National Occupational Skill Standard
(NOSS)

Occupational Title : **Electrical Appliances Repairer**

Level : **1**

Sector : **Electrical**

Sub - Sector : **Electrical Appliances**

NOSS ID/NSCO ID :

ISCO NO :

Council for Technical Education and Vocational Training

NATIONAL SKILL TESTING BOARD

Madhyapur Thimi-17, Sanothimi, Bhaktapur, Nepal

Developed: 31-05-2025 (17-02-2082)

2045

DACUM Panel:

No	Name	Designation	Organization
1.	Mr. Raju Nepali	Member	RRB, Kathmandu
2.	Mr. Suresh Maharjan	Member	Housing Service Company, Kathmandu
3.	Mr. Gajendra Rajbhandari	Member	Hotel Himalaya, Lalitpur
4.	Mr. Dipendra Shrestha	Member	Delta Workshop, Kathmandu
5.	Mr. Suresh Shrestha	Member	Suresh Workshop, Kathmandu
6.	Mr. Dilendra Tamrakar	Member	Delta Workshop, Kathmandu
7.	Mr. Amarendra Nath Anil	Member	Alka Hospital, Lalitpur
8.	Mr. Surendra Rijal	Member	Gyanu Traders, Kathmandu
9.	Ms. Indu Shahu,	Member	Private Electrical Shop, Bhaktapur
10.	Mr. Shyam Shahu	Member	Shyam Electrical Service, Bhaktapur

DACUM supervisor
MR. Ram Hari Devkota, Deputy Director, NSTB
DACUM Facilitator/Recorder
Mr. Bhumaheshwor Ranjit, Sanitary Instructor, BSET
Mr. Tej Prakash Sapkota, Mechanical Instructor, BSET

DACUM Verification Panel

No	Name	Designation	Organization
1.	Mr. Sujan Shrestha	Member	Sudish Electro Workshop, Kathmandu
2.	Mr. Suresh Shrestha	Member	Bal kumari Electrical Workshop, Lalitpur
3.	Mr. Shree Krishna Shrestha	Member	Hotel Raddison, Kathmandu
4.	Mr. Gajendra Rajbhandari	Member	Hotel Himalaya, Lalitpur
5.	Mr. Dilendra Tamrakar	Member	Delta Workshop, Kathmandu
6.	Mr. Suresh Shrestha	Member	Suresh Workshop, Kathmandu
7.	Mr. Suresh Shrestha	Member	National arc Lines, Kathmandu
8.	Mr. Shiba Ranjit	Member	BSET, Kathmandu
9.	Mr. Raghubar Lal Joshi	Member	BSET, Kathmandu
10.	Mr. Hari Saran Gautam	Member	GPI, Kathmandu

DACUM supervisor
MR. Ram Hari Devkota, Deputy Director, NSTB
DACUM Facilitator/Recorder
Mr. Ishwar Chandra Ghimire, Skill Testing Officer, NSTB
Mr. Baikuntha Shrestha, Sanitary Department Head

Customized DACUM Workshop on 11 December, 2009

The Occupational Profile (OP) Developed by:

No	Name	Designation	Organization
1.	Er. Jayaiswer Man Pradhan	Coordinator	Electrical Technical Sub Committee National Skill Testing Board, Sanothimi, Bhaktapur
2.	Mr. Chandra Bhakta Nakarmi	Director	National Skill Testing Board Sanothimi, Bhaktapur
3.	Mr. Chhabi Bahadur Gurung	Member	Principal, BSET Balaju, Kathmandu
4.	Mr. Raghbendra Tiwari	Member	Chilime Hydro Power Company Kathmandu
5.	Mr. Ram Bahadur Karki	Member	JEMC Bhaktapur
6.	Mr. Raghubar Lal Joshi	Member	BSET Balaju, Kathmandu
7.	Mr. Ram Hari Devkota	Member	Dy-Director, NSTB Sanothimi, Bhaktapur
8.	Er. Gunananda Jha	Member	Sr. Skill Testing Officer, NSTB Sanothimi, Bhaktapur
9.	Mr. Ishwar Chandra Ghimire	Member	Skill Testing Officer, NSTB Sanothimi, Bhaktapur
10.	Mr. Govinda Poudel	Member- Secretary	Skill Testing Officer, NSTB Sanothimi, Bhaktapur

Recommended by Electrical Technical Sub Committee: 17 December 2009

The National Occupational Skill Standard Developed by:

No	Name	Designation	Organization
1.	Er. Jayaiswer Man Pradhan	Coordinator	Electrical Technical Sub Committee National Skill Testing Board, Sanothimi, Bhaktapur
2.	Mr. Bhuvaneshor Dhungana	Member	National Skill Testing Board Sanothimi, Bhaktapur
3.	Mr. Surendra Shrestha	Member	Subi Electro Machinery Gaththaghar, Bhaktapur
4.	Ms. Indu Shahu	Member	Indu Electro Service Jadibuti, Kathmandu
5.	Mr. Raghubar Lal Joshi	Member	Balaju School of Engineering and Technology (BSET) Balaju, Kathmandu
6.	Mr. Anil Shrestha	Member	D. Aires Electricals & Refrigeration Pulchowk, Lalitpur
7.	Mr. Tulsi Bahadur Nemkul	Member	SKILL Nepal Satdobato, Lalitpur
8.	Mr. Shiva Nanda Mishra	Member	National Skill Testing Board Sanothimi, Bhaktapur
9.	Mr. Dipak Sainju	Member Secretary	Electrical Technical Sub Committee National Skill Testing Board, Sanothimi, Bhaktapur
10.	Mr. Suresh Maharjan	Facilitator	Sr. Skill Testing Officer National Skill Testing Board, Sanothimi, Bhaktapur
11.	Mr. Surya Prasad Adhikari	Facilitator	Skill Testing Officer National Skill Testing Board, Sanothimi, Bhaktapur

Recommended by Electrical Technical Sub Committee: 31 May 2025 (17 Jestha 2082)

1	**Occupational Title: Electrical Appliances Repairer** **Level: 1**
2	**Job Description:** Electrical Appliances Repairer L1, diagnoses and repairs electrical components of motorized home appliances, and diagnoses and repairs electrical components of heating home appliances.
3	**UNITS OF COMPETENCY:** 1. Diagnose and repair electrical components of motorized home appliances 2. Diagnose and repair electrical components of heating home appliances 3. Perform communication 4. Develop professionalism ***Note: Units 3 and 4 are not for testing purpose.***
4	**Qualifying Notes/Prerequisites:** • Physical Requirements: Sound health • Entry Requirements: As per NSTB rules **Additional Information:** • Assessment Types: Performance test only • Assessment Duration: 4:00 to 5:00 hours (Full competency only) • Recommended Group Size: 8 to 10 candidates

5	**Unit No: 1** **Unit Title: Diagnose and repair electrical components of motorized home appliances**	**Unit code:**
	Elements of competency	**Performance standards**
	1.1 Prepare tools, equipment and materials	1.1.1 ***Personal Protective Equipment (PPE)*** used in accordance with task requirements. 1.1.2 Tools and equipment collected and checked for serviceability. 1.1.3 Faulty tools and equipment tagged and reported to supervisor. 1.1.4 Materials collected and arranged in workplace as per task requirements.
	1.2 Perform initial inspection and testing	1.2.1 Customer complaints and service history interpreted to identify possible faults. 1.2.2 External conditions of ***motorized electrical appliances*** visually inspected for ***physical damage and failure***. 1.2.3 Continuity measured and condition of circuit determined. 1.2.4 Functional testing carried out to identify ***signs of malfunctions***. 1.2.5 Initial findings recorded and reported to concerned authority as per workplace procedure.
	1.3 Dismantle motorized electrical appliances	1.3.1 Warranty seal checked for validity period and concerned authority informed regarding warranty claims. 1.3.2 Appliances marked or photographed for reference during assembly and evidence of damage. 1.3.3 External cover/housing and internal components removed without damaging components as per manufacturer's instructions. 1.3.4 Removed components tagged and organized for reassembly.

	1.4 Inspect and repair components	1.4.1 ***Suspected components*** inspected based on initial inspection and testing results. 1.4.2 Continuity measured and condition of circuit determined. 1.4.3 Faulty components and wiring identified based on inspection and testing. 1.4.4 Faulty wiring repaired as per wiring diagram. 1.4.5 Faulty components replaced with new one with same specification. 1.4.6 Components requiring lubrication lubricated as per manufacturer instructions. 1.4.7 Continuity of replaced component tested and fitted into its original position. 1.4.8 Repaired appliances verified with functional testing and checking its performance.
	1.5 Assemble motorized electrical appliances	1.5.1 All removed internal components fitted in their original position as per manufacturer instruction. 1.5.2 All wiring connections and connectors reconnected as per wiring diagram. 1.5.3 External cover/housing installed and tightened in correct sequence as per marking and manufacturer's instruction. 1.5.4 Repaired appliances verified with functional testing and checking its performance. 1.5.5 Exterior surface wiped and repair label placed as per workplace procedure.
	1.6 Document repair work	1.6.1 Fault identified and repair actions documented along with list of replaced components. 1.6.2 Repair document stored or submitted as per workplace procedure. 1.6.3 Completed work reported to supervisor and briefed the repair process.
	1.7 Clean workplace	1.7.1 Unused materials collected and stored in designated area.

		1.7.2 Tools and equipment cleaned, lubricated, checked for damage and stored in designated area. 1.7.3 Workplace cleaned neatly and waste disposed as per ***3R's principle*** at designated area.
6	**Task Performance Requirements (Tools, Equipment and Materials):** • Motorized electrical home appliances, multi-meter, screwdriver set, hammer, spanner set, line tester, wire striper, wire cutter, nose plier, combination plier, continuity tester, side cutter, adjustable wrench, Allen key, hack saw with blade, knife, marker, center punch, soldering (iron/wire/flux), file, cleaning brush, oil can, lubricants, vacuum, blower, crimping tools, cable shoe, anti- rust, vice plier, bench vice, coupling, bench, tool box, label sticker, magnifier, pen, pencil, note book, switches, carbon brush with holder, capacitor, overload protector, safety switch, mixture blade, fan blade, power cords, thermal fuse, indicator, testing board, storage trays/zip-lock bags, blow lamp/torch, PVC tape, electrical wires, replacement components, cleaning cloth, broom, dust pan, dust bin, Personal protective equipment's(PPE)	
7	**Safety and Hygiene (Occupational Health and Safety):** • Use personal protective equipment. • Handle tools, equipment and materials safely. • Prevent from electrical hazards.	

8	Required Knowledge		
	Technical Knowledge	**Applied Calculation**	**Graphical Information**

	• Tools, equipment and materials
	  ○ Types
	  ○ Uses
	  ○ Safe handling
	  ○ Storage
	• Electrical appliances
	  ○ Introduction
	  ○ Motorized and non-motorized electrical appliances
	  ○ Application of electrical appliances
	• Electrical parameters
	  ○ Current
	  ○ Voltage
	  ○ Resistance
	  ○ Frequency
	  ○ Power
	• Relationship between electrical parameters
	• AC and DC source and circuit
	• Basic electrical circuit: Open, close, short, series and parallel
	• Electrical symbols
			• Read and interpret circuit diagram
			• Read and interpret nameplate
			• Read and interpret manufacturer' instruction

	• Electrical components
	  ○ Resistor
	  ○ Inductor
	  ○ Capacitor
	  ○ Thermostat
	  ○ Fuse
	• Conductor and insulator
	• Controlling and protective devices
	• Electrical wire and cable
	• Motorized electrical appliances
	  ○ Introduction
	  ○ Key components and their functions
	• Troubleshooting electrical components
	  ○ Customer handling technique
	  ○ Visual inspection and testing (Current, voltage, continuity and functional test)
	  ○ Common faults and possible cause
	  ○ Dismantling and assembling process and techniques
	  ○ Marking and tagging process
	  ○ Soldering and de-soldering techniques
	  ○ Technical documentation and reporting		

	• Cleaning and waste management • Record keeping and documentation • Importance of first aid • Occupational health and safety rules and regulations		

9	**Assessment of Competency**					
	Unit: 1 **Unit Title: Diagnose and repair electrical component of motorized home appliances**					
	Candidate Details			**Assessors Detail**		
	Candidate's Name: Registration Number: Symbol No: Test Centre: Test Date:			Assessors' Name 1. 2. 3.		ID/License No:

Element of competency	**Performance Standards**	**Standard Met**	**Standard Not Met**	**Evidence Type**	**Comments**
1.1 Prepare tools, equipment and materials	1.1.1 ***Personal Protective Equipment (PPE)*** used in accordance with task requirements. 1.1.2 Tools and equipment collected and checked for serviceability. 1.1.3 Faulty tools and equipment tagged and reported to supervisor. 1.1.4 Materials collected and arranged in workplace as per task requirements.				
1.2 Perform initial inspection and testing	1.2.1 Customer complaints and service history interpreted to identify possible faults.				

	1.2.2 External conditions of ***motorized electrical appliances*** visually inspected for ***physical damage and failure***. 1.2.3 Continuity measured and condition of circuit determined. 1.2.4 Functional testing carried out to identify ***signs of malfunctions***. 1.2.5 Initial findings recorded and reported to concerned authority as per workplace procedure.				
1.3 Dismantle motorized electrical appliances	1.3.1 Warranty seal checked for validity period and concerned authority informed regarding warranty claims. 1.3.2 Appliances marked or photographed for reference during assembly and evidence of damage. 1.3.3 External cover/housing and internal components removed without damaging components as per manufacturer's instructions. 1.3.4 Removed components tagged and organized for reassembly.				
1.4 Inspect and repair components	1.4.1 ***Suspected components*** inspected based on initial inspection and testing results. 1.4.2 Continuity measured and condition of circuit determined. 1.4.3 Faulty components and wiring identified based on inspection and testing.				

	1.4.4 Faulty wiring repaired as per wiring diagram. 1.4.5 Faulty components replaced with new one with same specification. 1.4.6 Components requiring lubrication lubricated as per manufacturer instructions. 1.4.7 Continuity of replaced component tested and fitted into its original position. 1.4.8 Repaired appliances verified with functional testing and checking its performance.				
1.5 Assemble motorized electrical appliances	1.5.1 All removed internal components fitted in their original position as per manufacturer instruction. 1.5.2 All wiring connections and connectors reconnected as per wiring diagram. 1.5.3 External cover/housing installed and tightened in correct sequence as per marking and manufacturer's instruction. 1.5.4 Repaired appliances verified with functional testing and checking its performance. 1.5.5 Exterior surface wiped and repair label placed as per workplace procedure.				
1.6 Document repair work	1.6.1 Fault identified and repair actions documented along with list of replaced components.				

	1.6.2 Repair document stored or submitted as per workplace procedure. 1.6.3 Completed work reported to supervisor and briefed the repair process.				
1.7 Clean workplace	1.7.1 Unused materials collected and stored in designated area. 1.7.2 Tools and equipment cleaned, lubricated, checked for damage and stored in designated area. 1.7.3 Workplace cleaned neatly and waste disposed as per ***3R's principle*** at designated area.				

WT- Written Test **OQ**- Oral Question **PT-** Practical Test **DO** – Direct Observation **SR**- Supervisor's report **SN**–Simulation
RP- Role Play **PG –**Photographs **VD**- Video **CT** – Certificates **TS** – Testimonials (Reward) **PP** – Product Produced
CS – Case Study

Range Statement

Variable	Range
Personal Protective Equipment	*May include but not limited to:* • Helmet • Hair net • Apron/Safety Jacket • Goggles • Gloves • Safety shoes • Mask • Anti-static wrist strap
Motorized electrical appliances	*May include but not limited to:* • Mixture grinder • Fan • Vacuum cleaner • Blower • Fan heater
Physical damage and failure	*May include but not limited to:* • Crack • Broken • Burn marks • Melted • Missing parts • Loose parts/components • Cut

	• Wear • Water damage • Corrosion • Leakage
Signs of malfunctions	*May include but not limited to:* • No power • Noise • Vibration • Overheating • Leakage • Smell (burnt smell) • Choking • Humming
Suspected components	*May include but not limited to:* • Switch • Non polar capacitor • Carbon brush with holder • Over load switch • Indicator • Connector/ terminal • Mixture coupling
3R's principle	*May include but not limited to:* • Reduce • Reuse • Recycle

5	**Unit No: 2** **Unit Title: Diagnose and repair electrical components of heating home appliances**	**Unit code:**
	Elements of competency	**Performance standards**
	2.1 Prepare tools, equipment and materials	2.1.1 ***Personal Protective Equipment (PPE)*** used in accordance with task requirements. 2.1.2 Tools and equipment collected and checked for serviceability. 2.1.3 Faulty tools and equipment tagged and reported to supervisor. 2.1.4 Materials collected and arranged in workplace as per task requirements.
	2.2 Perform initial inspection and testing	2.2.1 Customer complaints and service history interpreted to identify possible faults. 2.2.2 External conditions of ***heating appliances*** visually inspected for ***physical damage and failure***. 2.2.3 Continuity measured and condition of circuit determined. 2.2.4 Functional testing carried out to identify ***signs of malfunctions***. 2.2.5 Initial findings recorded and reported to concerned authority as per workplace procedure.
	2.3 Dismantle heating appliances	2.3.1 Warranty seal checked for validity period and concerned authority informed regarding warranty claims. 2.3.2 Appliances marked or photographed for reference during assembly and evidence of damage. 2.3.3 External cover/housing and internal components removed without damaging components as per manufacturer's instructions. 2.3.4 Removed components tagged and organized for reassembly.

	2.4 Inspect and repair components	2.4.1 ***Suspected components*** inspected based on initial inspection and testing results. 2.4.2 Continuity measured and condition of circuit determined. 2.4.3 Faulty components and wiring identified based on inspection and testing. 2.4.4 Faulty wiring repaired as per wiring diagram. 2.4.5 Faulty components replaced with new one with same specification. 2.4.6 Components requiring lubrication lubricated as per manufacturer instructions. 2.4.7 Continuity of replaced component tested and fitted into its original position. 2.4.8 Repaired appliances verified with functional testing and checking its performance.
	2.5 Assemble heating appliances	2.5.1 All removed internal components fitted in their original position as per manufacturer instruction. 2.5.2 All wiring connections and connectors reconnected as per wiring diagram. 2.5.3 External cover/housing installed and tightened in correct sequence as per marking and manufacturer's instruction. 2.5.4 Repaired appliances verified with functional testing and checking its performance. 2.5.5 Exterior surface wiped and repair label placed as per workplace procedure.
	2.6 Document repair work	2.6.1 Fault identified and repair actions documented along with list of replaced components. 2.6.2 Repair document stored or submitted as per workplace procedure. 2.6.3 Completed work reported to supervisor and briefed the repair process.
	2.7 Clean workplace	2.7.1 Unused materials collected and stored in designated area.

		2.7.2 Tools and equipment cleaned, lubricated, checked for damage and stored in designated area. 2.7.3 Workplace cleaned neatly and waste disposed as per ***3R's principle*** at designated area.
6	**Task Performance Requirements (Tools, Equipment and Materials):** • Heating electrical home appliances, multi-meter, screwdriver set, hammer, spanner set, line tester, wire striper, wire cutter, nose plier, combination plier, continuity tester, side cutter, adjustable wrench, Allen key, crimping plier, cable shoe, hack saw with blade, knife, marker, center punch, soldering (iron/wire/flux), file, cleaning brush, oil can, lubricants, vacuum, blower, vice plier, bench vice, bench, tool box, label sticker, magnifier, pen, pencil, note book, switches, heating element, anti-rust, thermostat, thermal relay, overload protector, safety switch, power cords, thermal fuse, indicator, testing board, storage trays/zip-lock bags, blow lamp/torch, PVC tape, electrical wires, replacement components, cleaning cloth, broom, dust pan, dust bin, Personal protective equipment's(PPE)	
7	**Safety and Hygiene (Occupational Health and Safety):** • Use personal protective equipment. • Handle tools, equipment and materials safely. • Prevent from electrical hazards.	

8	Required Knowledge		
	Technical Knowledge	**Applied Calculation**	**Graphical Information**

	• Tools, equipment and materials
	  ○ Types
	  ○ Uses
	  ○ Safe handling
	  ○ Storage
	• Electrical heating appliances
	  ○ Introduction
	  ○ Application of heating appliances
	  ○ Key components and their functions
	• Electrical parameters
	  ○ Current
	  ○ Voltage
	  ○ Resistance
	  ○ Frequency
	  ○ Power
	• Relationship between electrical parameters
	• AC and DC source and circuit
	• Basic electrical circuit: Open, close, short, series and parallel
	• Electrical symbols
			• Read and interpret circuit diagram
			• Read and interpret nameplate
			• Read and interpret manufacturer' instruction

	• Electrical components
	  ○ Resistor
	  ○ Thermostat
	  ○ Thermal fuse
	  ○ Magnet
	  ○ Warm plate
	  ○ Heating element
	• Conductor and insulator
	• Controlling and protective devices
	• Electrical wire and cable
	• Troubleshooting electrical components
	  ○ Customer handling technique
	  ○ Visual inspection and testing (Current, voltage, continuity and functional test)
	  ○ Common faults and possible cause
	  ○ Dismantling and assembling process and techniques
	  ○ Marking and tagging process
	  ○ Soldering and de-soldering techniques
	  ○ Technical documentation and reporting
	• Cleaning and waste management
	• Record keeping and documentation		

	• Importance of first aid • Occupational health and safety rules and regulations		

9	Assessment of Competency					
	Unit: 2 **Unit Title: Diagnose and repair electrical components of heating home appliances**					
	Candidate Details		**Assessors Detail**			
	Candidate's Name: Registration Number: Symbol No: Test Centre: Test Date:		Assessors' Name 1. 2. 3.		ID/License No:	

Element of competency	Performance Standards	Standard Met	Standard Not Met	Evidence Type	Comments
2.1 Prepare tools, equipment and materials	2.1.1 ***Personal Protective Equipment (PPE)*** used in accordance with task requirements. 2.1.2 Tools and equipment collected and checked for serviceability. 2.1.3 Faulty tools and equipment tagged and reported to supervisor. 2.1.4 Materials collected and arranged in workplace as per task requirements.				
2.2 Perform initial inspection and testing	2.2.1 Customer complaints and service history interpreted to identify possible faults.				

	2.2.2 External conditions of ***heating appliances*** visually inspected for ***physical damage and failure***. 2.2.3 Continuity measured and condition of circuit determined. 2.2.4 Functional testing carried out to identify ***signs of malfunctions***. 2.2.5 Initial findings recorded and reported to concerned authority as per workplace procedure.				
2.3 Dismantle heating appliances	2.3.1 Warranty seal checked for validity period and concerned authority informed regarding warranty claims. 2.3.2 Appliances marked or photographed for reference during assembly and evidence of damage. 2.3.3 External cover/housing and internal components removed without damaging components as per manufacturer's instructions. 2.3.4 Removed components tagged and organized for reassembly.				
2.4 Inspect and repair components	2.4.1 ***Suspected components*** inspected based on initial inspection and testing results. 2.4.2 Continuity measured and condition of circuit determined. 2.4.3 Faulty components and wiring identified based on inspection and testing.				

	2.4.4 Faulty wiring repaired as per wiring diagram. 2.4.5 Faulty components replaced with new one with same specification. 2.4.6 Components requiring lubrication lubricated as per manufacturer instructions. 2.4.7 Continuity of replaced component tested and fitted into its original position. 2.4.8 Repaired appliances verified with functional testing and checking its performance.				
2.5 Assemble heating appliances	2.5.1 All removed internal components fitted in their original position as per manufacturer instruction. 2.5.2 All wiring connections and connectors reconnected as per wiring diagram. 2.5.3 External cover/housing installed and tightened in correct sequence as per marking and manufacturer's instruction. 2.5.4 Repaired appliances verified with functional testing and checking its performance. 2.5.5 Exterior surface wiped and repair label placed as per workplace procedure.				
2.6 Document repair work	2.6.1 Fault identified and repair actions documented along with list of replaced components.				

	2.6.2 Repair document stored or submitted as per workplace procedure. 2.6.3 Completed work reported to supervisor and briefed the repair process.				
2.7 Clean workplace	2.7.1 Unused materials collected and stored in designated area. 2.7.2 Tools and equipment cleaned, lubricated, checked for damage and stored in designated area. 2.7.3 Workplace cleaned neatly and waste disposed as per ***3R's principle*** at designated area.				

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RP- Role Play **PG –**Photographs **VD**- Video **CT** – Certificates **TS** – Testimonials (Reward) **PP** – Product Produced
CS – Case Study

Range Statement

Variable	Range
Personal Protective Equipment	*May include but not limited to:* • Helmet • Hair net • Apron/Safety Jacket • Goggles • Gloves • Safety shoes • Mask • Anti-static wrist strap
Heating appliances	*May include but not limited to:* • Rice cooker • Hot Plate • Iron • Oven • Electrical Kettle • Roti maker • Toaster • Heater
Physical damage and failure	*May include but not limited to:* • Crack • Broken • Burn marks • Melted

	• Missing parts • Loose parts/components • Cut • Wear • Water damage • Corrosion • Leakage
Signs of malfunctions	*May include but not limited to:* • No power • Noise • Overheating • Leakage • Smell (burnt smell)
Suspected components	*May include but not limited to:* • Switch • Magnet • Indicator • Connector/ terminal • Thermostat • Heating element • Warm plate • Thermal fuse
3R's principle	*May include but not limited to:* • Reduce • Reuse • Recycle