

SECTION 262726-WIRING DEVICES**PART 1 GENERAL****1.1 SUMMARY**

- A. Section includes wall switches; wall dimmers; receptacles; multioutlet assembly; and technology floor box.
- B. Related Sections:
 - 1. Section 260533 - Raceway and Boxes for Electrical Systems

1.2 REFERENCES AND QUALITY ASSURANCE

- A. Wall Switches – UL 20, NEMA WD 1.
- B. NEMA WD 1 (National Electrical Manufacturers Association) - General Requirements for Wiring Devices.
- C. NEMA WD 6 (National Electrical Manufacturers Association) - Wiring Device -- Dimensional Requirements.
- D. Floor Boxes – Underwriters Laboratory Listed.
- E. Wall Plates – Underwriter’s Laboratory 514, Canadian Standard Association.
- F. Technology Floor Box – Underwriter’s Laboratory 514A.
- G. NFPA 70 – National Electric Code.
- H. Duplex Receptacles – UL 498, NEMA WD1
- I. UL 486A (torque values) and UL486B (connector and device).

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit manufacturer's catalog information showing dimensions, colors, and configurations.
- C. Samples: Submit two samples of each wiring device and wall plate illustrating materials, construction, color, and finish.

1.4 QUALIFICATIONS

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

1.5 EXTRA MATERIALS

- A. Refer to Division 1 requirements.
- B. Furnish two of each style, size, and finish wall plate.

PART 2 PRODUCTS

2.1 WALL SWITCHES

- A. Manufacturers:
 - 1. Bryant
 - 2. Hubbell.
 - 3. Leviton Mfg.
- B. Product Description: NEMA WD 1, Heavy-Duty, AC only general-use snap switch.
- C. Body and Handle: Ivory plastic with toggle handle.
- D. Specified grade, with ground screw.
- E. Ratings:
 - 1. Voltage: 120-277 volts, AC.
 - 2. Current: 20 amperes.

2.2 WALL DIMMERS

- A. Manufacturers:
 - 1. Arrow Hart Wiring Devices.
 - 2. Eagle Electric.
 - 3. Lutron
 - 4. Hubbell.
 - 5. Leviton Mfg.
- B. Product Description: NEMA WD 1; Semiconductor dimmer for incandescent lamps, Type as indicated on Drawings or in schedule.
- C. Architectural grade, rotary knob series.
- D. Body and Handle: Ivory plastic with linear slide.
- E. Voltage: 120 volts.
- F. Power Rating: 1000 watts minimum.
- G. Accessory Wall Switch: Match dimmer appearance.

2.3 RECEPTACLES

- A. Manufacturers:
 - 1. Arrow Hart Wiring Devices.

2. Eagle Electric.
 3. Square D.
 4. Hubbell.
 5. Leviton.
- B. Product Description: NEMA WD 1, Heavy-duty general use receptacle.
- C. Device Body: **Ivory plastic with 302 Stainless Steel cover plates.**
- D. Configuration: NEMA WD 6, type.
- E. Convenience Receptacle: Type 5-20.
- F. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements.
- G. 1-pole, 3 wire, grounding.
- H. 20 amp, 125 volt rated.
- I. Specification grade, Duplex, back and side wired, brass back strap
- J. Receptacles designated as general use shall be of a different color from those designated as computer receptacles.
- K. Ground fault protection where required shall be built into receptacle.

2.4 WALL PLATES

- A. Manufacturers:
1. Arrow Hart Wiring Devices.
 2. Eagle Electric.
 3. Square D.
 4. Hubbell.
 5. Leviton.
- B. Cover Plate: 302 stainless steel, 32D finish
- C. Weatherproof Cover Plate: Stainless steel plate with hinged and gasketed device cover.
- D. Configuration of plates to match devices.

2.5 MULTIOUTLET ASSEMBLY

- A. Manufacturers:
1. Arrow Hart Wiring Devices.
 2. Eagle Electric.
 3. Square D.
 4. Hubbell.
 5. Wiremold

- B. Multi-outlet Assembly: Sheet metal channel with fitted cover, suitable for use as multi-outlet assembly.
- C. Receptacles: Furnish covers and accessories to accept convenience receptacles specified in this Section.
- D. Receptacles: NEMA WD 6, type 5-20R, single receptacle.
- E. Receptacle Spacing: 6 inches as indicated on Drawings.
- F. Receptacle Color: Ivory.
- G. Channel Finish: Ivory enamel.
- H. Fittings: Furnish manufacturer's standard couplings, elbows, outlet and device boxes, and connectors.

2.6 TECHNOLOGY FLOOR BOX

- A. Load bearing steel plate with finish floor recess.
- B. Angle floor access outlets.
- C. Separate concrete form box.
- D. Metal divider between 120 volt and communications compartment.
- E. Metal outlet and device boxes.
- F. Watertight floor box with cover suitable for intended use.
- G. Boxes shall have a minimum depth of 2 inches.
- H. Acceptable mfg's are Hubbell, Wiremold and Walker

PART 3 EXECUTION

3.1 EXAMINATION

- A. Refer to Division 1 requirements.
- B. Verify outlet boxes are installed at proper height.
- C. Verify wall openings are neatly cut and completely covered by wall plates.
- D. Verify 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 derating for ganging as instructed by manufacturer.
- E. Do not share neutral conductor on load side of dimmers.
- F. Install receptacles with grounding pole on bottom.
- G. Connect wiring device grounding terminal to outlet box with bonding jumper used except where IG is.
- H. Install 302 stainless steel plates on switch, receptacle, and blank outlets in finished areas.
- I. Connect wiring devices by wrapping solid conductor around screw terminal. Install stranded conductor for branch circuits 10 AWG and smaller. When stranded conductors are used in lieu of solid, use crimp on fork terminals for device terminations. Do not place bare stranded conductors directly under device screws.
- J. Use standard size plates for outlets installed in masonry walls.
- K. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- L. Provide receptacles on roof as required by National Electric Code.
- M. Toggle type in classrooms and key type in public areas.

3.4 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate locations of outlet boxes provided to obtain mounting heights as specified and as indicated on drawings.
- B. Outlet boxes for data/voice and voice outlets shall be 2 gang with minimum depth of 3-1/2 inches.
- C. Install wall switch 48 inches above finished floor.
- D. Install convenience receptacle 18 inches above finished floor.
- E. Install convenience receptacle 6 inches above counter.
- F. Install dimmer 48 inches above finished floor.

3.5 FIELD QUALITY CONTROL

- A. Refer to Division 1 requirements.
- B. Inspect each wiring device for defects.
- C. Operate each wall switch with circuit energized and verify proper operation.
- D. Verify each receptacle device is energized.
- E. Test each receptacle device for proper polarity.
- F. Test each GFCI receptacle device for proper operation.

3.6 ADJUSTING

- A. Section 017000 - Execution Requirements: Testing, adjusting, and balancing.
- B. 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 262726