



**26 0553 –**  
**Identification for Electrical Systems**

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Last Update: May 12, 2017

- A. This Guideline is applicable to all new construction, building renovations, replacement programs or repair.
- B. Switchboards, Motor Control Centers, Power Panels:
  - 1. Provide an engraved plastic label with 3/4" high letters, securely attached, identifying the unit, voltage, phase, wire.
    - a. Example: "MDP-1, 208Y/120V, 3Ø, 4W".
  - 2. Branch switches, starters, etc., to be labeled with engraved plastic label with 3/16" high letters securely attached to exterior of device.
  - 3. Label to include the name of the load it is feeding and with the source of the power.
    - a. Example: "ACP-20 fed from MCC 20, Cubicle 5A located in room #B64"
- C. Automatic Transfer Switches:
  - 1. Label "Normal" and "Emergency" poles with engraved plastic tag.
  - 2. Label transfer switches with source designations as "Normal Switchboard M-L-1" or "Emergency - Diesel Generator".
- D. Plug-In Bus Ducts:
  - 1. Label all plug-in bus ducts in each room, with stenciling, indicating voltage, phase, and panel designation.
  - 2. Label all bus plugs per NEC #110-22.
- E. Panelboards:
  - 1. Provide approximately 5" x 8" frame inside the door with plastic protected typewritten directory card identifying all circuits with Owner's final room number.
    - a. Example: "Room 204 - outlets - North wall".
  - 2. Engraved plastic label with 1/2" high letters on interior of panel cover (or outside of panel without doors) identifying panel, voltage, phase, wire, and source of feed.
    - a. Example: "L-B-1, 208Y/120V, 3Ø, 4W. - MDP-1, Circuit 4".
- F. Pull & Junction Boxes, Feeder Bus Taps:
  - 1. Identify by stenciling on the boxes, system use, etc., as directed.
  - 2. Covers for pull and junction boxes shall be marked with felt tip pen, crayon or other approved permanent marking means, indicating system type i.e. lighting, power ,emergency, etc., panel and circuit number, if applicable destination, etc.
    - a. Example: "EM RM. #213, Panel E-1, Cir. #1, 3, 5"
- G. Starters, Disconnect Switches:
  - 1. Label each with engraved plastic label with 3/16" high letters securely attached to the exterior of device as follows: Equipment served, Source of feed and circuit number.
    - a. Example: "ACP-20 fed from MCC 20, cubicle 5A located in room #B64".



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H. Devices

1. Outlet covers should be marked on the back with a clear label with black lettering or legibly written with indelible marker indicating panel and circuit.
  - a. Example: "Panel PR2-B4, Cir. # 3"
2. Switch plates should be marked on the back with a clear label with black lettering or legibly written with indelible marker indicating panel and circuit.
  - a. Example: "Panel PL3-A2, Cir. #13"

I. Conductors (All Voltages):

1. Feeder wires shall be identified with voltage, phase and destination at each access point. Each phase conductor shall be identified with colored insulation its entire length
2. For branch circuit conductors, wiring shall be identified with wrap-on wire markers. Wire markers shall be T & B #WBC or approved equal, vinyl cloth with factory painted letters and numbers. Number shall indicate associated terminal in starter, panel board, etc.
3. All transformers, secondary switchgear, feeders, bus ducts, power sub-feeds to motors, etc., shall be completely phased out as to sequence and rotation and so labeled.
4. Phase sequence shall be N-A-B-C, proceeding in direction of left to right, front to back, top to bottom. All phases and neutral shall be identified with 1" Brady wrap-on wire markers.
5. Identify conductors of different systems at each junction box; pull box, and termination with tags as approved by Owner's Representative.
6. Where two or more neutrals are included in same conduit, at each panel, junction box, etc. the proper neutral wire shall be permanently and effectively identified with its branch circuit conductor(s) taped together and labeled with circuit number(s).
7. Each feeder and branch phase conductor shall have colored insulation that runs its full length and corresponds to the phase the wire will connect to. I.e. black red and blue. Colored phase tape is allowed in lieu of colored insulation for conductor sizes number 8 and larger.

J. Arc Flash Labels

1. Provide Arc Flash Study compliant with NFPA 70E on all electrical distribution equipment on new building and major renovation projects. Consultant should refer to BSU's guidelines on Arch Flash Analysis and Coordination Study for additional information and requirements.