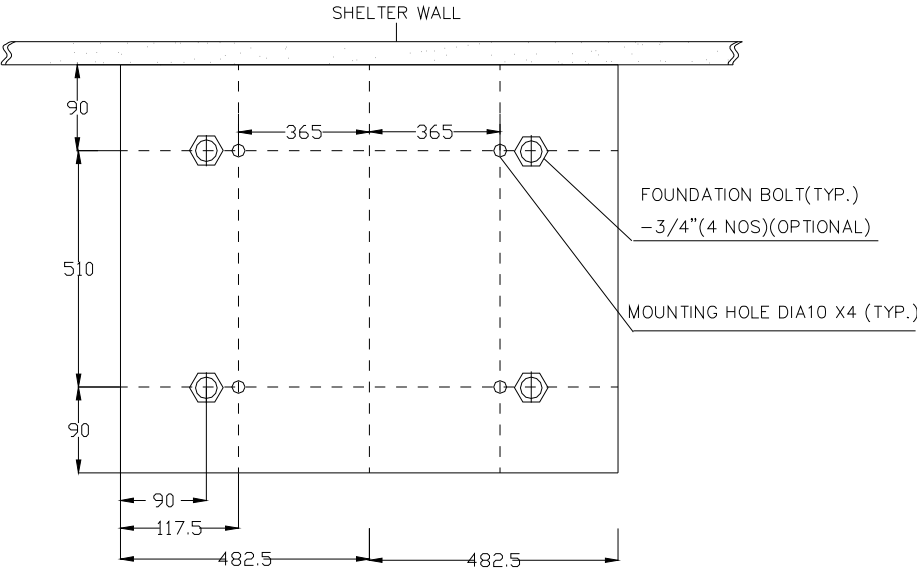
SHELTER CUT-OUT SIZE: 705mm (WIDTH) X1035mm (HEIGHT)



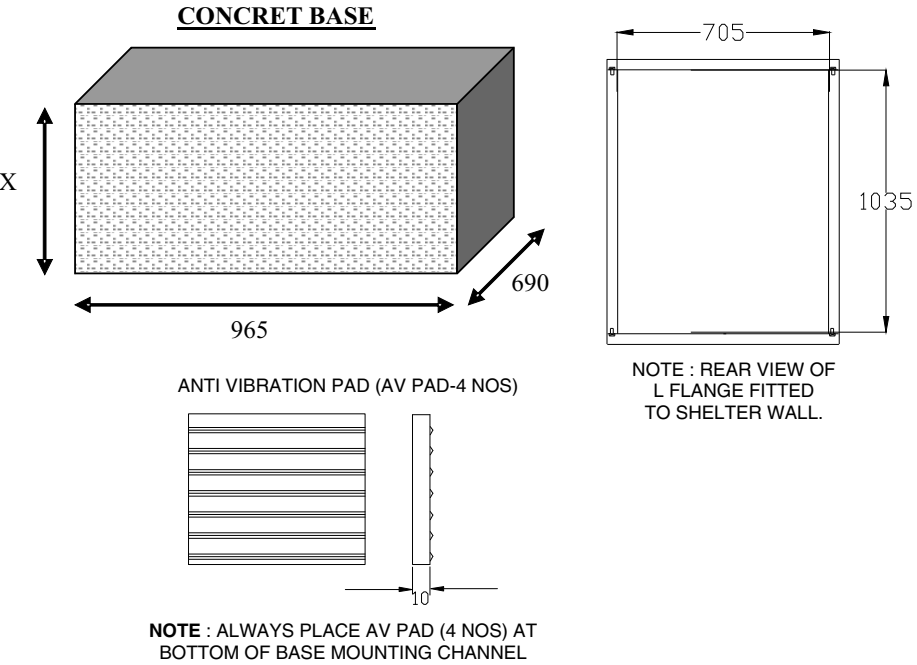
NOTE:

Shelter should be based on I beam and unit base should be mounted on cross beam as shown in diagram.

3.8. INSTALLATION DRAWING : FOUNDATION



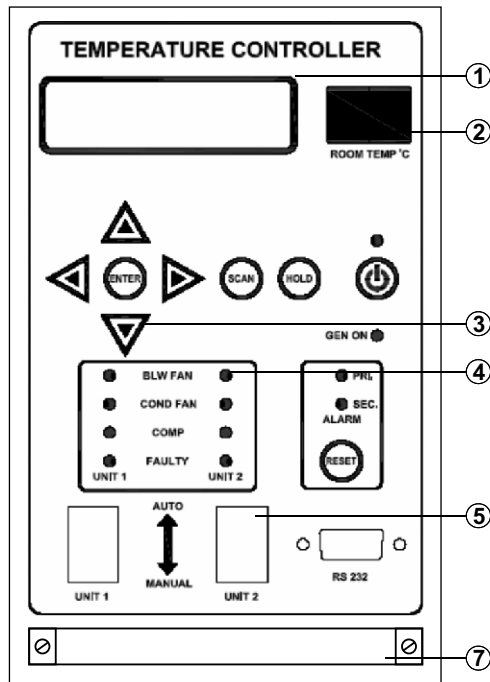
NOTE : IN CASE OF USING FOUNDATION BOLT (OPTIONAL) CUTOUT HEIGHT SHALL BE INCREASED AS PER HEIGHT OF FOUNDATION BOLT.



NOTE : ALWAYS PLACE AV PAD (4 NOS) AT BOTTOM OF BASE MOUNTING CHANNEL

4. CONTROLLER

4.1. DISPLAY & INDICATORS



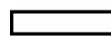
LEGENDS

- ① 2x16 LCD with backlight
- ② 7 Segment display
- ③ Key Pad
- ④ LED indicator
- ⑤ Rocker Switch
- ⑥ RS-232 Port
- ⑦ Alarm Terminal Box

LEDS

- Blower Fan ON : Green
- Condenser Fan ON : Green
- Compressor ON : Green
- Unit Fail : Red
- Primary Alarm : Red
- Secondary Alarm : Red
- Generator ON : Green
- ON/OFF : Green

LCD

 :2X16 LCD Parameters Display

7-Segment

 :Dual Digit 7-Segment Red Colour Display

KEY PAD

- ❖ ON / OFF : To make the system ON/OFF
- ❖ ▲ : To increase the values / parameters
- ❖ ▼ : To decrease the values / parameters
- ❖ ◀ : To move the cursor left direction

- ❖ ▶ : To move the cursor right direction
- ❖ ENTER : To enter the selected parameter
- ❖ SCAN : To scan the LCD reading
- ❖ HOLD : To hold the LCD reading
- ❖ RESET : To mute / reset errors / alarms

4.2. CONTROLLER: Pre-Start up Instructions

- Check the transit damage to controller before carrying out power supply connection to controller in airconditioner.
- Connect the proper power supply to airconditioner as per specification.
- Place the thermister sensor in correct position. Grille sensor AC1& AC2 are factory fitted to supply air duct of individual compartment. Room Air Sensor to be fix on specified location to sense correct room temperature
- Connect the Alarm Cable to Alarm Connector.
- Keep rocker switch (Auto/Manual) in Auto Position.
- After switching ON the main supply ,Green LED will glow & unit status AC1&AC1 parameters will be displayed on LCD in scrolling mode.

4.3 Operations

Sr.	Operation/Alarm	Description	Range	Factory set	Alarm Type	Reset Type
1	Room Temperature set	setting of desired room temperature	16°C-30°C	25°C	----	----
2	Cooling Range	temperature range between AC1& AC2 startup/switching OFF	1°C-5°C	2°C	----	----
3	Room temperature low Alarm set	when Room temperature goes below set room low temperature.and retains for 60seconds.reset automatically after when room temperature = set temp+1°C	10°C-23°C	14°C	Primary	Auto
4	Room temperature High Alarm set	when Room temperature goes above set room high temperature.and retains for 60seconds.reset automatically after when room temprature = set temp-1°C	26°C-40°C	32°C	Primary	Auto
5	Grille Low Alarm set	when grille temperature goes below the set grille low temp.checks every 10mins after switching ON of compressor.resets when grille temperature goes 5 °C above	0°C-8°C	2°C	Secondary	Auto
6	Grille High Alarm set	Alarm will be generated when grille temperature goes above the set grille high temp.checks every 10mins after switching ON of compressor.	10°C-22°C	22°C	Secondary	Manual
7	Overload set	Unit draws abnormal high current,when current reaches the set limit.after 3 consecutive trials ;unit trips and alarm is raised.	5A-25A	15A	Secondary	Manual
8	Underload set	Unit draws less current then set value.after 3 consecutive trials ;unit trips and alarm is raised.	5A-25A	5A	Secondary	Manual
9	High Voltage set	when supply voltage goes above the set high voltage limit,alarm will be generated,resets automatically when voltage drops down by 15V.	250V-280V	250V	Secondary	Auto
10	Low Voltage set	when supply voltage goes below the set low voltage limit,alarm will be generated,resets automatically when voltage ups by 15V.	150V-200V	200V	Secondary	Auto
11	ON delay between AC1&AC2	The standby unit will start after this set delay from duty compressor ON.This will be active after active sequence of the unit.	10sec-300sec	10sec	---	---
12	Under Load delay	If this set is "0" compressor & condenser fan under current checking will be skipped.	0 min-15 min	1 min	---	---
13	Duty Cycle	refers to run time of AC1&AC2.Duty cycling will be skipped in the event of failure of duty unit.	1Hr-12Hr	3Hr	---	---
14	Minimum Run time		10sec-180sec	30sec	---	---
15	HP	When error switch is open	---	---	Secondary	Manual
16	LP	When error switch is open	---	---	Secondary	Auto
17	Condenser Fan fail	if condenser fan not working after giving ON command	---	---	Secondary	Manual
18	Room sensor fail	alarm generated when room sensor is faulty or not connected to controller port	---	---	Primary	Auto
19	Grill-1 sensor fail	alarm generated when grill-1 sensor is faulty or not connected to controller port	---	---	Primary	Auto
20	Grill-2 sensor fail	alarm generated when grill-2 sensor is faulty or not connected to controller port	---	---	Primary	Auto
21	Gadget Address	operation safey	001-254	099	---	---
22	Administrative password	operation safey	---	1111	---	---

Thermostatic operation

Duty compressor & condenser fan cut-OFF	Set-1°C
Duty compressor & condenser fan cut-IN	Set+1°C
Standby compressor & condenser fan cut-OFF	Set+Cooling range-1°C
Standby compressor & condenser fan cut-IN	Set+Cooling range-1°C

Note:

- If both the compressors are OFF due to Thermostatic operation, duty blower will continue to run.
- The standby blower will get switched OFF after 30 ± 5 seconds from the time of switching OFF the compressor.
- The compressor & condenser fan will switch OFF simultaneously.

Switch ON sequencing:

Duty blower ON	5±2 sec
Duty Condenser fan ON	125±5 sec
Duty compressor ON	185±5 sec
Standby blower ON	190±5 sec
Standby Condenser fan ON	310±5 sec
Standby compressor ON	370±5 sec

Switch OFF sequencing:

Standby compressor OFF	0 sec
Standby Condenser fan OFF	60±5 sec
Standby blower OFF	180±5 sec
Duty compressor OFF	185±5 sec
Duty Condenser fan OFF	245±5 sec
Duty blower OFF	365±5 sec

Note:

- During the main power ON, 7 ± 2 secs delay will be added to above switch ON sequence, this is unit initialization delay.
- After the initial switch ON sequence, the minimum ON delay set between the units will be active for any further switch ON & after this delay the standby blower, condenser fan & compressor will get switched ON one by one. If the minimum ON delay is more than the actual sequence delay, then standby blower will get switched ON after min delay from time of switching on of duty compressor, standby condenser fan will get switched on after 10secs from the time of Standby blower on and standby compressor will get switched on after 30 secs from time of standby condenser fan ON.
- When switch ON the controller or during duty change over, the least worked unit will come as duty unit.

4.4. LCD Operation Menu

LCD Menu Details

When switch ON the main power of the controller, the LCD will show,

KEY BOARD CHECK
DON'T PRESS KEYS

❖ While keyboard checking, do not press any keys. If pressed, "key board fail" alarm will be generated. To reset the alarm, switch OFF / ON the main power.

Then the LCD will show,

INITIALIZING
PARAMETERS

After initialization, the LCD starts indicating the unit status by scrolling automatically. The following are the displays,

U1 : STATUS
UNIT ON

U1 : GRILL TEMP
13°C

U1 : VOLTAGE
220V

U1 : CURRENT
10.0A

U1 : RUN TIME
0002 Hrs 02 Min

U2 : STATUS
UNIT ON

U2 : GRILL TEMP
13°C

U2 : VOLTAGE
220V

U2 : CURRENT
10.0A

U2 : RUN TIME
0005 Hrs 10 Min

ROOM TEMPERATURE
24°C

To change the setting, press the enter switch. LCD will prompt for GUEST or ADMINISTRATOR account. Password protection is provided for the administrator account. The display is as follows for GUEST level,

SELECT ACCOUNT
GUEST

Press the enter switch. Now the display prompts to select the required menu in the main menu. The main menu could be selected by using the / switches. The main menus are,

MAIN MENU
STANDARD SETTING

MAIN MENU
REPORTS

MAIN MENU
EXIT

In administrator level, the main menu "SYSTEM SETTING" is also available. This is explained last.

MENU
STANDARD SETTING

Select the menu STANDARD SETTING and press the enter switch. The sub menus and settings under this menu is as follows,

STANDARD SETTING
SET TEMPERATURE

Press the enter switch

SET TEMPERATURE
24°C

Select the required set value (set range is 16 to 30°C), then press the enter switch.

STANDARD SETTING
COOLING RANGE

Press the enter switch

COOLING RANGE
02°C

Select the required value and press the enter switch

STANDARD SETTING
HIGH TEMP SET

Press the enter switch

HIGH TEMP SET
35°C

Select the required value and press the enter switch

STANDARD SETTING
LOW TEMP SET

Press the enter switch

LOW TEMP SET
10°C

Select the required value and press the enter switch

STANDARD SETTING
GRILL TEMP SET

Press the enter switch

GRILL TEMP SET
UNIT (1)

Press the enter switch

UNIT 1 GRILL TEMP
ENABLE (Y/N)? Y

If enabled, the display will prompt to set the values.
Otherwise, it will prompt to select the next unit

UPPER LIMIT SET
22°C

Select the required value and press the enter switch

LOWER LIMIT SET
05°C

Set the required value and press the enter switch.
The display will prompt to set the "unit 2" grill set
values. After setting "unit 2" grill values press the
enter switch.

Now the LCD will prompt to set the "unit current"
setting

STANDARD SETTING
CURRENT SENSE

Press the enter switch

CURRENT SENSE
UNIT (1)

Press the enter switch

UNIT 1 CURRENT
SENSE (Y / N)? Y

If enabled, the display will prompt to set the values.
Otherwise it will prompt for the unit 2 setting

Press the enter switch

OVER LOAD SET
10

Press the enter switch. Now the display will prompt
to set the under load sense delay. The under load will
be sensed after this relay. This can be set from 0 to 15
minutes. If the set is "0" the controller will skip the
under load sensing.

UL SENSE DELAY
01

Press the enter switch, now the display will prompt
to set the under load. The under load could be set
from 1 to 10 Amps.

UNDER LOAD SET
04

Press the enter switch, now the display will prompt
to set for unit 2. After setting unit 2 values press the
enter switch.

Now the display will prompt to set the voltage.

STANDARD SETTING
VOLTAGE SENSE

Press the enter switch

VOLTAGE SENSE
UNIT (1)

Press the enter switch

UNIT 1 VOLTAGE
SENSE (Y / N)? Y

If sensing is enabled the display will prompt to set
the values. Otherwise it will prompt to set for unit 2.

Press the enter switch

HIGH VOLTAGE SET
250V

Press the enter switch

LOW VOLTAGE SET
180V

Press the enter switch. Now the display will prompt for the "unit 2" setting. After setting "unit 2" values press the enter switch. This will prompt to set the minimum run time of compressors.

STANDARD SETTING
MINIMUM RUN TIME

Press the enter switch

MINIMUM RUN TIME
150 SEC

Press the enter switch. Now the display will prompt to set the duty blower ON when both the compressors are tripped due to error.

STANDARD SETTING
DUTY BLOWER

Press the enter switch

DUTY BLOWER
YES

Press the enter switch, now the display will show the next main menu.

MAIN MENU
REPORTS

Press the enter switch

REPORTS
ERROR HISTORY

Press the enter switch, now we can see the last occurred errors with date and time (maximum is 60 errors).

U2: COND UL 01
AT 12 : 45 08 / 07 / 05

To exit from this menu, press the "◀" switch. Now the LCD will show the screen below.

REPORTS
ERROR HISTORY

Press the down switch. Now the LCD will show the following screen.

REPORTS
TEMPERATURE LOG

Press the enter switch

UNIT READINGS
MAX TEMPERATURE

Press the enter switch

08 / 07 / 06 10 : 10
33°C

Press the enter switch

UNIT READING
MIN TEMPERATURE

Press the enter switch

08 / 07 / 06 10 : 30
20°C

Press the enter switch. Now the LCD will show -

REPORT
TEMPERATURE LOG

Press the down switch

REPORTS
CLEAR HISTORY

Press the enter switch

CLEARED ...

Press the enter switch

REPORTS
CLEAR HISTORY

Press the down switch

REPORTS
CLEAR LOG

Press the enter switch

CLEARED ...

Press the enter switch

REPORTS
CLEAR LOG

Press the down switch

REPORTS
CLEAR RUN TIME

Press the enter switch

CLEARED

Press the enter switch

REPORTS
CLEAR RUN TIME

Press the down switch

REPORTS
EXIT

Press the enter switch

MAIN MENU
EXIT

In order to get the main menu SYSTEM SETTINGS switch OFF the controller using the ON / OFF switch provided in the front panel.

Press the enter switch

MAIN MENU
SYSTEM SETTINGS

Select ADMINISTRATOR
Enter the password. Factory set password is "1111".

Press the enter switch

SYSTEM SETTINGS
NO. OF UNITS

Press the enter switch

NO. OF UNITS
02

Press the enter switch. Now the "time delay" menu will appear. This is the switch ON delay between two units.

SYSTEM SETTINGS
TIME DELAY

Press the enter switch

TIME DELAY
50 SEC

Press the enter switch

SYSTEM SETTINGS
DUTY HOURS

Press the enter switch

DUTY HOURS
02 Hr

Press the enter switch

SYSTEM SETTING
GEN SET RUN UNIT

Press the enter switch, now the LCD will prompt to enable / disable stand by unit.

STAND BY
ENABLE

When "stand by" is enabled, both the units will work in generator mode. If disabled, only duty unit will work, however duty cycling will take place.

Press the enter switch

SYSTEM SETTING
GADGET ADDRESS

Press the enter switch

GADGET ADDRESS
099

The gadget address can be selected from 000 to 199. Select the address and press the enter switch. Now the display will prompt for password setting.

SYSTEM SETTING
PASSWORD SETTING

Press the enter switch

ADMINISTRATOR
OLD PASSWORD

Press the enter switch

OLD PASSWORD
0000

Press the enter switch

NEW PASSWORD
0000

Press the enter switch

CONFIRM PASSWORD
0000

Press the enter switch

CHANGED
SUCCESSFULLY

Press the enter switch

SYSTEM SETTINGS
DATE

Press the enter switch

DATE
10 / 10 / 05

Press the enter switch

SYSTEM SETTINGS
TIME

Press the enter switch

TIME
10:50:00

Press the enter switch. Now the LCD will prompt to set the RS232 (PC) communication type.

SYSTEM SETTING
COMM. SETTING

Press the enter switch. One could select PC (PPP) or PC (NORMAL) using up / down switches. PC (PPP) is the point to point protocol communication. PC (NORMAL) is the common serial communication.

COMM SETTING
PC (PPP)

Press the enter switch. In PC (PPP), one could select SLAVE MODE or INDEPENDENT. Slave mode could be used when the controller is working as a slave controller. Independent mode is used to connect the controller in a PC in PPP communication, select the required mode and press the enter switch. Now the LCD will prompt to set the baud rate. Factory set is 9600bps.

BAUD RATE
9600

One could select the baud rate as 9600 / 19200 / 38400 / 57200 bps using the up / down switches. Select the required baud rate and then press the enter switch. Now the display will prompt to select Test mode.

SYSTEM SETTINGS
TEST MODE

Press the enter switch. One could select "Enable" / "Disable" using the up / down switches.

TEST MODE
DISABLE

Test mode is to test the duty cycle time. In this the duty time will be reduced in the ratio of 1 hour to 4 minutes.

Press the enter switch.

SYSTEM SETTINGS
EXIT

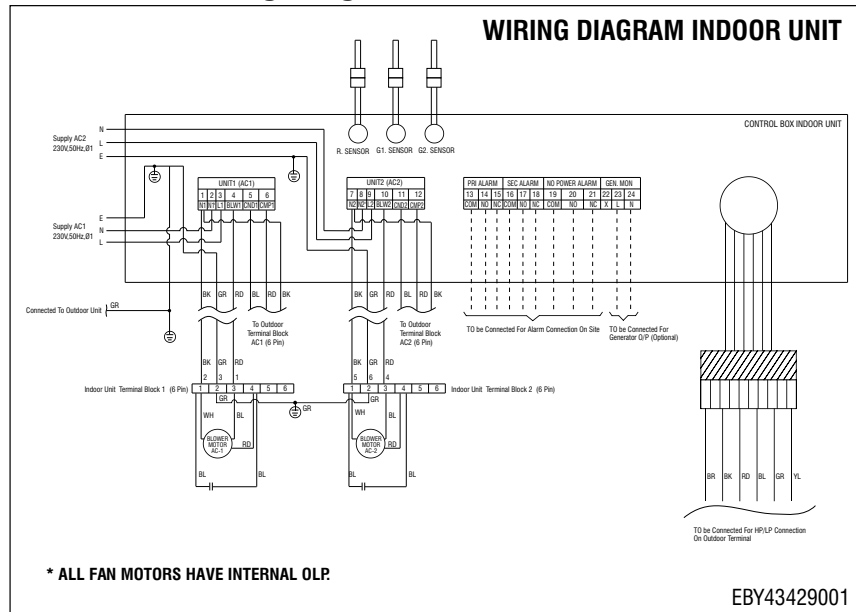
5. TROUBLE SHOOTING

5.1 Symptoms & Problems

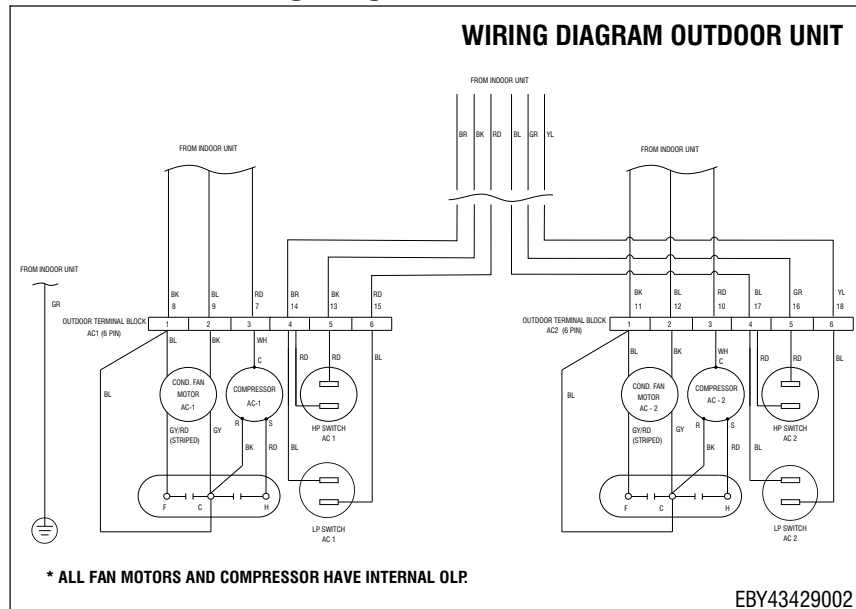
CLASS	PROBLEM	CAUSE	REMEDY
MECHANICAL	Unit not cooling	Dirty Evaporator coil/dirty filter	clean coil/filter
		capillary choked	replace capillary
		condenser coil blockage	clean condenser coil
		gas leakage	rectify the leak/charge R-22
		condenser fan not working	check fan/rectify/replace motor,fan
		evaporator blower not working	check blower/rectify/replace motor,blower
		loose connection/electrical wiring	tightening of wires/correct wiring as per electrical diagram
		air leakage in AC1&AC2 or air bypassing inbetween	block air leakage of each section,prevent airgaps between ac1&ac2 compartments
		evaporator compartment insulation weak	properly insulate the compartment with PE Foam-15mm
		blower reverse direction	correct the rotation by interchanging motor direction snap socket connection
	Unit Noisy	structure vibration	always place anti vibration pad on base channel.
		blower /fan loose	tight the blower/fan properly
		motor loose on mountings	tight the motor on mountings
		compressor mountings loose	properly tight compressor mounting
		motor shaft jamming	replace bearings/improve lubrication/replace motor
		loose panels	tight the panels properly
		blower alignment	align the blower in centre of housing with equal gaps
		hissing noise due to improper R-22 charge	Charge the Refrigerant as per Quality label
		compressor internal part damage	replace compressor
	Water Sewage	drain choke	check drain pipe and clan the drain
		unit not levelled	maintain complete unit slope 10mm towards rear side
ELECTRICAL	unit do not operate	Improper power supply	rectify power supply to the unit
		compressor faulty	replace compressor
		motor indoor/outdoor faulty	replace motor
		loose wiring	tight wires
		wrong wiring	do proper wiring as per circuit diagram
		Neutral fail	check neutral and rectify
		fuse burnt	replace the fuse
CONTROLLER SIDE	Compressor tripping	Unit overload	check unit current sensing/check R-22 Charge/check or replace compressor/motor(if abnormal)
		Unit underload	check unit current sensing/check R-22 Charge
		HP/LP operation	check sytem pressures/reset Alarms
		Room High	check room high setting/unit not cooling (check steps mentioinedf above & rectify)
		Room Low	check room low setting/R-22 over charged-correct it/correct setting
		Grille low	check grille low setting/filter choked/fan motor faulty/over gas charged/rectify
		Grille high	check grille high setting/gas leakage/air leakage/rectify
		Voltage-low/high	use proper voltage stabliser/check Hi/Low voltage settings/rectify
		sensor faulty	check sensor properly tight fitted/damage(if any)/replace/rectify
		cond fan failed	check motor/fan/rectify or replace/manual reset
	only one AC Running	one AC in manual mode	switch AC IN Auto mode
		Rooms sensor faulty	replace/rectify sensor
		Line failure	Check power supply
		due to any fault	reset the power supply after checking the fault

6. ELECTRICAL WIRING DIAGRAM

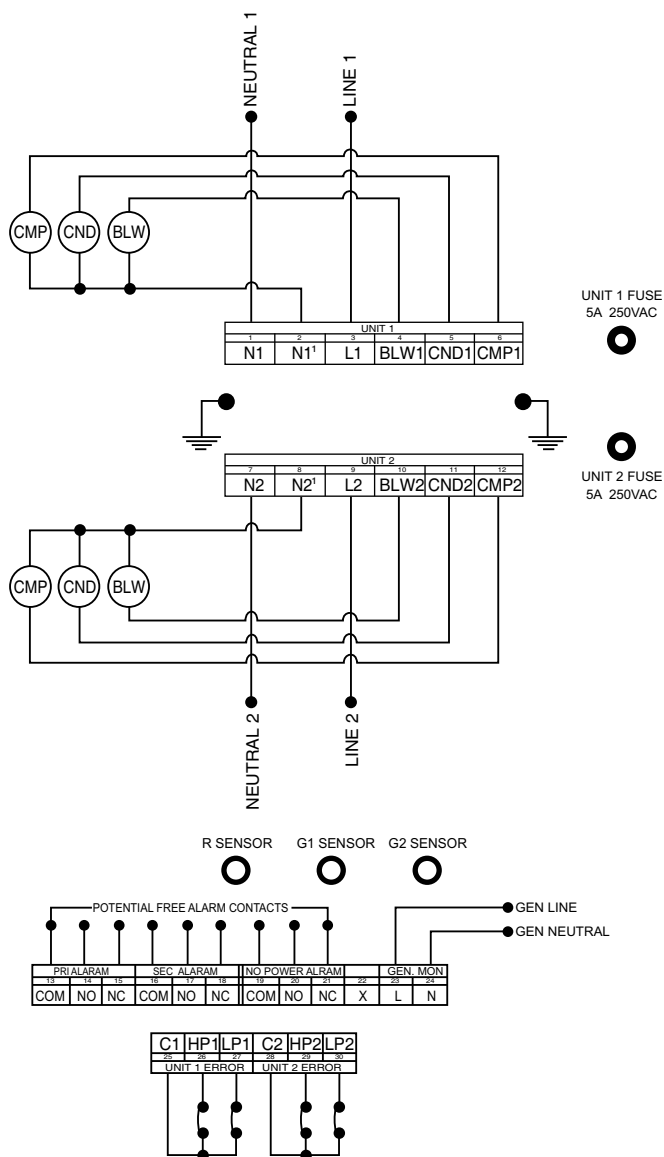
6.1. Indoor Wiring Diagram



6.2. Outdoor Wiring Diagram



6.3 Controller Connection Diagram

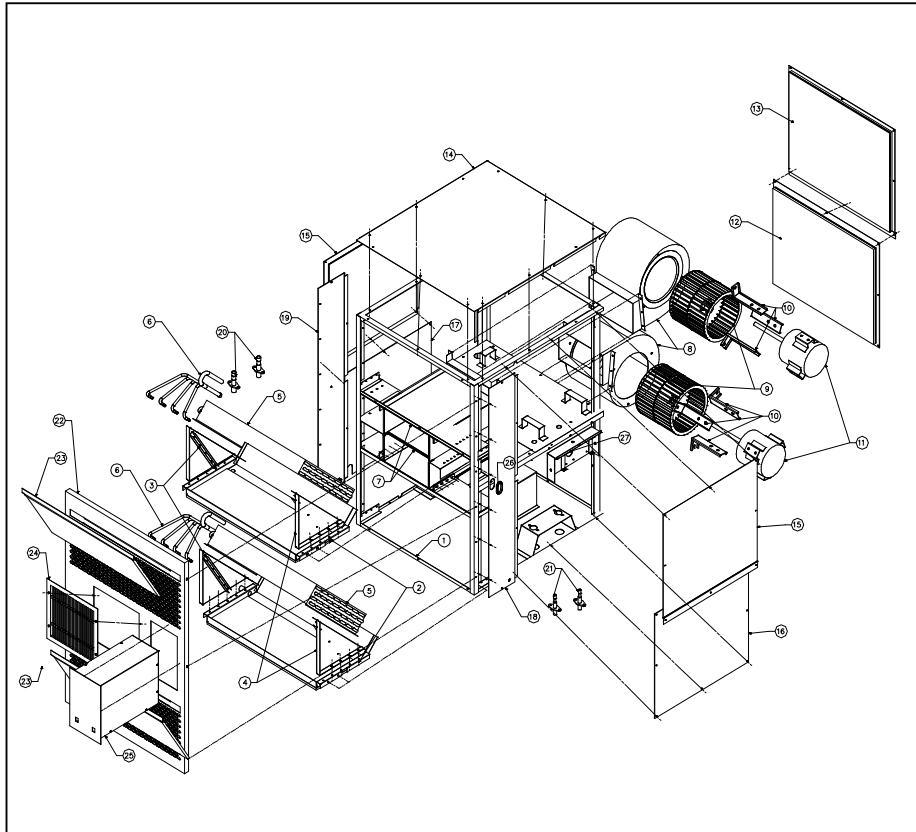


Model	Tonnage	MCB/Circuit	Power Cable/Circuit
LX-0346QC	1.5Tr x 2	32 AMPS	2.5mm2 x 3 core
LX-0446QC	2.0Tr x 2	32 AMPS	2.5mm2 x 3 core

- Note :-**
1. In error section, "C1" terminal is internally linked with "L1" and "C2" is internally linked with "L2".
 2. All the error switches should be closed on no error condition.

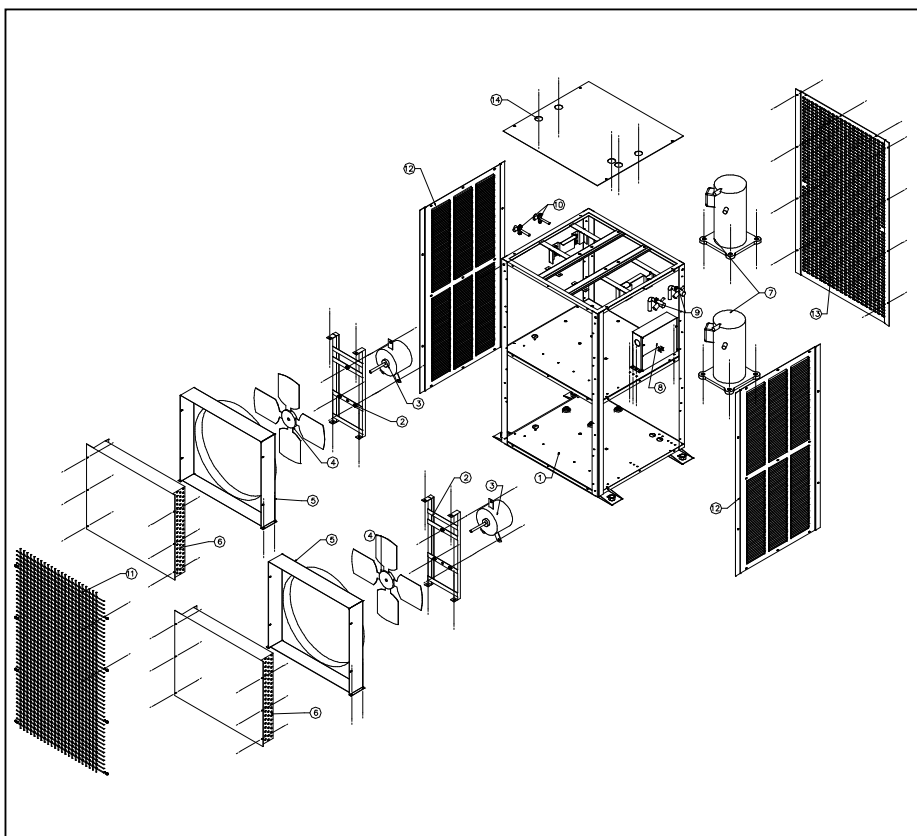
7. EXPLODED VIEW

7.1 Indoor Unit



EXPLODED VIEW

7.2 Outdoor Unit



ENGLISH

7.3 Part List

INDOOR UNIT (Model:LX-0346QC/LX-0446QC)				
S.No.	Item	Part no.	Unit	Qty
1	Structure assy-IDU	AJT33363001	Nos	1
2	Drain pan top / bottom	MGB38338801/MGB38338803	Nos	2
3	Guide filter	MEA38341302	Nos	2
4	Coil support right/left	MJH38340402/MJH38340602	Nos	2
5	Evaporator coil 3Tr/4Tr	ADL34540001/ADL33243301	Nos	2
6	Header Eva out	MJU40017201	Nos	2
7	Supply duct	MEK38341602	Nos	1
8	Blower housing	3661A20027C/D	Nos	2
9	Blower	ADP33243201/02	Nos	2
10	Mount motor	ABA33322602	Nos	6
11	Indoor motor	EAU37399301	Nos	2
12	Rear panel bottom	MGC38294402	Nos	1
13	Rear panel top	MGC38294302	Nos	1
14	Top panel	MCK38292602	Nos	1
15	Panel side top	MGC38294502	Nos	2
16	Panel side bottom left	MGC38336202	Nos	1
17	Panel side bottom right	MGC38329802	Nos	1
18	Panel side big right	MGC38294002	Nos	1
19	Panel side big Left	MGC38294004	Nos	1
20	Valve quick-5/8 inch	5220A30016D	Nos	2
21	Valve quick-3/8 inch	5220A30016A	Nos	2
22	Front panel	MGC38342102	Nos	1
23	Air filter	MDJ3813220	Nos	2
24	Supply air grille	MDX38348001	Nos	1
25	Controller	ABQ34039401	Nos	1
26	Wire Grommet	MBF42399101	Nos	1
27	Control box indoor	ABQ33787101	Nos	1

7.3 Part List

OUTDOOR UNIT (Model:LX-0346QC/LX-0446QC)				
S.No.	Item	Part no.	Unit	Qty
1	Structure assy-ODU	AJT33326701	Nos	1
2	Mount motor	ABA33322602	Nos	2
3	Outdoor motor	EAU37400101	Nos	2
4	Profan	MDG38132401	Nos	2
5	Shroud	MHN38291302	Nos	2
6	Condenser Coil 3Tr/4Tr	ACG34540101/ACG33250201	Nos	2
7	Comp-ZR22K3PFJ/ZR28K3PFJ	MCB39956501/MCB38340801	Nos	2
8	Control box outdoor	ABQ33323002	Nos	1
9	Service valve-5/8 in	2A00392E	Nos	2
10	Service vale-3/8 in	2A00393A	Nos	2
11	Rear Grille	MDX38291502	Nos	1
12	Side panel	MGC38282802	Nos	2
13	Rear Panel	MGC38282502	Nos	1
14	Cover panel top	MCK38287202	Nos	1



P/No.: MFL39500401