

HOLIDAY ELECTRICAL ADVISORY

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Remote home offices plus holiday lights can equal electrical overload

The dark days of December naturally add a greater electrical load on our outlets. This year, remote home office work due to COVID19 is

adding a heavier electrical load than is usually imposed with traditional holiday lighting and shorter daylight hours.

Nearly 50,000 residential fires¹ are caused annually by electrical failures, with overloaded outlets one of the major causes.

Things to consider in preventing an electrical overload:

- **Electrical inspection:** Have an electrician check your home wiring and electrical connections to ensure they are in good condition; address faulty electrical sockets, damaged circuit breakers, loose connections, and aging wires.
- **Extension cords should be used only temporarily.** If you rely on extension cords to power appliances, you may need to add new outlets. Have a qualified electrician check your home and install additional outlets.
- **Know the wattage of your circuit breakers:** The typical modern dwelling wall outlet can handle a maximum of 1800 watts, (15A x 120 Volts = 1800 watts). The National Electric Code² states no more than 80% -- (or 1440 watts) -- should be used at one time. Electrical overloads happen when too many electrical devices are plugged into a single circuit. A typical home office can use approximately 2300 watts, already jeopardizing safety:

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- Electric heaters use approximately 1,500 watts (1,000 watts equals 1 kilowatt, so a heater uses 1.5 kilowatts of power).
- Table lamp: 50 watts.
- Floor lamp: 150 watts.
- Big screen TV: 100 watts.
- 17-inch computer and monitor: 200 watts.
- Printers/scanners in sleep mode: 5 to 10 watts for standard models; as much as 30 watts for wider-width color printers.
- A 15-inch laptop typically uses approximately 50 watts.
- iPad charger is 10 watts.
- PC USB charger delivers 2.5 - 5 watts.
- An iPhone charger uses 5 watts.
- Portable vacuum cleaner approximately 700 watts.

All of that is before you flip the Christmas tree lights Know your electrical consumption more than ever this year and use it safely. Remember the 80% rule.

About Lorne Brunner, MS-Forensics, IAAI-CFI(v)/ECI, NAFI-CFEI/CFII, PI: Brunner founded Fire-pi in 2019. Prior to starting Fire-pi, Brunner investigated more than 2,000 fires over 15+ years of working for multiple national fire investigation firms. Brunner is a nationally recognized expert in forensic fire and explosion investigation and has led large loss teams domestically and internationally. He is a Certified Fire Investigator, licensed private investigator (MN), and certified expert witness. Brunner holds a master's degree in forensics - National University, San Diego, CA; a bachelor's in sociology - University of NY and is a retired US Navy veteran. **Brunner is available for interviews.** For more information <https://www.fire-pi.com/about>

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Reference:

1. National Fire Protection Association
2. National Electrical Code 70