

UNIT 26

GFCIs, GFPEs, AFCIs, AND SPDs

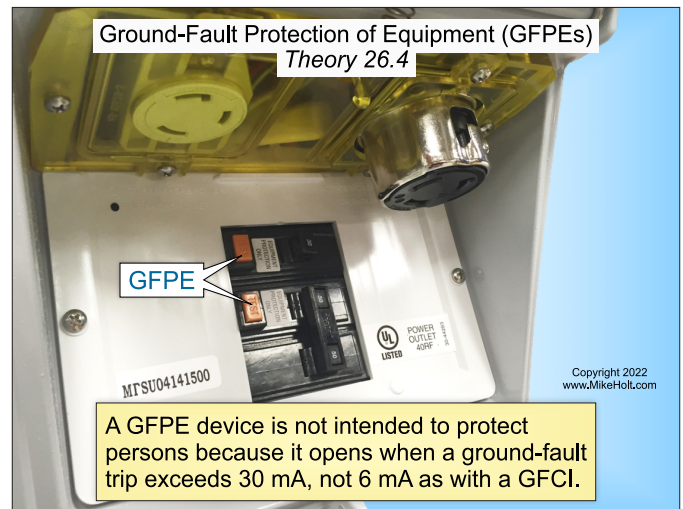
26.1 Introduction

In addition to overcurrent protection of electrical circuits, electronic devices with the technology to protect against electric shock and fire are used in the electrical system. In this unit you will learn:

- ▶ what a ground-fault circuit interrupter is
- ▶ what an arc-fault circuit interrupter is
- ▶ what ground-fault protection of equipment is
- ▶ what a surge protective device is

26.4 Ground-Fault Protection of Equipment (GFPEs)

Ground-fault protection of equipment (GFPE) devices detect the imbalance of current between circuit wires. During normal operation, the current returning to the power source through the GFPE is equal to the current leaving the power source. If the difference between the two wires through the GFPE protective device exceeds 30 mA, the solid-state circuitry in the device will open the circuit. This type of protective device is not intended to protect persons because its opening ground-fault trip setting is 30 mA—not 6 mA as with a GFCI. ▶**Figure 26-9**



▶**Figure 26-9**