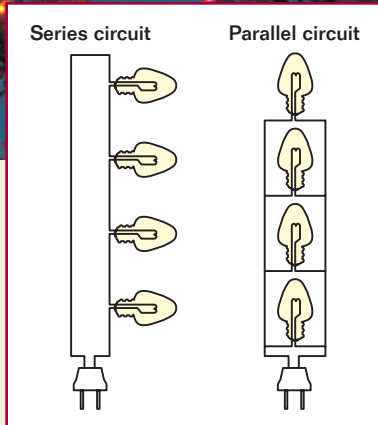


Circuits and Circuit Elements



For strings of decorative lights—such as these that illuminate the Riverwalk in San Antonio, Texas—two types of electric circuits can be used. In a series circuit, illustrated on the left, the entire set goes dark when one bulb is removed from the circuit. In a parallel circuit, illustrated on the right, other bulbs remain lighted even when one or more bulbs are removed.

WHAT TO EXPECT

In this chapter, you will explore the basic properties of series and parallel circuits.

Why it Matters

All electric circuits are wired in series, parallel, or a combination. The type of circuit affects the current and potential difference of elements connected to the circuit, such as decorative light bulbs on strands or appliances in your home.

CHAPTER PREVIEW

- 1 Schematic Diagrams and Circuits**
 - Schematic Diagrams
 - Electric Circuits
- 2 Resistors in Series or in Parallel**
 - Resistors in Series
 - Resistors in Parallel
- 3 Complex Resistor Combinations**
 - Resistors Combined Both in Parallel and in Series