



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT
ARIYALUR
ELECTRICAL MANUAL**



Issue No. 01	Rev. No: 01	Effective Date: 07.07.2017	ELEC/SOP/046
Issued By: M.R		Approved By: HOD - ELECTRICAL	
SOP for Split & Window AC Maintenance			

Scope : Describing Split & window AC maintenance procedure.

Responsibility : Electrical Engineer.

Accountability : Section Head

PPE:

1. Nose mask
2. Goggles
3. Tested Electrical Rubber Hand Gloves
4. Cotton Gloves
5. Safety Shoes
6. Safety Helmet
7. Full Body Harness.

Tools:

1. Wire Brush
2. Hand Blower
3. Waste Cloth
4. Suitable Spanners
5. Certified FRP Ladder.
6. Insulated Screw Driver

Hazards:

Risk Associated
Electrical Shock
Minor body injury

Mitigating Measures
Tested Electrical Rubber Hand Gloves
Safety shoes, gloves, helmet, goggles, FRP ladder.

Training needs:

1. Electrical shock recovery Training
2. Emergency preparedness
3. Work at height



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Procedure for Indoor Unit Maintenance:-

1. Switch OFF for the particular Split AC control MCB.
2. Remove the AC power supply Plug top from the socket.
3. Clean the AC Indoor with Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
4. Remove the front cover from the Indoor.
5. Remove the dust filter from the Indoor.
6. Clean the dust filter with Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
7. Check the all Power and control board cable connection tightness with proper tools.
8. Check the Indoor blower condition.
9. Check the Indoor condensation coil.
10. Clean the indoor condensation coil with water and Hand Blower & cleaning brush. while cleaning use PPEs like Nose mask, goggles and hand Gloves.
11. Close the AC indoor front cover properly.
12. Fix the dust filter properly.
13. Ensure closing of front door properly.

Procedure for Outdoor Unit Maintenance:-

1. Remove the Split AC outdoor top cover.
2. Clean the outdoor with Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
3. Check the compressor terminal and capacitor terminal.
4. If any abnormal found in terminal, terminal wire clip to be changed.
5. Check the compressor gas pressure and record.
6. If gas level low, R22 gas to be filled. While gas filling use PPEs like Nose mask, goggles and gloves. .
7. R22 gas cylinder tapping nut to be proper tight for avoiding the any gas leak.
8. After checking gas pressure, Dummy to be closed properly.



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9. Check the Outdoor fan condition.
10. Clean the outdoor fan leaf properly with brush and cloth.
11. Check heat exchanger gas leakage and clean with water with bush and cotton waste.
12. Close the outdoor cover properly.
13. Check the remote battery condition.
14. If battery low, Battery has to be replaced.
14. Ensure the tools quantity.
15. Insert the plug top in power socket.
16. Switch ON the control MCB.
17. Check total AC current and record.
18. Check Indoor and Outdoor noise level.

Procedure for Window AC Unit Maintenance:-

1. Switch OFF for the particular window AC control MCB.
2. Remove the AC power supply Plug top from the socket.
3. Clean the AC front door with Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
4. Remove the front cover from the window AC.
5. Remove the dust filter from the window AC.
6. Clean the dust filter with Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
7. Check the all Power and control board cable connection tightness with proper tools.
8. Remove the AC unit from the unit.
9. Check the AC blower condition.
10. Check the condensation coil.
11. Clean the condensation coil with water and Hand Blower & cleaning brush. While cleaning use PPEs like Nose mask, goggles and hand Gloves.
13. Check the compressor terminal and capacitor terminal.
14. If any abnormal found in terminal, terminal wire clip to be changed.
15. Check the compressor gas pressure and record.
16. If gas level low, R22 gas to be filled. While gas filling use PPEs like Nose mask, goggles and



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gloves. .

17. R22 gas cylinder tapping nut to be proper tight for avoiding the any gas leak.
18. After checking gas pressure, Dummy to be closed properly.
19. Insert the AC unit to body.
20. Close the door cover properly.
21. Fix the dust filter properly.
22. Check the remote battery condition.
23. If battery low, Battery has to be replaced.
24. Ensure the tools quantity.
25. Insert the plug top in power socket.
26. Switch ON the control MCB.
27. Check total AC current and record.

Emergency / Emergency Shut OFF:

1. If electrical shock injury or body injury is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761.

Records/Annexure:

1. Refer Line clearance certificates.
2. JSA as enclosed below.



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SOP for Split & Window AC Maintenance

JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: LT panel maintenance	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Electrician	Supervisor: Section Engineer	Department: Electrical	Section:	Approved by:
Reqd./recommended PPE: Nose mask, Goggles, Tested Electrical Rubber Hand Gloves, Cotton Gloves, Safety shoes, Safety helmet, certified ladder, certified safety belt.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Put on PPE, Take Permit				
Cleaning of Indoor and Outdoor.	Eye irritation,	Wear goggles	Damaged goggles / non standard goggles / Not wearing Goggle.	Periodic replacement / Proper training
	Respiration problem	Wear Nose mask	Damaged nose mask/ Not wearing Nose mask	Periodic replacement / Proper training
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
	Fall from height	Use proper FRP ladder	Gripper of the ladder may damage	Certified ladder to be use. Before use has to be inspect.
Check and fill R22 gas	Eye irritation,	Wear goggles	Damaged goggles/non standard goggles/ Not wearing Goggle.	Periodic replacement/ Proper training
	Respiration problem	Wear Nose mask	Damaged nose mask/ Not wearing Nose mask	Periodic replacement / Proper training
	Body injury	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic replacement
Box up the AC	Fall from height	Use proper FRP ladder	Gripper of the ladder may damage	Certified ladder to be use. Before use has to be inspect.
		Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job