



EXHIBIT 210.7 Two 20-ampere duplex receptacles with integral GFCI that may also protect downstream loads.

The manufacturer's installation and use instructions specify monthly testing. To facilitate this important ongoing safety check, GFCIs installed to protect the receptacles covered in 210.8(A) and (B) are required to be readily accessible.

GFCIs operate on fault currents of 4 to 6 milliamperes. At trip levels of 5 milliamperes (the instantaneous current could be much higher), a shock can be felt during the fault. The shock can lead to an involuntary reaction that could cause a secondary accident such as a fall. GFCIs do not protect persons from shock hazards where contact is made with the ungrounded (hot) and grounded (neutral) conductors or between different ungrounded (hot) conductors.

Although 210.7 is the main rule for GFCIs, other specific applications that require the use of GFCIs are listed in Commentary Table 210.1.

Δ (A) Dwelling Units. All 125-volt through 250-volt receptacles installed in the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel:

(1) Bathrooms

All 125- through 250-volt, single-phase receptacles for cord-and-plug-connected equipment in bathrooms must have GFCI protection, including receptacles that are integral with luminaires. See commentary following 210.8, Exception to (1) through (4) for other types of receptacle, circuit, and equipment GFCI requirements.

The term *bathroom* (see Article 100) applies to the entire area, whether or not a separating door, as illustrated in Exhibit 210.8, is present. If they are adjacent and in close proximity, one receptacle

COMMENTARY TABLE 210.1 Additional Requirements for the Application of GFCI Protection

| Location | Applicable Section(s) |
|--|--|
| Aircraft hangars | 513.12 |
| Appliances | 422.5(A) |
| Audio system equipment | 640.10(A) |
| Automotive vacuum machines | 422.5(A) |
| Boathouses | 555.35 |
| Carnivals, circuses, fairs, and similar events | 525.23(A) |
| Commercial garages | 511.12 |
| Dishwashers | 422.5(A) |
| Drinking fountains | 422.5(A) |
| Electrically operated pool covers | 680.27(B)(2) |
| Elevators, escalators, and moving walkways | 620.6 |
| Feeders | 215.9 |
| Floating buildings | 555.53 |
| Fountains | 680.51(A), 680.56(A) |
| Health care facilities | 517.21 |
| High-pressure spray washers | 422.5(A) |
| Hydromassage bathtubs | 680.71 |
| Marinas and boatyards | 555.33 (B)(1) |
| Mobile and manufactured homes | 550.13(B), 550.13(E), 550.32(E) |
| Natural and artificially made bodies of water | 682.15 |
| Park trailers | 552.41(C), 552.41(D) |
| Pools, permanently installed | 680.22(A)(2), 680.22(B)(3), 680.23(A)(3) |
| Pools, storable | 680.32 |
| Sensitive electronic equipment | 647.7(A) |
| Signs within fountains | 680.57(B) |
| Signs, portable or mobile | 600.10(C)(2) |
| Space heating embedded in floor | 424.44(E) |
| Spas and hot tubs | 680.42(A)(2), 680.43, 680.44 |
| Sump pumps | 422.5(A) |
| Recreational vehicles | 551.40(C), 551.41(C) |
| Recreational vehicle parks | 551.71(F) |
| Replacement receptacles | 406.4(D)(3) |
| Temporary installations | 590.6 |
| Tire inflation machines | 422.5(A) |
| Tubs, therapeutic | 680.62(A) |
| Vending machines | 422.5(A) |

outlet, meeting the proximity requirement of 210.52(D) for each basin, can be used to meet the receptacle outlet location requirement as shown in Exhibit 210.8 (top). Exhibit 210.8 (bottom) illustrates the requirements of 210.11(C)(3), which provides two acceptable supply circuit arrangements for the bathroom receptacle outlet(s).

(2) Garages and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use

The requirement for GFCI-protected receptacles in garages and sheds, as illustrated in Exhibit 210.9, improves safety for persons using portable handheld tools, string trimmers, snow blowers, and similar tools that might be connected to the receptacles.