	Title: YALE OFFICE OF FACILITIES PROCEDURE MANUAL Chapter: 01 - Yale Design Standard Division: Electrical Standards	Section: 26 05 53 Identification of Electrical Systems
		Date: 8/1/17
		Author: Office of Facilities
CC: Project Folder		

Date	Description of Change	Pages / Sections Modified	ID
8/1/17	Updated Section on Materials	2>3 - D. #6 added, prev #6 is now #7.	SO
6/15/16	Updated section number, and removed references to other sections.	-	mgl44
10/17/14	Add fourth dot point under Materials	12 – 16075, D. #4 (Electrical Identification; Materials)	JC

## A. Summary

This section contains design criteria for electrical and wiring identification systems.

## B. System Design and Performance Requirements


1. Ensure that identification systems are compatible with existing systems, provide for future additions to system, and are consistent throughout the project.
2. On construction documents, indicate identification systems and designations for all equipment and wiring.
3. On identifying plates, indicate unit designation or load served, as applicable, and other information not readily apparent, which might be required by service personnel, particularly with regard to emergency conditions.
4. Ensure that color-coding for power and lighting circuits is in accordance with Conductors and Cable.
5. For systems such as fire alarm, intrusion detection, access control, intercom, public address, television, and audio/visual, ensure that the color-coding of wiring is in accordance with Yale University and industry or manufacturers' standards. In instances where these standards conflict, Yale University standards take precedence.
6. In accordance with Section Panelboards, follow a specific methodology for panelboard designations. Show the designation on every panel schedule on the panel door and in the construction document.

## C. Manufacturers


Any product that meets the materials requirements is acceptable.

## D. Materials

1. For equipment identification plates, use:

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- Laminated phenolic resin
  - Black with a white core (unless specific design conditions require an alternate color scheme)
  - Engraved lettering
  - Plates shall be screwed on with stainless steel screws. Adhesive tape is not acceptable.
2. For branch circuit wiring and circuit cable identification markers for systems such as fire alarm and intrusion detection, use:
    - Pre-printed plastic
    - Black-on-white background
    - Pressure-sensitive adhesive
  3. For identification markers for such components as feeders, switchboard buses, and transformer terminals, use:
    - Pre-printed vinyl cloth
    - Black-on-yellow background
    - One-inch lettering (minimum)
    - Pressure-sensitive adhesive
  4. For all cables in manholes and feeding main services into buildings, all phase conductors shall be tagged with the feeder identification. The tags shall be as follows:
    - 1-1/2" Tech Products tags
    - Black lettering with yellow background
    - Identify all phase conductors in manholes and sub feeders to buildings
    - Each phase conductor shall be tagged with the feeder designation, its source and designation, and its phase. (example: C1-A -for phase A of feeder C-1)
  5. Control panels for sump pumps and other control systems use:
    - Vinyl sleeves with typed indelible ink for all control wires
    - All devices in panel to have identification plates for components using laminated phenolic resin nameplates (see #1 above)
  6. For identification markers for branch circuit receptacles use:
    - pre-printed plastic

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- black lettering on white background,
  - pressure- sensitive adhesive.
  - show panel number, which is feeding receptacle, and circuit number.
7. Building Automation Systems shall have identification in panel for the followings:
- All controller numbers, I/O tag, address
  - All control and signal cable contain the controller number I/O tag number including the address
  - The control and signal cables shall be tagged at both ends per Section HVAC Instrumentation and Controls

## E. Installation Guidelines

1. Provide all equipment, including switchboards, panelboards, transformers, safety switches, and motor controllers with identification plates secured with stainless steel screws.
2. Neatly type directories for equipment controlling multiple circuits (panelboards, fire alarm control panels, intrusion detection control panels), and mount them on the inside of the panel front cover. Ensure that circuit numbers marked in the field match the circuit numbering contained in the construction documents, so that future references to system wiring can be obtained easily.
3. Identify branch circuit numbering at the panelboard. Identify wiring for other systems, such as fire alarm and intrusion detection, at all terminations and connections.
4. When required by individual standards, such as fire alarm systems and energy management and control systems standards, paint conduit and boxes to identify the system contained within. Painting is described in Division 9, Finishes standards.

**“END OF SECTION”**