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| **Revision History** | |
| **Revision Date** | **Section/Nature of Revision** |
| **3/1/17** | Document Issued |
| **10/1/24** | 1.3: removed B NEMA WD 5 Specific Purpose Wiring Devices  2.3 B: added tamper resistant  2.3 G: removed hospital and added industrial  2.4 B: removed use and added in-use  2.6 A 1: changed model number from 1725L to 2000 Series  2.6 C: changed 40 to 20  2.6 D: changed user selectable to automatic adjustment for daylight saving time function  2.6 G: changed with rechargeable battery to via capacitor  3.5 F: changed 120 V, 15 amp and 20 amp receptacle to 150 V, 50 amp or less and 3-phase 150 V to ground or less 100 amp receptacle.  3.6 H: added section  3.6 I: added section |

**PART 1 - GENERAL**

1.1 SECTION INCLUDES:

1. Wall Switches
2. Wall Dimmers
3. Receptacles
4. Device Plates and Decorative Box Covers
5. Floor Box Service Fittings
6. Time Switch
   1. RELATED SECTIONS
7. Section 26 05 33.13 - Conduit and Raceways
8. Section 26 05 33.16 - Boxes

1.3 REFERENCES

1. NEMA WD 1 - General Purpose Wiring Devices
2. NEMA WD 6 - Wiring Device Configurations
3. Federal Specification - FS-W-C-596 Series - General Specifications
4. Federal Specification - FS-W-S-896 Series - Toggle Switches

1.4 SUBMITTALS

1. Submit under provisions of Division 01.
2. Product Data: Provide manufacturer's catalog information showing dimensions, colors and configurations.
3. Manufacturer's Instructions: indicate application conditions and limitations of use stipulated by product testing agency specified under regulatory requirements.

**PART 2 - PRODUCTS**

2.1 WALL SWITCHES

1. Manufacturers:
2. Hubbell
3. Leviton
4. Pass & Seymour
5. Substitutions: under provisions of Division 01
6. Description: NEMA WD 1, heavy-duty industrial grade AC only general-use snap switch.
7. Device Body: White plastic with toggle handle.
8. Indicator Light: Separate pilot strap; red color lens.
9. Locator Light: Lighted handle type switch; red color handle.
10. Voltage Rating: 120-277 volts, AC.
11. Current Rating: 20 amperes.
12. Motor Rating: Motor rated for fractional horsepower.
13. Motors 1/2 HP and Smaller: Provide switch for service disconnect.

2.2 WALL DIMMERS-LINE VOLTAGE

A. Manufacturers:

1. Lutron
2. Leviton
3. Hubbell
4. Pass & Seymour
5. Substitutions: under provisions of Division 01

B. Device Body: white plastic with slider knob

C. Voltage: 120 volts.

D. Power Rating: match load shown on drawings.

2.3 RECEPTACLES

1. Manufacturers:
2. Hubbell
3. Leviton
4. Pass & Seymour
5. Substitutions: Under provisions of Division 01
6. Description: NEMA WD 1, heavy-duty industrial grade, general-use, tamper resistant receptacle.
7. Device Body: white plastic for general use receptacles. Gray plastic for clean/data communications receptacles. White for tamper/weather resistant. Red for emergency. Orange for secondary power source.
8. Configuration: NEMA WD 6, type as specified and indicated.
9. Convenience Receptacle: NEMA Type 5-20.
10. GFCI Receptacle: convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements.
11. Tamper-Resistant Receptacles: shall be industrial grade with integral thermoplastic safety shutter to prevent access of foreign objects to the electrical contacts of the receptacle.
12. Range, dryer and special purpose receptacles shall be four (4) wire/grounding type. This Contractor shall verify equipment housing has not been bonded by the manufacturer.
13. NEMA Type 520 surge feed thru type arrestor receptacle, BLUE color.

2.4 WALL PLATES

1. Device Cover Plate: smooth stainless-steel, only. Stainless-steel oversized cover plates required. Plastic, fiberglass, nylon and veneer are not acceptable.
2. Hubbell
3. Leviton
4. Pass & Seymour
5. Substitutions: under provisions of Division 01
6. Weatherproof In-Use Cover Plate: aluminum, low-profile, expandable, in-use cover.
7. Taymac, Model No. MX3200
8. Hubbell
9. Red Dot
10. Substitutions: under provisions of Division 01

C. Provide P-touch labeling of circuit information on all wiring device cover plates.

2.5 FLOOR MOUNTED SERVICE FITTINGS

A. Flush Cover Convenience Receptacle:

1. Walker
2. Hubbell
3. Arrow Hart
4. Steel City
5. Substitutions: under provisions of Division 01
6. Material: brass
7. Configuration: duplex flap opening

B. Flush Cover Combination Fitting:

1. Walker
2. Hubbell
3. Steel City
4. Substitutions: under provisions of Division 01
5. Material: brass
6. Configuration: duplex flap opening

C. Carpet or Tile Trim Ring:

1. Walker
2. Hubbell
3. Steel City
4. Substitutions: under provisions of Division 01
5. Material: brass

2.6 TIME SWITCHES

A. Manufacturers:

1. Intermatic Model No. ET2000 Series (Basis of Design)
2. Paragon
3. Tork

B. Furnish and install (where shown) time switches of the multipurpose two-channel digital or seven-day type. Display shall be of LCD type. Controller shall have 365-day holiday capabilities with sixteen single dates and five holiday blocks of unlimited duration.

C. Time switch contacts shall be capable of switching 20 amperes per pole continuously at rated voltage, as indicated and shall have pole and switching arrangement, as indicated on the drawings.

D. Time switch shall have automatic adjustment for daylight saving or standard time function. Controller shall be capable of manual override on/off.

E. Enclosure shall be NEMA 1 for indoor flush use and NEMA 3R for outdoor use. NEMA 1 enclosure shall have combination 1/2” - 3/4" knockouts on bottom and both sides. Provision shall be made for positive padlocking and/or sealing.

F. Terminals shall be capable of receiving up to #8 AWG wire.

G. Controller shall have 72-hour memory back-up via capacitor.

**PART 3 – EXECUTION**

3.1EXAMINATION

1. Verify conditions under provisions of Division 01.
2. Verify outlet boxes are installed at proper height.
3. Verify wall openings are neatly cut and will be completely covered by wall plates.
4. Verify floor boxes are adjusted properly.
5. Verify branch circuit wiring installation is completed, tested and ready for connection to wiring devices.
6. Verify/provide all lighting wall switches to be on opposite side/direction of door swing (door swing not to obstruct switch access).

3.2 PREPARATION

1. Provide extension rings to bring outlet boxes flush with finished surface. Shall not be set back from the finished surface more than 1/4" per NEC 314.20.
2. Clean debris from outlet boxes.
3. All devices shall be U.L. listed and labeled. Prior to installation, all wiring devices shall be stored on the jobsite in the original labeled cartons.

3.3 INSTALLATION

1. Install products in accordance with manufacturer's instructions. All wiring devices shall be of one manufacturer; no mixing of manufacturers shall be permitted.
2. Install devices plumb and level.
3. Install switches in the vertical position with OFF position down.
4. Install wall dimmers to achieve full rating specified and indicated after derating for ganging, as instructed by manufacturer.
5. Do not share neutral conductor on load side of dimmers.
6. Install receptacles with grounding pole on bottom.
7. Connect wiring device grounding terminal to outlet box with bonding jumper and branch circuit equipment grounding conductor.
8. Connect wiring devices by wrapping conductor clockwise around screw terminal. “Quick wire”/push-in/snap-in residential type wiring devices shall not be permitted. Receptacles and switches shall be pig-tailed, no feed through wiring.
9. Install galvanized and raised steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings and on surface mounted outlets.
10. Assemble all devices and equipment shipped loose with furniture furnished by others as a part of this project. Provide all necessary wiring, plugs, conduit, etc., required to complete this work.

3.4 INTERFACE WITH OTHER PRODUCTS

A. Coordinate locations of outlet boxes provided under Section 26 05 33.16 to obtain mounting heights specified and indicated on drawings.

B. Install wall switch at 48” above finished floor to top of outlet box.

C. Install convenience receptacle at 16” above finished floor to top of outlet box.

D. Install convenience receptacle at 6" to top of outlet box, above backsplash of counter and coordinate with Architectural drawings.

E. Install dimmers, light switch and other similar standard height device outlet boxes at forty-eight inches above finished floor to top of outlet box.

F. Install telephones and computer outlet boxes at 16" above finished floor to top of outlet box.

G. Install telephone and computer outlet boxes at 6" to top of outlet box, above backsplash of counter and coordinate with Architectural drawings.

3.5 FIELD QUALITY CONTROL

A. Inspect each wiring device for defects.

B. Operate each wall switch with circuit energized and verify proper operation.

C. Verify that each receptacle device is energized.

D. Test each receptacle device for proper polarity.

E. Test each GFCI receptacle device for proper operation. Using a tester specifically designed to test GFCI receptacles or branch circuits.

F. All 150 V, 50 amp or less and 3-phase 150 V to ground or less 100-amp receptacles in kitchens and within 6’ of a water source as well as lockers shall be GFCI protected per 218.8 (B).

G. All interior rooms/spaces, including classrooms with more than one entrance/exit, shall have three way or four-way lighting control at each entrance/exit.

1. As per FBC 453.17.8, GFCI receptacles shall be provided in the following areas:
2. All elementary special needs, prekindergarten and kindergarten classrooms.
3. All building entry vestibules.
4. All mechanical, boiler and electrical rooms.
5. As per 427.5 (A), water coolers and vending machines.

3.6 ADJUSTING

1. Adjust devices and wall plates to be flush and level.

**\*\*\*END OF SECTION\*\*\***