

RISK ASSESSMENT: ELECTRICAL & ELECTRONIC REPAIRS

Venue: Shalford Upper Village Hall

Assessment Date: 12th September 2026

Assessor: [Eric Stammers

Review Date: September 2027 (or following any safety incident)

1. PURPOSE & SCOPE

This risk assessment covers all activities relating to the inspection, testing, disassembly, fault-finding, fixing, and reassembly of mains-powered (230V) and battery-powered electrical and electronic appliances. It applies specifically to volunteer repairers and visiting members of the public within the designated electrical station at the Village Hall.

2. RISK RATING SYSTEM

Likelihood: 1 (Rare), 2 (Unlikely), 3 (Possible), 4 (Likely), 5 (Almost Certain)

Severity: 1 (Negligible/Minor Cut), 2 (Minor Injury/First Aid), 3 (Moderate/Medical Treatment), 4 (Major Injury/Hospitalisation), 5 (Fatality)

Risk Level: Likelihood × Severity

1 to 4: Low Risk (Acceptable, monitor regularly)

5 to 11: Medium Risk (Controls must be strictly enforced)

12 to 25: High Risk (Stop activity until stronger controls are in place)

3. HAZARD REGISTER & CONTROL MEASURES

HAZARD 1: Fatal Electrical Shock or Severe Burns (Live Components)

People at Risk: Volunteer Repairers, Visitors, Bystanders.

Specific Risks: Touching exposed live wires, internal components holding residual charge, or a faulty appliance shell becoming live during testing.

Initial Risk Rating: High (Likelihood 3 × Severity 5 = **15**)

Mandatory Control Measures:

The 4-Step PAT Mandate: Every item must undergo a formal Visual Inspection and a Pre-Repair PAT Check *before* any tools are used or casings opened. Once fixed and closed, the item must pass a Post-Repair Visual Inspection and a Final PAT Check before being handed back to the visitor.

RCD Protection: All testing and repair benches must power their items through an active Residual Current Device (RCD) circuit breaker or an isolating transformer. Never plug an open item directly into the village hall wall sockets.

Capacitor Discharge: Items with large capacitors (e.g., audio amplifiers, microwave ovens if permitted) must be safely discharged using a resistor tool before internal handling.

Competency Restriction: Only volunteers with proven electrical competence (e.g., qualified electricians or highly experienced electronics hobbyists approved by the lead fixer) are permitted to open mains-powered devices.
Residual Risk Rating: Low (Likelihood 1 × Severity 5 = 5)

HAZARD 2: Inadequate Workspaces & Tripping Hazards

People at Risk: Volunteers, Visitors, Children walking through the hall.

Specific Risks: Tripping over extension leads, pulling heavy tools off benches, or knocking hot items over.

Initial Risk Rating: Medium (Likelihood 4 × Severity 2 = 8)

Mandatory Control Measures:

Cable Management: All extension cables running across the village hall floor must be covered with heavy-duty rubber floor strips or brightly coloured hazard tape. Extension cables at workstation should be plugged into the socket behind the station and should not be in public spaces.

L or U-Shaped Table Layout: Benches must be arranged in a L or U-shape or have a physical barrier separating the visitor from the repairer's tools. Visitors must sit or stand at a safe distance.

No Blocking Exits: The electrical station must be positioned away from designated village hall fire exits. Benches must be kept clear of clutter.

Residual Risk Rating: Low (Likelihood 2 × Severity 1 = 2)

HAZARD 3: Thermal Burns & Fumes from Soldering or Heat Guns

People at Risk: Volunteer Repairers, Nearby Visitors.

Specific Risks: Skin burns from soldering iron tips (up to 400°C), eye injuries from spitting solder, or inhaling toxic lead/rosin fumes.

Initial Risk Rating: Medium (Likelihood 3 × Severity 3 = 9)

Mandatory Control Measures:

Safe Tool Storage: Soldering irons must always be stored in a dedicated, weighted safety stand when not actively melting solder. They must never be laid flat on the table surface.

Ventilation: The electrical bench must be located near an open window or an external door in the village hall to ensure clean airflow. Desktop solder fume extractors should be used if available.

Personal Protective Equipment (PPE): Safety glasses must be worn by the volunteer (and offered to the visitor) during any soldering or wire-clipping actions.

Residual Risk Rating: Low (Likelihood 2 × Severity 2 = 4)

HAZARD 4: Lithium-ion Battery Thermal Runaway (Fire Risk)

People at Risk: All Village Hall Occupants.

Specific Risks: Puncturing, crushing, or short-circuiting lithium rechargeable batteries (found in phones, vapes, or cordless tools) causing intense, fast-spreading chemical fires and toxic gas.

Initial Risk Rating: Medium (Likelihood 2 × Severity 4 = 8)

Mandatory Control Measures:

No Prying/Forcing: Volunteers must never use sharp metal tools near swollen or tightly glued lithium-ion battery packs.

Immediate Isolation: If a battery begins to swell, smoke, or become hot, it must be moved immediately to a designated fire-safe container (or moved outside to the village hall car park if safe to carry).

Fire Extinguisher Proximity: A dry powder or specialised battery fire extinguisher must be clearly visible and located within 5 metres of the electrical repair station.

Residual Risk Rating: Low (Likelihood 1 × Severity 4 = 4)

HAZARD 5: High-Risk Items & Liability Out of Scope

People at Risk: Repairers, Visitors in their own homes later.

Specific Risks: Attempting to fix items that pose an extreme future hazard, leading to home fires or liability issues for the Repair Café.

Initial Risk Rating: High (Likelihood 3 × Severity 4 = 12)

Mandatory Control Measures:

Strict Banned List: The following items are strictly prohibited from being repaired at the event:

Microwave Ovens (extreme high-voltage and radiation risks)

CRT (Old Box-Style) Televisions and Monitors (high residual voltage)

Electric Blankets or Mains-Powered Heating Pads

Device chargers or e-bike chargers with cracked casings

Direct modification of safety critical equipment (e.g., car electronics)

Right to Refuse: Volunteers have the absolute right to refuse any item they deem unstable, unsafe, or beyond their personal skill level.

Residual Risk Rating: Low (Likelihood 1 × Severity 4 = 4)

4. EMERGENCY PROTOCOLS

In the Event of a Shock: Do not touch the victim if they are still in contact with the live current. Immediately hit the wall socket switch, pull the RCD plug, or drop the main circuit breaker at the village hall fuse board. Call 999 immediately.

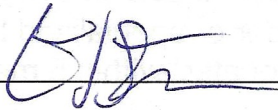
In the Event of a Minor Burn: Immediately run the burn under cool, clean water for at least 20 minutes. Use the village hall first-aid kit to apply a loose, non-fluffy sterile dressing.

In the Event of Fire: Sound the village hall fire alarm, evacuate all volunteers and visitors calmly to the designated assembly point outside, and dial 999. Do not attempt to fight a chemical or large electrical fire with water.

5. ASSESSOR SIGN-OFF

By signing below, the Lead Fixer confirms that the controls listed above will be actively set up, checked, and enforced at every scheduled event.

Lead Fixer Name: Eric STAMMERS

Signature:  Date: 12-9-2025