



DIVISION 10 43 13

AUTOMATIC EXTERNAL DEFIBRILLATOR CABINET STANDARD

PART 1 GENERAL

Division 10 43 13 automatic external defibrillator (AED) cabinet specification standard to be followed when adding AEDs and their respective cabinets to a Harvard Project. Whereas AEDs are only required by Massachusetts laws in certain facilities, Harvard University promotes equipping its buildings with AEDs, to increase survival rate for cardiac emergencies, in targeted public areas where large number of people transit or gather such as Classroom (CLS), Commercial - Office and Retail (COM), Dry Lab/Studio (DLB), Undergraduate Dorm (DOR), Healthcare (HLT), Study/Library (LIB), General, Assembly, Museum (MUS), Offices, Institutional (OFC), Residential - Graduate/Affiliate (RES), Research Office Building/Lab (ROB), among others. AEDs are required in all Childcare Centers and Athletic/Special (ATHs).

Harvard presently requires use of ZOLL AED Plus or ZOLL AED3 models. Harvard University Public Access Defibrillator, AED, Program (HPADP) is based on [the American Heart Association's \(AHA\) Public Access to Defibrillation \(PAD\) guidelines](#) which recommends:

- Installing AEDs in locations where they can be reached and a shock delivered to a victim within three to five minutes after the person collapses.
- AEDs should be readily visible.
- AEDs should always be accessible.

These recommendations should be taken into consideration when selecting AED locations.

Refer to the HPADP summary for additional information regarding AEDs.



Another emergency response equipment applicable to this document are Stop the Bleed kits which are commonly installed inside AED cabinets. Therefore, AED cabinets require appropriate labeling posted on each cabinet. More information regarding Stop the Bleed Kits can be found in the HPADP.

1.1 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this section of the specifications.

1.2 DESCRIPTION OF WORK

A. Work included: Provide labor, materials, and equipment necessary to complete the work of this section, including but not limited to the following:

A. AUTOMATED EXTERNAL DEFIBRILLATOR CABINETS

B. Sustainable design intent: Refer to SECTION 018113 - SUSTAINABLE DESIGN REQUIREMENTS.

A. LEED, SECTION 018114 - SUSTAINABLE DESIGN REQUIREMENTS - LBC CORE, AND HARVARD HEALTHIER MATERIALS ACADEMY for certification level and certification requirements.

C. Related work: The following items are not included in this section and are specified under the designated sections:

A. SECTION 061000 - ROUGH CARPENTRY for wood blocking.

B. DIVISION 26 - ELECTRICAL for electrical service and connections for motor operators, controls, limit switches, and other powered devices and for system disconnect switches for motorized shade operation.

C. [DIVISION 28 - ELECTRONIC SAFETY AND SECURITY](#) (highly recommended to connect AED cabinets to the building alarm system and to Harvard University Police Department (HUPD)).



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1. Retain cabinet door alarm isolated from the building systems alarm and to HUPD. Door sound alarm is to be triggered when door is opened but it should not alert HUPD.
2. Add a plunger alarm switch to the bottom of the cabinet where AED will sit. Alarm to the building systems and to HUPD (alarm to be triggered when AED is lifted).

1.3 REFERENCES

A. Reference standards:

A. American with Disabilities Act (ADA)

1. 2010 ADA Standards for Accessible Design

B. American Heart Association (AHA)

1. AHA Guidelines for Public Access Defibrillator Program

C. American Society for Testing and Materials (ASTM) International

1. ASTM E814-11a, Standard Test Method for Fire Tests of Penetration Firestop Systems

D. International Code Council (ICC)

1. International Building Code (IBC)

E. Intertek Testing Services/Warnock-Hersey International (ITS/WHI)

1. National Fire Protection Association (NFPA)

F. NFPA 70, National Electrical Code

G. Underwriters Laboratories, Inc. (UL)

1.4 COORDINATION

- #### A. Owner to provide AEDs for the project:



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Approved AEDs at Harvard University are either:

- A. ZOLL AED Plus
- B. ZOLL AED3 (requires strong Wi-Fi Harvard secured network connection in range)
- B. Coordinate fire-rating of AED cabinets with fire-rated partitions to ensure partition fire-rating is maintained. Ensure to select a fire rated cabinet where required.

1.5 SUBMITTALS

A. Product data: For each type of product.

A. Sustainable design documentation: Submit a completed SECTION 018116 – PRODUCT DATA SUBMITTAL FORM for each product.

B. LBC core submittals:

A. Include manufacturing location and ingredients list.

B. For installation materials and accessories: Submit a complete list of unspecified products that are nonetheless required for installation of work of this section, not more than 14 days after Notice of Award.

C. Shop drawings:

A. Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

B. Show locations and details for installing electrical wiring, alarm and monitoring components, and switches.

C. Wiring diagrams: Power, alarm, and monitoring wiring.

1.6 QUALITY ASSURANCE



- A.** Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B.** Source limitations: Obtain AED cabinets through one source from a single manufacturer.
- C.** Fire-rated AED cabinets: Listed and labeled to comply with requirements of ASTM E 814 for fire-resistance rating of walls where they are installed.
- D.** Electrical components, devices, and accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency and marked for intended location and application.

1.7 DELIVERY, STORAGE, AND HANDLING

- A.** Deliver, store, and protect defibrillator cabinets and related materials using means and methods that will prevent damage, deterioration, or loss.
- B.** Deliver components in manufacturer's original packaging, properly labeled for identification.

1.8 DOCUMENTATION

- A.** Documentation to be provided to EH&S:
 - A.** List all AED locations/blueprints
 - B.** Confirm local buzzer alarm is working (battery has been installed/activates when door is opened, and turns off when door is closed)
 - C.** Confirm door latches as it is intended
 - D.** Confirm AED cabinet alarms to the building alarm system and to HUPD

PART 2 PRODUCTS



While selecting an AED cabinet, compliance with NFPA and ADA is a priority, therefore, a flat trim recessed cabinet (fired rated if required) is the first choice. However, where a flat-trim recessed cabinet cannot be installed, a standard surface mount cabinet can be installed if it meets ADA (recessed wall, alcove, etc.). J.L. cabinets listed in 2.1 2.1 DEFIBRILLATOR CABINET MANUFACTURERS will accommodate the AED Plus or the AED3 models.

Signage: Stop the Bleed kits are to be installed inside the AED cabinets therefore a decal for the cabinet should be added.

2.1 DEFIBRILLATOR CABINET MANUFACTURERS

A. Acceptable manufacturers:

A. J.L. Industries, Inc., a division of Activar Construction Products Group

9702 Newton Av S, Bloomington, MN 55431

Phone: 800-554-6077; 952-835-6850; Fax: 952-835-2218

www.activarcpg.com; sales@activarcpg.com

B. ZOLL Medical Corporation, an Asahi Kasei Group Company

269 Mill Rd #269, Chelmsford, MA 01824

Phone: 978-421-9440 (direct); 800-348-9011 (toll-free US); Fax: 978-421-0015

esales@zoll.com

B. Substitutions: Manufacturers seeking approval of their products are required to comply with the owner's Instructions to bidders, generally contained in the project manual.

2.2 JL 1400 LIFESTART SERIES AED CABINETS

A. Stainless steel cabinet flat trim and door: 1400 Lifestart™ series, model 1435.

A. Cabinet style: Recessed (3/8" flat trim)

B. Stainless



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- C. On/off key switch on the exterior of the cabinet
 - D. Alarm: 85 DB Commander (audible) alarm standard (9V battery operated)
 - E. Tub I.D.: 14" x 14" x 6 3/4"
 - F. Frame O.D.: 17 3/8" x 17 3/8"
 - G. Rough opening: 15-1/4" x 15-1/4" x 6-1/2"
 - H. Door style:
 - 1. F17, full tempered glazing; pull and AED decal (4-1/2" x 1")
 - 2. Custom graphics for AED ["Stop The Bleed" decal](#)
- B. Fired rated stainless steel cabinet flat trim: 1400 FIRE-FX2 LIFESTART, model 1435FX2.**
- A. Cabinet style: Recessed (3/8" flat trim)
 - B. On/off key switch on the exterior of the cabinet
 - C. Alarm: 85 DB Commander (audible) alarm standard (9V battery operated)
 - D. Tub I.D.: 14" x 14" x 6 3/4"
 - E. Frame O.D.: 17 3/8" x 17 3/8"
 - F. Rough opening: 16-5/16" x 16-5/16" x 7-11/16"
 - G. Door style:
 - 1. Stainless steel door
 - 2. F17, full tempered glazing; pull and AED decal (4-1/2" x 1")
 - 3. Custom graphics for AED ["Stop The Bleed" decal](#)
- C. Stainless steel cabinet surface mounted. Model 1439 rolled edge.**



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- A. Cabinet style: Surface mounted
- B. On/off key switch on the exterior of the cabinet
- C. Alarm: 85 DB Commander (audible) alarm standard (9V battery operated)
- D. Tub I.D.: 17-3/16" x 17-3/16" x 7"
- E. Frame O.D.: 17 3/8" x 17 3/8"
- F. Door style:
 - 1. Stainless steel door
 - 2. F17, full tempered glazing; pull and AED decal (4-1/2" x 1")
 - 3. Custom graphics for AED ["Stop The Bleed" decal](#)

2.3 AED PLASTIC WALL SIGN

- A. AED tent wall sign 14TS
 - A. .020 white styrene
 - B. 7" x 6" x 4.5"

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine walls and partitions for suitable framing depth and blocking where recessed and semi-recessed cabinets will be installed and blocking where surface mounted cabinets will be installed.
 - A. Notify the architect, in writing of conditions detrimental to detrimental to proper and timely completion of the installation.
 - B. Proceed with installation only after unsatisfactory conditions have been corrected.



3.2 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

B. Install cabinets in locations and at mounting heights indicated, ADA, at heights to comply with applicable regulations of governing authorities. Complying with ADA standards.

A. Prepare recesses in walls for defibrillator cabinets as required by type and size of cabinet and style of trim and to comply with manufacturer's instructions.

- 1.** Securely fasten cabinets to structure, square and plumb, to comply with manufacturer's instructions.
- 2.** Maintain fire ratings where cabinets are recessed into fire-rated wall systems.
- 3.** Install battery (9V) to the cabinet's door alarm,
- 4.** Verify alarm is in proper working order and coordinate any additional security connections required with owner's security personnel.
- 5.** Cabinet signage: Install AED sign above cabinet.

3.3 ADJUSTING AND CLEANING

A. Remove temporary protective coverings and strippable films, if any, as defibrillator cabinets are installed unless otherwise indicated in manufacturer's written installation instructions.

B. Adjust cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.

C. On completion of cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.



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- D. Touch up marred finishes or replace cabinets that cannot be restored to factory finished appearance. Use only materials and procedures recommended or furnished by cabinet manufacturer.
- E. Replace cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION