

**DACUM Panel**

**Mr. Muhammad Aamir**  
Punjab Industrial Estate

**Mr. Ijaz Butt**  
cHamza Cool Point

**Mr. Muhammad Aslam**  
Saigol group of companies

**Mr. Muhammad Gulzar**  
Saigol group of companies

**Mr. Muhammad Saime  
Dilawar**  
Kentax (Pvt), Limited

**Mr. Mahmood Akbar**  
Kentax (Pvt), Limited

**Mr. Muhammad Akbar  
Hussain**  
Akbar Electrical

**Mr. Asghar Ali**  
Al-Madina Electrical

**DACUM Facilitators**

Mr. Ghazanfar Abbas  
PVTC

**DACUM Coordinator**

Mr. Faisal Mahmood, PVTC

**DACUM Observers**

Mr. Imran Malik  
Resource Access

Mr. Khurram Sohail Asghar,  
PVTC

**DACUM Recorder**

Mr. Farrukh Ali, PVTC

**DACUM Job Analysis**  
**of**  
**“Electrical Installer &  
Repairer”**  
**(Level – II)**

**November 20-21, 2013**

**Avari, Lahore**



## DUTIES and TASKS

### A. Maintain Safety

<b>A1</b> Apply company safety SOPs/policies	<b>A2</b> Maintain personal safety	<b>A3</b> Maintain tools/ instruments safety	<b>A4</b> Maintain material safety	<b>A5</b> Maintain product / Appliances safety	<b>A6</b> Maintain site safety
<b>A7</b> Perform earthing	<b>A8</b> Maintain fire safety				

### B. Interpret Drawing

<b>D1</b> Interpret electrical / basic electronics symbols	<b>D2</b> Interpret codes & colors	<b>D3</b> Interpret references	<b>D4</b> Interpret circuit diagrams	<b>D5</b> Interpret drawing standards	<b>D6</b> Detect faults
<b>D7</b> Propose modification					

### C. Maintain Tools & Equipment

<b>B1</b> Maintain battery / auxiliary instruments	<b>B2</b> Check tools insulation	<b>B3</b> Check insulation test report	<b>B4</b> Check calibration test report	<b>B5</b> Maintain tools stacking	<b>B6</b> Maintain tool box / bag
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### D. Perform Installation

<b>E1</b> Study installation manual	<b>E2</b> Inspect new product / appliance	<b>E3</b> Check electrical parameters	<b>E4</b> Prepare material requisition	<b>E5</b> Install new product / appliance	<b>E6</b> Perform testing
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### E. Install Wiring

<b>E1</b> Review drawing	<b>E2</b> Perform cable laying as per manual	<b>E3</b> Perform wiring test	<b>E4</b> Install electrical fixtures	<b>E5</b> Install electrical appliances	<b>E6</b> Perform electrical termination of cables
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### F. Perform Distribution of Electrical Supply

<b>F1</b> Check electrical load schedule	<b>F2</b> Set distribution priority	<b>F3</b> Monitor electrical load	<b>F4</b> Perform log out/ tag out	
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### G. Perform Preventive Maintenance

<b>H1</b> Perform routine checks	<b>H2</b> Review preventive maintenance schedule	<b>H3</b> Perform cleaning and calibration of electrical equipment and instruments	<b>H4</b> Perform load balance	<b>H5</b> Perform safety test	<b>H6</b> Perform earthing test
<b>H7</b> Replace faulty / damaged equipment					

### H. Perform Corrective Maintenance

<b>H1</b> Review work order/ job card / complaint	<b>H2</b> Diagnose fault	<b>H3</b> Perform troubleshooting	<b>H4</b> Demand materials	<b>H5</b> Dismantle faulty parts	<b>H6</b> Repair faulty parts / damaged components
<b>H7</b> Replace faulty parts / damaged components	<b>H8</b> Perform modifications	<b>H9</b> Perform safety checks	<b>H10</b> Perform Operational checks		

### I. Perform Quality Checks

<b>J1</b> Check quality of materials	<b>J2</b> Implement quality standards	<b>J3</b> Check quality of workmanship	<b>J4</b> Reduce waste of material	<b>J5</b> Clean workplace / equipment after job completion	<b>J6</b> Perform quality inspection
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### J. Maintain Documentation

<b>J1</b> Maintain Drawing & manual record	<b>J2</b> Maintain material demand / receipt records	<b>J3</b> Maintain installation & commissioning reports	<b>J4</b> Maintain dismantle / damaged record	<b>J5</b> Maintain wiring test reports	<b>J6</b> Maintain load schedule record
<b>J7</b> Maintain electrical distribution log record	<b>J8</b> Maintain tools inventory record	<b>J9</b> Maintain test calibration reports	<b>J10</b> Maintain routine checklists	<b>J11</b> Maintain preventive schedule record	<b>J12</b> Maintain preventive reports
<b>J13</b> Maintain work order record	<b>J14</b> Maintain fault report record	<b>J15</b> Maintain work permit record	<b>J16</b> Maintain test report record	<b>J17</b> Maintain inspection report record	

### K. Develop Professionalism

<b>K1.</b> Participate in training	<b>K2.</b> Consult experts/seniors	<b>K3.</b> Read books / magazines	<b>K4.</b> Watch videos / documentaries	<b>K5.</b> Perform internet browsing	<b>K6.</b> Participate in seminars / workshops
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### L. Perform Communication

<b>L1.</b> Communicate with supervisors	<b>L2.</b> Communicate with helpers	<b>L3.</b> Communicate with employees / colleagues	<b>L4.</b> Communicate with clients
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## Additional Information for Electrical Installer & Repairer

<p><b>Worker traits</b></p> <ul style="list-style-type: none"> <li>• Committed</li> <li>• Communication skills</li> <li>• Confident</li> <li>• Courteous</li> <li>• Decisive</li> <li>• Diligent</li> <li>• Efficient</li> <li>• Hardworking</li> <li>• Honest</li> <li>• Intelligent</li> <li>• Patient</li> <li>• Physically fit</li> <li>• Punctual</li> <li>• Reliable</li> <li>• Responsible</li> <li>• Tactful</li> </ul>	<p><b>Entry Requirements</b></p> <p>Middle preferably matric</p>	<p><b>Duration of Training Required</b></p> <p>1 year</p>	<p><b>Career Paths</b></p> <ul style="list-style-type: none"> <li>• Appliances installer / repairer</li> <li>• Senior installer / repairer</li> <li>• Supervisor</li> </ul> <hr/> <p><b>Future Trends</b></p> <ul style="list-style-type: none"> <li>• Building material supervisor (BMS)</li> <li>• Electro mechanical technician</li> <li>• MEP Technician</li> </ul>
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## Related Knowledge

- Basic electricity
- Cable charts / specs
- Circuit breakers
- Commissioning
- Communication skills
- Complaint schedule
- Customer care
- Earthing
- Electrical parameters
- Electrical test
- Fire fighting
- First Aid
- Functions & operations of electrical appliances
- Identification of tools
- Inspection policy
- Installation standards
- Job cards
- Load balance
- Load flow study
- Material estimate
- Material requisition
- Measuring instruments (functioning)
- Personal hygiene
- Phase sequencing
- Quality assurance
- Record keeping
- Relays
- Safety
- Safety SOPs
- Selection of tools
- Types of electrical boards
- Types of motors
- Understand electrical drawings
- Use of tools
- Work orders
- Types of wiring
- Types of jointing

## Tools/Equipment

- Adjustable wrench
- AVO meter
- Bench vice
- Blower
- Cable knife
- Chisel set
- Clamp on meter
- Combination nose plier
- Component chart
- Crimping tool
- Cutter plier
- Drill machine
- Earth tester
- Electrical welding plant
- File set
- Gloves
- Goggles
- Greasing gun
- Grinder
- Grip plier
- Hacksaw
- Hammer
- Hammer drill
- Hand drill machine
- Helmet
- IR gun
- Jiri set
- L scale
- Level meter
- L-key set
- Measuring tape
- Megger
- Multimeter
- Overall
- Plier set
- Puller set
- Richet spanner set
- Safety belt
- Screw driver set
- Sequence meter
- Shoes
- Shoot gun
- Soldering gun
- Soldering iron
- Soldering sucker
- Star kit set
- Tagging machine
- Tap set
- Tarque wrench
- Tester
- Vernier calipers