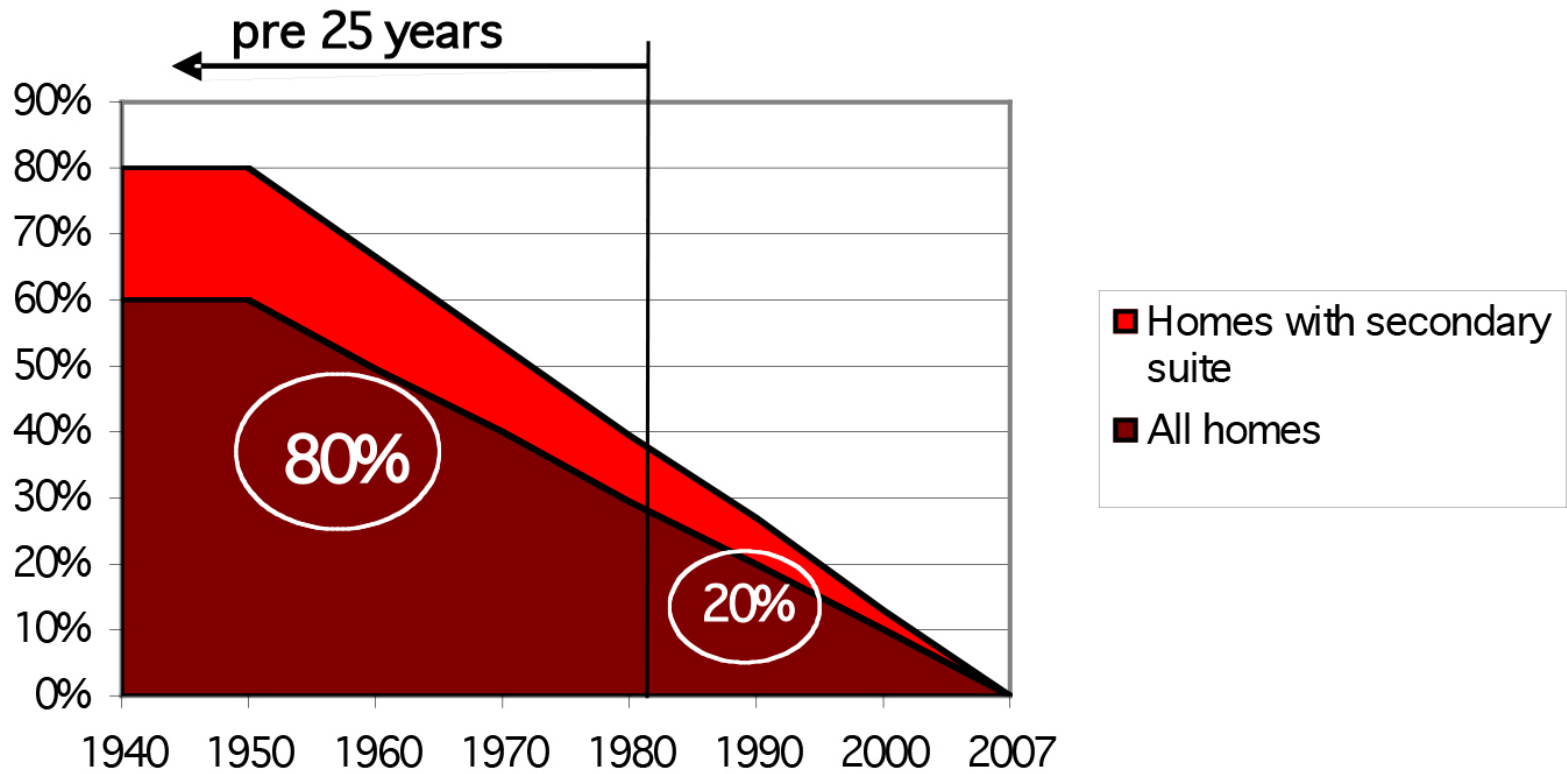


ELECTRICAL FIRE RISKS IN OLDER HOMES

Summary and Recommended Upgrades



Homes with dangerous wiring



Key causes of electrical fires in houses over 45 years of age

- Lack of maintenance/deterioration
- DIY work
- Occupant actions



Lack of maintenance

- Outdated electrical panels
- Build up of debris in electrical boxes
- Loose connections in panel and electrical boxes



“Do It Yourself” (DIY) installations



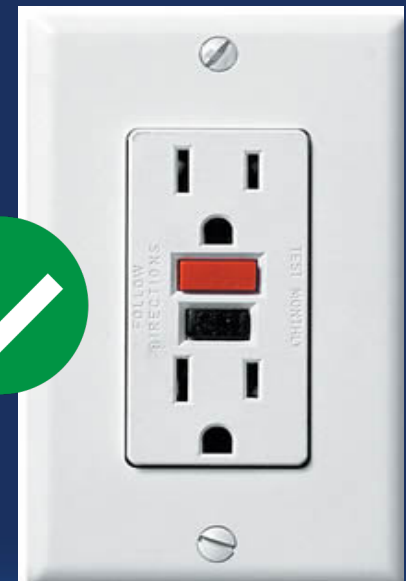


Occupant hazards

- Extension cords overloaded or misused.
- Too many appliances plugged into the same outlet
- Electric heating devices too close to flammable material

Additional problems in houses built pre-1960

- Ungrounded outlets due to Knob-&-tube, or NMD-1 wiring
- Thus no equipment grounding
- Can usually be corrected with GFCIs



Additional problems in houses built 1965 to 1975

- Aluminum wiring terminating on devices not rated for aluminum
- Can usually be corrected in “Pigtailing”
- However: **MUST** use the correct wire connectors!





ORANGE YELLOW BLUE BLACK
#30 series

For Copper only

Rated for 105°C

Internal spring: Steel



BROWN
#60 series

For Aluminum/Copper

Rated for 125°C

Internal spring: BRONZE

Source: Thomas & Betts, "Marette"

Solution

Have a house Electrical Safety Survey:

- Conducted by a Master Electrician (an “FSR” in BC)
- Comprehensive examination
- Without conflict of interest

PowerCheck provides this service.

Corrective actions and new installations

- Only use a “Licensed Electrical Contractor”
- List of Licensed Electrical Contractors is available from Technical Safety BC

PowerCheck's Risk rating

- **Extreme Risk:** Fix now!
- **High Risk:** Fix ASAP (within 30 days)
- **Medium Risk:** Acceptable. Electrical system appears to comply with code applicable at time of install.
- **Low Risk:** Acceptable plus additional safety features added. House comparable in safety to that of a home built in 2001.

Recommended upgrades for PowerCheck's Low Risk rating

- Gas line bonding
- GFCIs in wet locations
- Smoke alarms as per 1995 NBCC



PowerCheck

Experts in Old Home Electrical Safety