

HOUSTON FIRE DEPARTMENT LIFE SAFETY BUREAU (LSB)



LSB STANDARD 05, REV. 03 KEY BOXES

INCLUDES ELECTRIC FENCE and VOLUNTARY KNOX BOX REQUIREMENTS

SUPERSEDES: LSB Standard 05, Rev. 02, dated 12/31/10

NOTE: A vertical bar in the left-hand column delineates changes to the previous version.

Effective Date: 5/01/2012



LSB standards are established in accordance with provisions of the City of Houston Fire Code. They are subject to the administrative sections covering alternative materials and methods, modifications and the Board of Appeals.

TABLE OF CONTENTS

SECTION 5.1 --- GENERAL	1
5.1.1 Scope	1
5.1.2 Purpose	1
SECTION 5.2 --- DEFINITIONS	1
5.2.1 Falcon Mortise Cylinder	2
5.2.2 Falcon Padlock	2
5.2.3 Key Box / " 9-1-1" Key Box	2
SECTION 5.3 --- GENERAL REQUIREMENTS	2
5.3.1 Where required	2
5.3.1.1 Access control gates and barriers	2
5.3.1.2 High-rise Buildings	2
5.3.2 Box Construction	2
5.3.3 Location	3
5.3.4 Locking Device	3
5.3.5 Approval	3
SECTION 5.4 --- HIGH VOLTAGE ELECTRIC FENCES	3
5.4.1 High Voltage Key Box Construction and Maintenance	3
5.4.2 High Voltage Key Box Location	4
5.4.3 High Voltage Fence Registration	4
SECTION 5.6 --- Permit	4
5.6.1 Required	4
APPENDIX A	5
KEY BOXES	5
Figure No. 1 -Typical Key Box / "9-1-1" Box (Open, with padlock removed)	5
Figure No. 2 - Typical Key Box / "9-1-1" (Box closed with padlock)	6
REFERENCES	8

LSB STANDARD 05, rev. 03

KEY BOXES

SECTION 5.1 --- GENERAL

5.1.1 Scope

This standard provides a method of providing for and maintaining adequate and unobstructed emergency access for Fire Department apparatus and personnel to buildings, structures, hazardous occupancies or other premises within the City of Houston as may be required by the Fire Marshal, Chief of the Houston Fire Department and the Houston *Fire Code*.

5.1.2 Purpose.

The purpose shall be to provide clarification of requirements and guidance to person(s) charged with providing and maintaining required fire department access to premises in compliance with the *Fire Code*. The provisions of this standard are general in nature and are not intended to override the specific requirements of City of Houston *Code of Ordinances* or the *Fire Code*.

This standard is subject to periodic review and updates, to accommodate changes in local need or requirements, changes in nationally recognized standards, in related technology or where required by state or federal regulations.

Notice: Where references in this Standard are made to products manufactured by “Falcon Locks” and related 9-1-1 boxes, certain products manufactured by the “Knox Company” have been approved for voluntary use in lieu of “Falcon Lock” products and the 9-1-1 boxes.

Approved items manufactured by the “Knox Company” may be referenced online at www.knoxbox.com.

The following is a list of acceptable “Knox Company” products that are allowed to be used inside the City of Houston City Limits.

- Elevator Box
- Electrical Shutdown Box
- Keyswitch
- Padlock
- FDC 2 ½” Locking Cap
- SecureCap
- Cabinets (1300 Series)
- 3200 Series Box, Single-Key Style, ONLY with the hinged lid.
- 4100 Series Box

The Fire Marshal’s final approval and a permit are required for the installation and use of any “Knox Company” or “Falcon Lock” product.

SECTION 5.2 --- DEFINITIONS

5.2.1 Falcon Mortise Cylinder.

An approved “9-1-1” mortise cylinder lock unit approved for use with “9-1-1” boxes and attainable only from certain gate companies or contractors. Only authorized emergency service personnel retain keys to these locks.

5.2.2 Falcon Padlock.

An approved “9-1-1” padlock applied to “9-1-1” boxes and attainable only from certain gate companies or contractors. Only authorized emergency service personnel retain keys to these padlocks.

5.2.3 Key Box / “ 9-1-1” Key Box.

A tamper proof box secured with a lock operable by an approved fire department key, or other approved means as provided for in Section 5.3.4 of this Standard, and having contents as required by applicable LSB Standards.

SECTION 5.3 -- GENERAL REQUIREMENTS

5.3.1 Where required.

When access to or within a structure or an area is unduly difficult because of secured openings or where immediate access is necessary for life-saving or fire fighting purposes, the Fire Marshal is authorized to require an approved key box or “9-1-1” key box to be installed in an accessible location. The key box shall be of a type approved by the Fire Marshal and shall contain all necessary keys to gain access. In addition to keys, boxes shall contain other items determined to be necessary by the Fire Marshal for the effective response of fire department personnel to an emergency at the premises.

5.3.1.1 Access control gates and barriers.

For Key Box / “9-1-1” Box use on access control gates and barriers, refer to LSB Standard 04, “Access Control Gates”.

5.3.1.2 High-rise Buildings.

A key box, used by the fire department to obtain building access, shall be installed on all high-rise buildings.

Exception:

1. The Fire Marshal may waive this requirement for buildings that have qualified, on-site personnel who are available at all times to provide immediate building access for the fire department.

5.3.2 Box Construction.

Key boxes shall be constructed of metal materials as to be weather resistive and of sufficient strength and thickness to deter forced entry. The box should be of size sufficient to contain all keys, swipe cards, and other required items as may be deemed necessary by the Fire Marshal (for minimum box dimensions see Appendix A). The front for the box shall be hinged and be designed so as can be secured by an approved mortise cylinder lock or designed with a pad-eye so as can be secured by an approved padlock.

Boxes shall be painted any color approved by the Fire Marshal except that the door of the box shall be painted bright red so as to be readily noticeable, and have the words **"FIRE DEPARTMENT"** or the number **"911"** painted in white letters not less than 1 inch in height (see Appendix A).

5.3.3 Location.

Key boxes shall be installed on the exterior of a structure or building, as near as practical to the main entrance door or designated emergency access door. Boxes should be located within 48 to 60 inches above the ground level and securely affixed to a wall, post or column so as not to be loose or movable. Boxes shall be positioned so as to be readily apparent upon approach to the door.

At locations where hazardous materials are stored in quantities requiring fire department permits and at warehouse locations, Key boxes shall be located at the main fire department access entrance to the facility, either at a guard shack or gate house, or similar location. Where no guard station or gate house is provided, then a weather resistant "9-1-1" box, large enough to contain all required Hazardous Materials Inventory Sheets, floor plans and access keys, shall be provided at a readily identifiable and accessible location that will not be endangered by fire in the facility.

5.3.4 Locking Device.

Key boxes may be locked with a Falcon Mortise Cylinder Lock, Falcon Padlocks, or a padlock of a design so as can be cut open with standard bolt cutters carried on emergency apparatus. No "shankless", short shank, nor super hardened locks will be allowed.

5.3.5 Approval.

Fire Department approval is required to install and maintain key boxes for access to or within such structures or properties as office buildings, residential buildings, nursing homes, hospitals, school buildings, industrial plants and facilities, hazardous materials storage buildings, large storage buildings, or other structures as the Fire Marshal may require. Approval shall be obtained through the permitting process prior to final installation of a key box or "9-1-1" key box.

SECTION 5.4 --- HIGH VOLTAGE ELECTRIC FENCES

5.4.1 High Voltage Key Box Construction and Maintenance.

Key boxes shall be constructed of metal materials that are weather resistive and of sufficient strength and thickness to deter forced entry. The front of the box shall be hinged and be designed so it can be secured by an approved mortise cylinder lock or designed with a pad-eye that can be secured by an approved padlock.

Boxes used for high-voltage fences shall be painted a bright "RED" color and have the words **"FIRE DEPARTMENT"**, or the numbers **"9-1-1"**, painted in at least 1-inch "WHITE" letters or numbers on the front of the box.. The front of the box shall also be labeled **"HIGH VOLTAGE KEY BOX"** in white letters at least 1-inch in height.

The box should be of size sufficient to contain red and green indicator lights, a "Mushroom" pushbutton no less than 1-1/2" in diameter and other required items as

may be deemed necessary by the Fire Marshal. The Indicator lights shall be readily visible and mounted on the interior of the box. The red light shall be labeled "Energized" and the green light shall be labeled "Deactivated" in letters that are readily visible. The Mushroom pushbutton shall be labeled "Push to Deactivate Fence". Deactivating the fence shall be accomplished by "**PUSHING**" the mushroom pushbutton. Once the mushroom button is pushed, it shall immediately activate a relay system, deactivating the fence and shall cause the red light to turn off and the green light to illuminate. Key Box and all components shall be maintained in proper working condition at all times.

5.4.2 High Voltage Key Box Location.

Key Boxes shall be located at the main fire department entrance as approved by the Fire Marshal and shall be outside of the perimeter fence or wall. The 911 box shall be mounted on a post or wall and located within 48 to 60 inches above ground level and securely affixed so as not to be loose or moveable. At no time shall the 911 box be in contact with any part of the high voltage fence or perimeter fence.

5.4.3 High Voltage Fence Registration.

Prior to installing the High Voltage Fence, the responsible party shall submit a completed, "*Houston Fire Department Electric Fence Registration Form*" to the code official. Any changes to the original fence design and construction or re-location of the **9-1-1 HIGH VOLTAGE KEY BOX** shall require submittal of a new registration form indicating what changes were made.

SECTION 5.6 --- Permit

5.6.1 Required

A permit is required to install and maintain a Key Box or "9-1-1" Key Box. This permit shall be renewed annually.

Permit Office contact information for Fire Prevention Permits is as follows:

The Houston Permitting Center

1002 Washington Avenue

Houston, Texas 77007

Hours of operation: 8:00 a.m. to 3:30 p.m. Central Time

Monday through Friday

Office phone (832)394-8811

To Email Customer Service Questions: hfd.permitoffice@houstontx.gov

Link to City Wide Fee Schedule: www.houstoncityfees.org

APPENDIX A

KEY BOXES

Figure No. 1 -Typical Key Box / "9-1-1" Box (Open, with padlock removed)

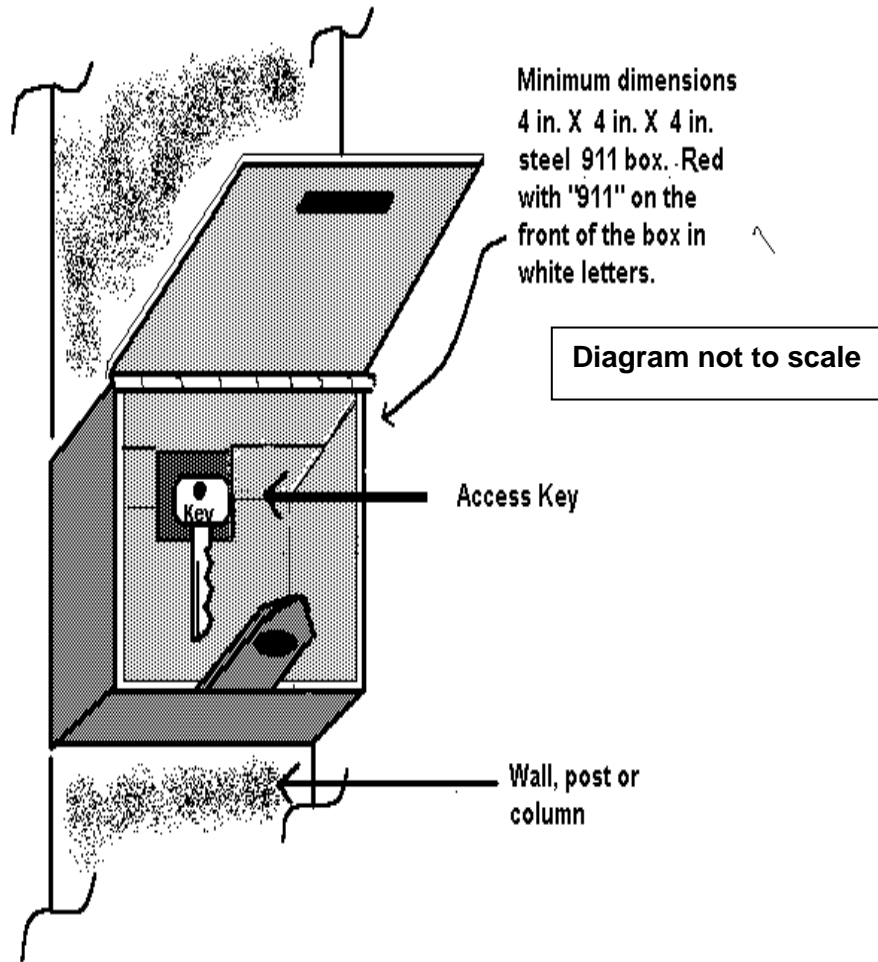


Figure No. 2 - Typical Key Box / "9-1-1" (Box closed with padlock)

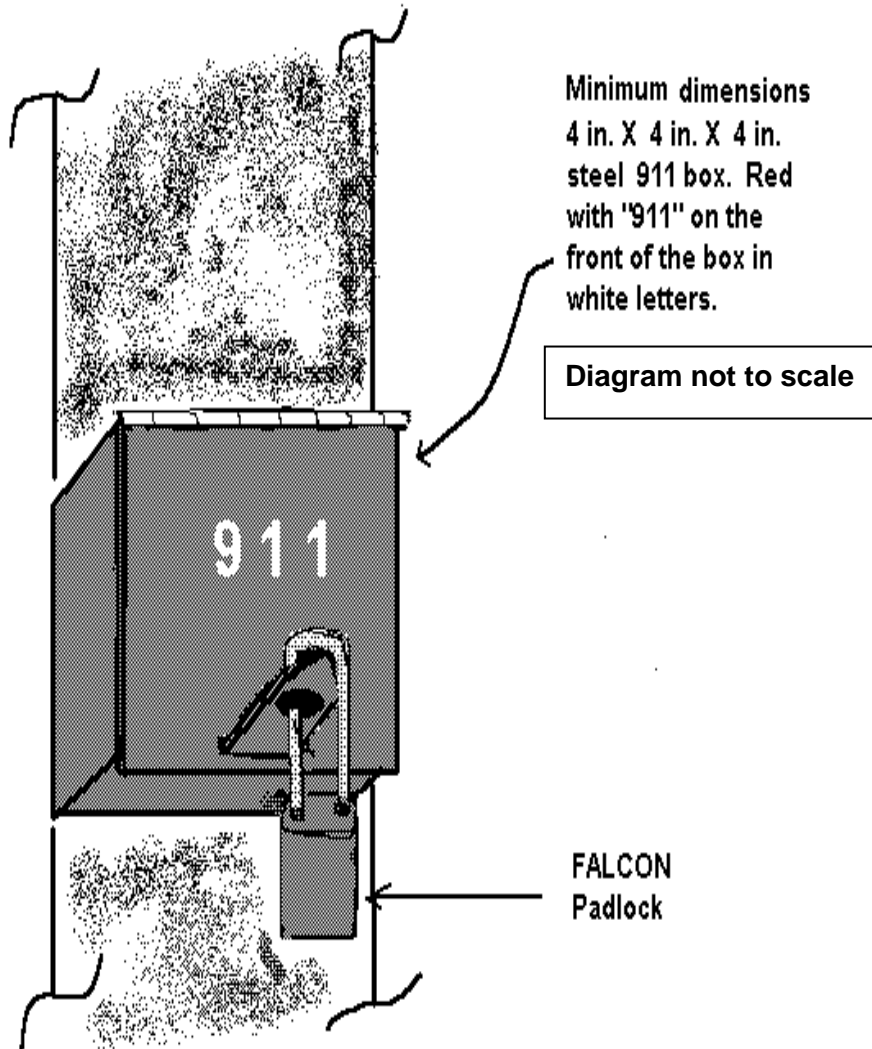
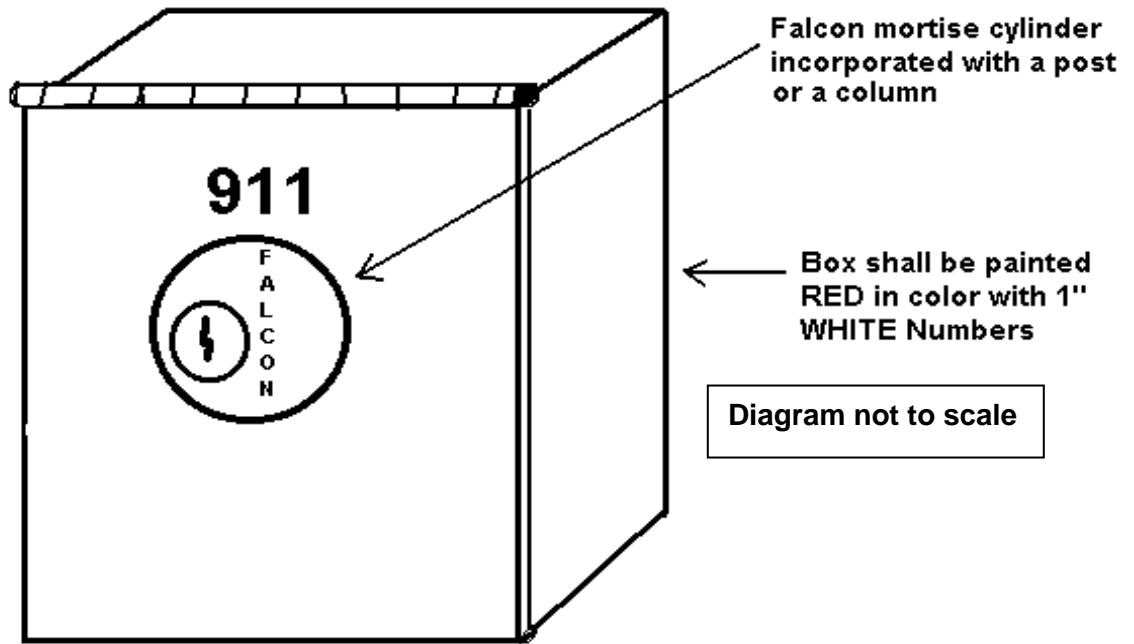


Figure No. 3 – Key Box / “9-1-1” Box with *FALCON* Mortise Cylinder



REFERENCES

1. City of Houston *Fire Code*, International Fire Code, 2006 edition, as amended.
2. Life Safety Bureau (LSB) Standard 03, "Fire Department Access".
3. Life Safety Bureau (LSB) Standard 04, "Access Control Gates".
4. Life Safety Bureau (LSB) Standard 06, "Fire Depository Boxes".