



HARRIS
BUILDING DIAGNOSTICS

7 Hidden Building Problems That Could Be Costing You Money

A practical guide to recognising early warning signs of heat loss, moisture, water ingress, electrical overheating and other building defects before they develop into more expensive problems.

FREE PROPERTY GUIDE

For homeowners, landlords and property professionals

Know what to look for. Know when to investigate.

Buildings often give warning signs before a defect becomes serious. The challenge is separating a harmless symptom from evidence of a developing problem. This guide highlights seven signs worth paying attention to and explains where thermal imaging and supporting diagnostic checks can add useful evidence.

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1 Cold patches, draughts and rooms that never feel warm

Persistent cold areas can be associated with missing or poorly performing insulation, air leakage, thermal bridging or other differences in the building fabric.

What to look for

Look for rooms that remain noticeably colder than neighbouring spaces, cold bands around junctions, recurring condensation in the same locations, or heating that appears to work hard without improving comfort.

Where diagnostics can help

Thermal imaging can show temperature patterns across accessible surfaces. Used under suitable conditions, these patterns can help target where further investigation is worthwhile.

2 Condensation, mould or a recurring musty smell

Mould is a symptom, not a diagnosis. Moisture can be influenced by ventilation, surface temperature, occupancy, leaks, water ingress or a combination of factors.

What to look for

Pay attention when mould repeatedly returns after cleaning, appears in unusual locations, is associated with staining, or affects one isolated part of a room.

Where diagnostics can help

Combining thermal patterns with moisture readings and site observations can help distinguish likely cold-surface condensation from areas that warrant investigation for another moisture source.

3 Staining that returns after rain

Water ingress can travel before becoming visible internally, so the point where a stain appears is not always the point where water entered the building.

What to look for

Watch for staining that changes after rainfall, dampness around windows or roof junctions, peeling finishes, localised ceiling marks or repeated repairs that have not solved the issue.

Where diagnostics can help

A diagnostic inspection can compare affected and unaffected areas and use thermal and moisture evidence to help narrow down the likely pathway. Weather and building conditions can affect what can be detected.

4 Unexpectedly high heating costs or heat loss

A high energy bill alone does not prove a building-fabric defect, but unexplained heat loss can justify a closer look at how the property is performing.

What to look for

Uneven room temperatures, very cold external walls, obvious draughts, cold loft areas or extensions that behave differently from the original building can all be useful clues.

Where diagnostics can help

Thermal imaging can help visualise relative heat patterns, particularly when there is a suitable temperature difference between inside and outside. It is not an energy performance certificate or a substitute for a full energy assessment.

5 Electrical equipment running unusually hot

Electrical connections and components generate heat in normal operation. An abnormal temperature pattern, particularly compared with similar loaded components, can be a useful indicator that further electrical investigation is needed.

What to look for

Warning signs such as burning smells, discoloration, buzzing, repeated tripping or visibly damaged equipment should never be ignored. Do not remove covers or expose live parts unless you are competent and authorised to do so.

Where diagnostics can help

Thermography can provide non-contact temperature evidence while equipment is operating. Any suspected electrical defect should be assessed and remedied by an appropriately competent electrical professional.

6 Plant that is noisy, unreliable or repeatedly failing

Pumps, motors, bearings, valves, heating equipment and electrical controls can sometimes show abnormal heat patterns before a complete failure occurs.

What to look for

Repeated trips, unusual noise, localised overheating, loss of performance or one component behaving differently from comparable equipment can justify condition-based investigation.

Where diagnostics can help

Thermal imaging can form part of a wider maintenance strategy by providing repeatable evidence that helps teams decide where closer inspection, servicing or specialist testing is needed.

7 The same defect keeps coming back

One of the strongest reasons to investigate is a problem that has already been 'fixed' but continues to return.

What to look for

Repeated decoration after damp staining, recurring mould, repeated roof patching, unexplained electrical trips or replacing components without identifying the underlying cause can all lead to unnecessary spend.

Where diagnostics can help

A diagnostic approach focuses first on gathering evidence and narrowing down likely causes. That can help you brief the right specialist and reduce the risk of paying repeatedly for work that treats the symptom rather than the cause.

When is a diagnostic survey worth considering?

A survey is most useful when there is a defined question to answer. For example: Why does this area keep becoming damp? Is there evidence of abnormal heat loss? Is one electrical component operating differently from comparable equipment? Where should a contractor investigate first?

Good reason to investigate	Less useful on its own
A recurring or unexplained problem	A thermal image with no building context
Evidence needed before deciding on repairs	Trying to prove a defect from temperature alone
Comparing similar electrical or mechanical assets	Inspecting equipment that is not operating under representative conditions
Targeting further intrusive investigation	Treating thermography as a replacement for specialist testing

A note on thermal imaging

Thermal cameras measure infrared radiation and display surface-temperature patterns. They do not see through walls. Interpretation depends on factors such as materials, reflections, weather, loading, heating conditions and access. Thermography is therefore strongest when used as one part of an evidence-based investigation rather than as a stand-alone diagnosis.

Still not sure what is causing the problem?

Harris Building Diagnostics provides independent thermal imaging and building diagnostic investigations to help homeowners, landlords and property teams understand problems before deciding what to repair.

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Important: This guide is general information only. It is not a diagnosis of any particular property and does not replace electrical testing, structural advice, fire-safety assessment, specialist damp/building-pathology advice or other statutory or specialist inspections where required. Do not open electrical enclosures, access unsafe roofs or undertake intrusive work unless appropriately competent and authorised.