

SECTION 16140

WIRING DEVICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes wall switches; wall dimmers; receptacles; multi-outlet assembly; and device plates and decorative box covers.

B. RELATED WORK:

1. Section 16130 – Raceway and Boxes: Outlet boxes for wiring devices
2. Section 16134 – Underfloor Raceway Assemblies: Service fittings for receptacles installed in underfloor raceways.
3. Section 16141 – Floor Boxes: Service fittings for receptacles installed on floor boxes.
4. Section 16141 – Floor Boxes: Poke-through receptacles

1.2 REFERENCES

- A. NECA (National Electrical Contractor’s Association) – Standard of Installation
- B. NEMA WD 1 (National Electrical Manufacturers Association) – General Requirements for Wiring Devices
- C. NEMA WD 6 – Wiring Device, Dimensional Requirements

1.3 SUBMITTALS

A. Product Data: Submit manufacturer’s catalog information showing dimensions, colors, and configurations

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years (documented) experience.

PART 2 - PRODUCTS

2.1 WALL SWITCHES

- A. Product Description: NEMA WD 1, Heavy-Duty, AC only general-use snap switch.
- B. Body and Handle: Ivory or white plastic with toggle handle.
- C. Indicator Light: Separate pilot strap; color lens, color as indicated
- D. Locator Light: Lighted handle type switch; clear color handle
- E. Ratings
 - 1. Voltage: 120-277 volts, AC
 - 2. Current: 20 amperes

2.2 WALL DIMMERS

- A. Product Description: NEMA WD 1; Semiconductor dimmer for incandescent lamps, Type as indicated on drawings.
- B. Body and Handle: Ivory plastic with linear slide.
- C. Voltage: 120 (____) volts.
- D. Power Rating: Match load shown on drawings; 600 (____) watts minimum.
- E. Power Rating: As indicated in schedule
- F. Accessory Wall Switch: Match dimmer appearance.

2.3 RECEPTACLES

- A. Product Description: NEMA WD 1, Heavy-duty general use receptacle.
- B. Device Body: Ivory, white or red plastic.
- B. Configuration: NEMA WD 6, type as specified and indicated.
- C. Convenience Receptacle: Type 5-20

- D. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements.

2.4 WALL PLATES

- A. Decorative Cover Plate: As indicated
- B. Jumbo Cover Plate: As indicated
- C. Weatherproof Cover Plate: Gasketed cast metal plate with hinged and gasketed device cover.
- D. Cover Plate

2.5 MULTIOUTLET ASSEMBLY

- A. Multi-outlet Assembly: Sheet metal channel with fitted cover, with pre-wired receptacles, suitable for use as multi-outlet assembly.
- B. Receptacles: Provide covers and accessories to accept (convenience) receptacles specified in this Section.
- C. Receptacles: NEMA WD 6, type 5-15R, single receptacle.
- D. Receptacle Spacing: As indicated
- E. Receptacle Color: Ivory
- F. Channel Finish: Ivory enamel.
- G. Fittings: Furnish manufacturer's standard couplings, elbows, outlet and device boxes, and connectors.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify that wall openings are neatly cut and will be completely covered by wall plates.
- B. Verify that outlet boxes are installed at proper height.
- C. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

3.2 PREPARATION

- A. Clean debris from outlet boxes

3.3 INSTALLATION

- A. Install in accordance with NECA “Standard of Installation”
- B. Install devices plumb and level.
- C. Install switches with OFF position down.
- D. Install wall dimmers to achieve full rating specified and indicated after de-rating for ganging as instructed by manufacturer.
- E. Do not share neutral conductor on load side of dimmers.
- F. Install receptacles with grounding pole bottom.
- G. Connect wiring device grounding terminal to outlet box with bonding jumper and branch circuit equipment grounding conductor.
- H. Use jumbo size plates for outlets installed in masonry walls.
- I. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- J. In mechanical equipment rooms, illuminated light switches shall be provided.
- K. Outlets served from an emergency power system shall be red.
Outlets served from the normal power system shall be ivory or white.

3.4 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate locations of outlet boxes provided under Section 16130 to obtain mounting heights specified and indicated on drawings.
- B. Install wall switch 48 (_____) inches above finished floor
- C. Install convenience receptacles 18 inches above finished floor.
- D. Install dimmer 48 inches above finished floor.
- E. Coordinate the installation of wiring devices with underfloor raceway service fittings provided under Section 16134.

- F. Coordinate the installation of wiring devices with floor box service fittings provided under Section 16134.

3.5 FIELD QUALITY CONTROL

- A. Section 01400 – Quality Requirements: Testing and inspection services.
- B. Section 01700 – Execution Requirements: Testing, adjusting, and balancing.
- C. Inspect each wiring device for defects
- D. Operate each wall switch with circuit energized and verify proper operation
- E. Test each receptacle device for proper polarity.
- F. Test each GFCI receptacle device for proper operation.

3.6 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

3.7 CLEANING

- A. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION