

## WINDOW GRATE EMERGENCY RELEASE DEVICES

Please refer to 12 FAH-6 residential security standards where it states: “for grilled, occupied bedrooms below the fourth floor, a secondary means of escape must be present, in accordance with fire and safety regulations.”

In instances where the only secondary escape is through the window, window sashes and window bars should be operable, that is equipped so that they can be opened from the inside. Operation of the window and grill gates should be simple and checked frequently. Model fire codes specify that grill gate (and window) operation should be without special knowledge, tools or keys; and the force to operate should be minimal.

The department has undertaken a product search to identify window grill release devices, as a successor to the Dual Bar Weg 3000, which is out of production. Preliminary research points to three courses of action:

1. Fabrication of a release device
2. Procurement of a commercial device
3. Modifying grilles to operate like a door

The fundamental to each approach is to equip grilles with hinges and to install a latching device that is easy to operate from the protected side, while protected from external manipulation.

Fabrication of a release device may follow the model described at page 35 of the DS residential protective devices catalog or engaging a local firm to fabricate a release device.

Some commercial devices have been identified to date, and there will likely be more found on the market. However, while most devices might have some local fire department proponents we need to point out that there is no general certification on the national, federal, or state level. With that in mind it is imperative that post carefully evaluate the following vendors.

### **Sure Exit Security Bar Release by Exit Technologies**

Contact info: fax - (785) 536-4377, website - [www.exitech.com](http://www.exitech.com), for product description current prices. This device is new to the market and costs approximately \$125.00. The release mechanism requires only about one pound pressure to depress and activate the release, which is mounted inside the room beyond outside, through the window reach. This device has an optional thermo-bulb release costing approximately \$30.00.

### **Coltrin Bullet-Foot Fire Release marketed by Reed Brothers Security**

Contact info: fax - (510) 652-7081, website - [www.reedbrothers.com](http://www.reedbrothers.com), for product description and current prices, currently approximately \$95.00. This device is marketed in California and has been reportedly accepted by area fire departments. The device features two external latches which are activated by cable connected to a pedal mounted on the interior below the window, beyond exterior, through the window reach.

**Bay Area Supply Company,**

Markets the Coltrin or similar release device, contact info: fax - (510) 758-6325, tel - (510) 758-5219, e-mail - [bascoexp@compuserve.com](mailto:bascoexp@compuserve.com), address - 2649 Tamalpais Drive, El Pinole CA 94564-1249, for product description and current prices.

**Jansen Ornamental Iron Supply**

Markets devices similar to the Coltrin, described above, contact info: fax - (626) 444-3847, tel - (800) 423-4494, for product description and current prices.

**Safe Fire Detection**

Proposes to market the safe escape emergency release device, contact info: fax (704) 821-4327, website - [www.safefiredetection.com](http://www.safefiredetection.com), for product description and current prices. The safe escape is engineered: with special attention to corrosion resistance and kink resistance sheathing for the control cable. The hand pull release lever is mounted at the interior, out of reach from the outside. The release lever is activated with eight pounds pull. The apparent starting price for this device is \$595.00.

*New York City Standard* release devices are characterized by protecting plating around door handles. The plate apparently guards against activation of the handle from the outside. A few vendors who market full window emergency egress gates are:

**Vigilante Security Access Control Products**, fax - (718) 893-7168, website - [www.vigilock.com](http://www.vigilock.com).

**TS Gates and Guards** (for Manhattan Protection Grate), fax - (973) 523-7416, tel - (201) 523-7323, PO BOX 976, Paterson NJ 07533

**J. Kaufman Iron Works**, tel - (212) 991-5400, 1685 Boone Ave, Bronx NY 10460

To check out other companies go to [www.clearstar.com](http://www.clearstar.com), this is a website “for Professional Locksmiths and Safe Techs.”

Finally, local modification of a grill gate to mount a strong lockset (door handle) with protective plate to place the handle beyond reach from the attack side is an option that a skilled metal worker may be able to fabricate.

# RESIDENTIAL PROTECTIVE DEVICES CATALOG

## Security Grilles

Grilles provide physical protection against forced entry into a residence through windows, glass doors or other opening. There is no single standard grille since the local threat, opening size, aesthetics and location all influence its design. For these reasons, it is generally not possible to find commercially available, off-the-shelf grilles that can be ordered and installed. Local fabrication of grilles is strongly recommended.

In many countries, grilles are used extensively on both commercial and residential buildings, both for security and for aesthetics. In those countries, there should be many companies which can measure, design, make an install grilles to meet the post's requirements. Even in countries where grilles are not used extensively, it is likely that a local source can be found. However, if grilles are not available locally or within the region, grilles can be ordered from the United States or Europe (through Regional Procurement Office, Frankfurt.)

When grilles are "mail ordered," precise width, height, mounting dimensions and type of mounting (welded in, grouted in or bolted on) must be provided. An accurate sketch of a typical grille will help ensure that the post gets what it wants.

Local crime or other threat conditions can vary widely, but it is generally recommended that better quality locally made grilles be selected. Grillwork designs also vary widely, however, the space between bars should normally not exceed 96 square inches. It is best that bar intersections be welded and bars be embedded at least three inches into the wall/frame on all sides. Bars should also be grouted into the wall/frame and clip anchors should be used, or the bar ends may be bent.

Remember that grilles which keep intruders out also keep occupants in. This can have catastrophic consequences in a fire or other emergency. Therefore, when grilles are installed on a residence, it is imperative that two conditions be met:

- Each fully grilled, occupied bedroom shall have a secondary exit in case of fire or other emergency.
- The dwelling must have an early warning fire/smoke detection and alarm system (not funded by DS).

## EMERGENCY ESCAPES FROM FULLY GRILLED, OCCUPIED BEDROOMS

In collaboration with A/FBO/OPS/FIR (Fire Safety Officer), the following policy guidance has been formulated:

For fire and life safety purpose, every room below the fourth floor normally used for sleeping must have, in addition to the regular exit, at least one alternate exit. This exit shall not require the use of a key, tool or special knowledge.

For rooms below the fourth floor which are normally used for sleeping and are **not** grilled, any windows with a simple latching device should suffice, providing it meets the following minimum size standards: 5.7 feet square minimum net clear opening, 24 inches minimum clear height, 20 inches minimum clear width, finished sill maximum of 44 inches from floor.

For other grilled sleeping rooms below the fourth floor, the following are acceptable alternate exits:

A full-size exterior door leading to a patio, balcony, etc.—providing the door can be opened easily without a key, tool or special knowledge (for security reasons, the door knob/bolt handle must be at least 40” from windows or other openings).

A smaller door, for emergency exit only, installed in an exterior wall. It must meet minimum size standards mentioned above. Knob/bolt must be easy to operate and far enough from the floor—about 4 feet—so that door cannot be opened by young children.

A Dual Bar WEG-3000 emergency escape grille gate (EEGG). See illustration following this section. GSA price is \$221.55 for shipping weight roughly 100 pounds. Can also be ordered without grillwork inside the frame for \$180.00, shipping weight 60 pounds. Ordering the latter style enables posts to fill in the open area with grillwork matching the pattern of surrounding fixed grillwork.

A Dual Bar ERD-3000 (emergency release device) and two stainless steel hinges bolted or welded to existing and/or locally made grille gates. Gates must equal/exceed mentioned above. GSA cost of ERD and two hinges is \$135, shipping weight is 11 pounds per kit. ERD is identical to device used on the WEG-3000 and consists of activator, six feet cable, lock, lock-housing and latch bolt. Additional hinges are \$58.05/pair. Roughly, one hinge is needed for each 1.5 feet of gate height – e.g., three hinges needed for five feet high grille gate.

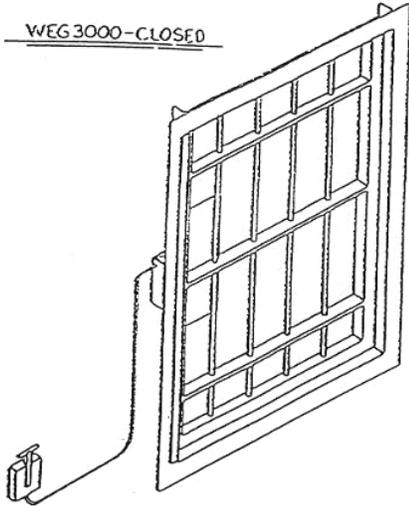
A locally made EEGG secured by a horizontal sliding deadbolt at least 4 inches long. It must equal or exceed size given above. This option may not be practicable for outside grilles. Since designs and construction standards vary, prior approval of DS/FPD/RES and A/FBO/OPS/FIR must be obtained for locally made EEGGs (see illustration which follows this section for sample.)

An interconnecting door to an adjacent room/area having an approved door or EEGG. (The interconnecting door shall not have any locks. However, it may have a simple latching device on the side not containing the alternate escape.)

**Note:** There is no mention of locally made EEGGs requiring padlocks. Experience has proven that when occupants are not able to open security grillwork without the use of keys, tools or special knowledge, then escape is often not possible.

# RESIDENTIAL PROTECTIVE DEVICES CATALOG

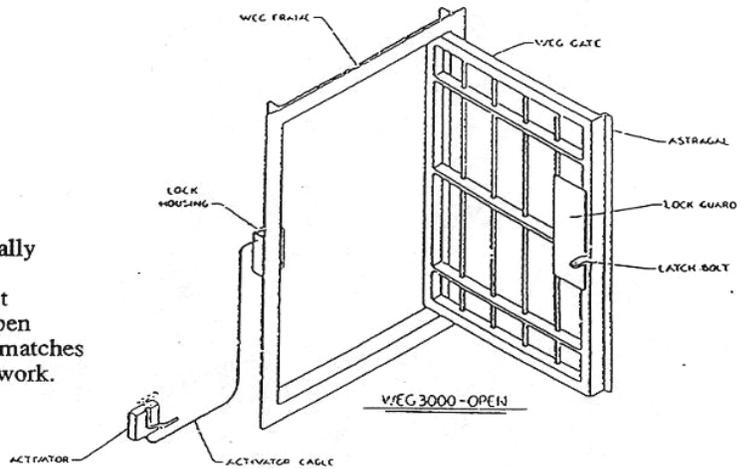
WEG 3000-CLOSED



## Specifications

Dimensions:      Opening - 24" W x 35" H  
                         Overall - 28" W x 39" H  
Vertical Bars:      5/8" D - 4 3/8" CTR-CTR  
Horizontals:      3/8" x 1-1/4" - 12" CTR-CTR

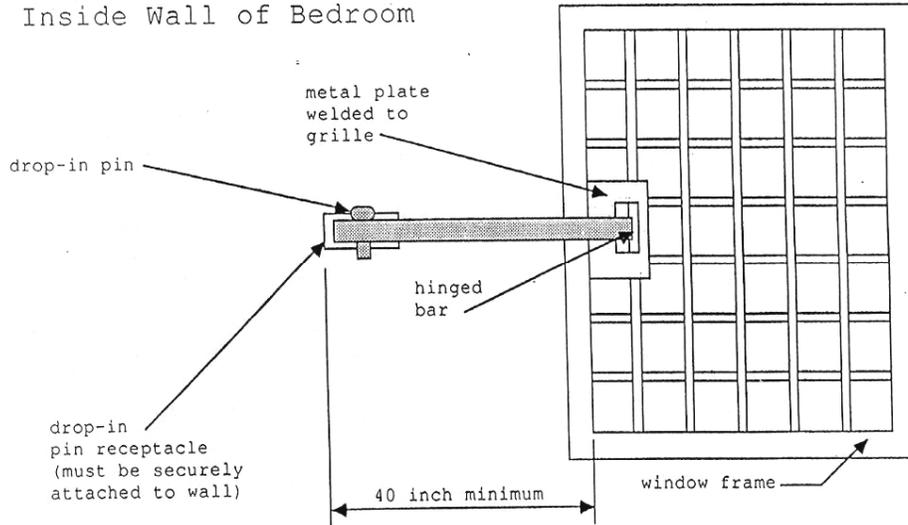
NOTE: This item is normally ordered without grillwork inside the frame since most users prefer to fill in the open area with grillwork which matches the surrounding fixed grillwork.



Enclose activator cable in conduit or conceal to prevent manipulation from outside

LOCALLY MADE HINGED GRILLE GATE  
(swings inward)

Inside Wall of Bedroom



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RESIDENTIAL PROTECTIVE DEVICES CATALOG

Dept. of State  
Residential Security  
Branch