

Home Electrical Inspection Guide

Safety Precautions

Before you begin, remember that safety is paramount when inspecting electrical systems. If you're unsure about any aspect of your inspection, or if you encounter any issues, contact a licensed electrician immediately.

Tools Needed

- Insulated screwdriver
- Voltage tester or multimeter
- Flashlight
- Outlet tester
- Safety gloves

Exterior Inspection

Service Drop

- **Check for Damage:**
- Inspect the overhead wires coming into your home for any visible damage.
- **Secure Mast and Weatherhead:**
- Ensure that the service mast and weatherhead are secure and undamaged.

Meter Box

- **Attachment Check:**
- Verify that the meter box is securely attached to your home.
- **Inspect for Wear:**
- Look for signs of rust, corrosion, or damage.

Grounding

- **Grounding Rod:**
- Ensure that the grounding rod is securely in place.

- **Grounding Wire:**
- Verify that the grounding wire is correctly connected.

Interior Inspection

Electrical Panel

Panel Condition

- **Inspect Panel:**
- Open the electrical panel door and inspect for rust, corrosion, or signs of moisture.
- **Secure Cover:**
- Ensure that the panel cover is secure and all screws are in place.

Circuit Breakers

- **Check Breakers:**
- Look for any tripped breakers and reset them if necessary.
- **Test Movement:**
- Turn each breaker off and on to ensure it moves smoothly.
- **Signs of Overheating:**
- Look for any signs of overheating or burning around the breakers.

Wiring

- **Inspect Wires:**
- Check the wires for signs of wear, fraying, or damage.
- **Secure Connections:**
- Ensure that all wire connections are tight and secure.

Outlets and Switches

Outlet Testing

- **Use Outlet Tester:**
- Test each outlet for proper wiring and grounding.
- **Replace Damaged Outlets:**
- Replace any outlets that are loose, damaged, or show signs of burning.

GFCI Outlets

- **Test GFCI:**
- Test all Ground Fault Circuit Interrupter (GFCI) outlets by pressing the "Test" button, then the "Reset" button.
- **Replace if Necessary:**
- Replace any GFCI outlets that do not trip or reset properly.

Switch Operation

- **Check Switches:**

- Flip each switch to ensure it operates smoothly and controls the appropriate fixture.
- **Replace Faulty Switches:**
- Replace any switches that are hot to the touch, make noise, or don't function properly.

Lighting Fixtures

Bulbs

- **Correct Wattage:**
- Ensure all bulbs are of the correct wattage for the fixtures.
- **Replace Bulbs:**
- Replace any burnt-out or flickering bulbs.

Fixture Condition

- **Inspect Fixtures:**
- Check for signs of wear, damage, or overheating around fixtures.
- **Secure Mounting:**
- Ensure fixtures are securely mounted and free of dust and debris.

Cords and Appliances

Extension Cords

- **Temporary Use Only:**
- Avoid using extension cords as permanent wiring solutions.
- **Inspect for Damage:**
- Inspect all cords for fraying, cracking, or damage.

Appliance Cords

- **Check Appliance Cords:**
- Inspect the cords of all appliances for signs of wear or damage.
- **Replace if Necessary:**
- Replace any damaged cords or appliances.

Attic and Basement Inspection

Wiring

- **Inspect Wiring:**
- Inspect exposed wiring in the attic and basement for signs of wear, damage, or pests.
- **Prevent Contact:**
- Ensure that wires are not in contact with metal objects or insulation materials.

Junction Boxes

- **Check Junction Boxes:**
- Verify that all junction boxes have covers and that wires inside are securely connected.

Smoke and Carbon Monoxide Detectors

Testing

- **Test Detectors:**
- Test each smoke and carbon monoxide detector by pressing the "Test" button.
- **Replace Batteries:**
- Replace batteries if necessary and ensure that detectors are less than 10 years old.

Final Steps

Documentation

- **Record Issues:**
- Document any issues you find and plan to address them.
- **Schedule Professional Inspection:**
- Schedule a professional inspection if you encounter any significant problems or if you're unsure about any aspect of the inspection.

Regular Maintenance

- **Annual Inspection:**
- Plan to conduct an electrical inspection annually.
- **Keep Records:**
- Keep a record of each inspection for future reference.

By following this checklist, homeowners can identify and address common electrical issues, ensuring the safety and efficiency of their home's electrical system. If any concerns arise during the inspection, it's always best to consult with a licensed electrician.

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