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PROPERTY INSURANCE COMMITTEE
Prevention Specifications

Automated teller machines - protection guidelines

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(EFSAC endorsed)

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1. FOREWORD

1.1. This document has been written to help underwriters and surveyors to assess the risks involved in the use of Automated Teller Machines (ATM's) and provides guidance with regard to security measures which can be utilised to protect ATM's.

2. GENERAL INFORMATION

2.1. Automated Teller Machines (ATM's) are commonplace in banks and other financial institutions and in many other different and varied locations.

2.2. Numerous supermarkets and departmental stores have now installed ATM's; in some cases there are many machines in one location. Also many private firms have installed ATM's to provide their staff with on-site banking facilities.

2.3. There are many criminal attacks on ATM's involving hold-up, removal from the premises by force, or by attacking the ATM in the premises with safe-breaking equipment or explosives. In the majority of these attacks the criminal has been successful. Furthermore there is a very real risk to staff who load these machines, and work in the vicinity of these machines and the implications of Health and Safety legislation must not be overlooked.

2.4 The Authorities and Police are extremely concerned that attacks on ATM's are proliferating and the Insurance Industry must be fully aware of the risks it is writing.

2.5 These machines are now very sophisticated and some provide the capability of including some form of alarm protection and many accept money as well as dispensing it.

2.6 ATM's are available as through-the-wall (TTW) machines, lobby machines and teller assist machines. Through-the-wall machines are designed to be installed within a wall, either a building perimeter wall or an internal wall to a lobby to which the user has access.

Lobby machines are stand-alone machines intended to be anchored to the floor surface on which they stand and are normally sited within a building.

Teller assist machines are designed for use within premises during operational hours only.

2.7 Research has shown and evidence is contained in this document that, in many cases, the security protection provided is substantially below the security level normally required for the amounts at risk.

3 ATM SAFE STANDARDS

3.1 There is no European standard against which Automated Teller Machines can be evaluated.

3.2 There are a number of existing standards against which ATM Safes can be evaluated.

These standards comprise the following :

- American Underwriting Laboratories UL291 Level 1 and Level 2 Standards,
- French RMET15 and RMET30 levels, CS, C1, C2 levels
- Nordic Standard INSTA 612
- German RAL626/3 Standard

ATM safes which comply with these standards require different levels of resistance against hand tools, electric tools, and thermal tools. The INSTA Standard also requires resistance against explosive attack.

3.3 CEN have produced and published a standard EN 1143-1 which includes the performance testing of Automated Teller Machine safes. Consequently, in future, ATM producers in Europe should include a safe tested and certified to the appropriate part of EN 1143.

3.4 Many existing Automated Teller Machines incorporate a safe in accordance with the requirement of the American Underwriters Laboratories UL291 Standard Level 1. This requires that an ATM safe resists attack by common hand tools only. The standard also requires that the safe be constructed of 1» mild steel plate to body and door or of a material giving equivalent protection to 1» mild steel plate. Underwriters Laboratories have accepted that ½» high tensile steel plate will accord with this requirement and a number of ATM safes have been manufactured of such material.

This UL291 Level 1 Standard provides little protection against force attack such as wedging of the door or an attack on the door or body using angle grinders and no protection against explosive or attack by oxygen cutting equipment. UL291 provides a lower burglary resistance than the lowest grade defined in EN 1143-1 (January 97 version).

4. INTRUDER ALARM AND HOLD-UP ALARM SYSTEM

4.1 Whilst the security provided by the ATM safe is of the most importance, the security of an ATM will be improved by Intruder Alarm and Hold-Up alarm system. The system should be installed in accordance with relevant standards and codes of practice and be maintained under contract.

4.2 An Intruder Alarm and Hold-Up System can only provide a deterrent to an attack on an ATM system and assist in summoning a response by an appropriate authority (e.g. Police).

The deterrent value of an alarm system protecting a high theft risk against skilled and determined criminals is less than for a low theft risk. The speed and efficiency of the actual response to the activation is therefore of great importance. It follows that the higher the strength of the ATM safe the greater the value of the alarm system because a strong safe lengthens the time available for response.

4.3 Recommendations for the design of the alarm system are as follow:

4.3.1 Detection

a) The ATM to have attached to it detectors able to detect methods of attack likely to be employed against a safe by criminals such as drilling, ripping, percussion, explosives and all forms of cutting.

The detectors should be of a type declared by the manufacturer to be suitable for use with an ATM.

The detectors should be installed according to any recommendations or instructions supplied with them but in all cases:

- one to be attached to each door to the ATM safe,
- one to be attached to the ATM safe elsewhere than on the door (s).

b) Each door to the ATM safe should be fitted, in positions inaccessible from outside the ATM, with a means designed to give an alarm condition when the door, the lock or bolt(s) of the door are not in the secure position. An alarm condition should be given when the door(s) of the ATM safe is/are not closed and secured.

c) During any period that the premises containing an ATM are unattended, the normal approaches to the ATM should be protected in addition by movement detector(s) of the specification offering the best available sensitivity, reliability and resistance to interference (e.g. masking). It is essential that the system design takes account of the risk of false alarms, e.g. : from the activity of cleaners etc.

4.3.2 Hold-up triggering devices

a) One or more hold-up triggering device(s) should be sited inside and/or close to the ATM for use during loading/maintenance procedures. The device(s) should be located for ease of use and minimum risk to staff.

b) Alternatively or additionally, wire-free hold-up triggering device (s) should be carried by the person(s) supervising loading/maintenance procedures. In most cases these are to be preferred to fixed devices.

c) Additional devices are also recommended at strategic (e.g. : Teller / supervisor) positions within sight of the ATM.

d) Hold-up triggering devices may also be built into the control and indicating equipment and/or ancillary control equipment.

e) Hold-up triggering device(s) should not be located in an area to which the Public have access and because this might give rise to false alarms.

4.3.3 Control and Indicating Equipment

a) The control and indicating equipment to the alarm system protecting the ATM should be sited within the area protected by the system and not accessible to the public. Where possible a means of creating a hold-up alarm condition should be incorporated in the control and indicating equipment.

b) Care is needed that the protection to the ATM is active when required, ie : that it is not unset due, for example, to its being included in zones protecting other areas. Ideally all of the protection provided to the ATM should be on one zone of the system and the hold-up triggering devices on another.

c) ATM alarm signals should where possible be distinguished at the Remote Monitoring Centre from those of other parts of the installation and also distinguish between hold-up and intrusion.

4.3.4 Warning Devices

a) All local warning devices should be instantaneous. Where a delay is required, this to be for the minimum period acceptable to the appropriate authority.

b) Audible warning devices, such as bells or sirens, should not operate upon the activation of anti hold-up devices. Legislation requires this in some countries.

4.3.5 Notification

The higher the risk of theft from the ATM the higher the security integrity of the link between the ATM protection and the Remote Monitoring Centre should be.

5. ADDITIONAL SECURITY MEASURES

5.1. Whilst the security provided by the ATM safe is of the most importance, depending on their intended use, value of contents and location, consideration should be given to providing Automated Teller Machines with one or more of the following additional security measures.

a) Time/Time Delay Lock:
Lock providing time locking and/or time delay facilities will enhance the security of an ATM safe by providing a deterrent to hold-up.

b) Additional Anchoring:
Experience has shown that there is a need for additional anchoring of ATM's to the structure of the building, in addition to that provided by the manufacturer, when the ATM is sited in particularly vulnerable locations, e.g. : glass shop fronts.

When appropriate, it will be necessary to use anti-ram measures such as well-anchored bollards or proprietary posts.

c) Bank Note Invalidation
Money within the machine is stained by the dispersion of such as ink of dye rendering it difficult or use and thereby less attractive to thieves.

Activation of the system can be by various means including disturbance of the ATM in an attempt to remove it, forcible opening of the machine or removal of a cassette following activation of an alarm.

d) Closed Circuit Television : (CCTV)
Strategically sited cameras can provide continuous surveillance (locally or from a Remote Monitoring Centre) of the approaches to the ATM. They also provide a useful visual deterrent.

Recording equipment used in conjunction with the cameras can record events continuously or when activated by movement detectors or as required.

All national legislation concerning the use of CCTV should be observed.

e) ATM cladding
Reinforcement panels can be fitted to cover the door and one or more body sites of an ATM safe to increase resistance to physical attack. The panels also protect the existing locking system which can be enhanced by upgraded blotwork, strapwork and hinge protection.

5.2. Where protection has been provided by using additional security measures (a), (b) and/or (c) a useful deterrent is achieved if notices advertising their existence are prominently displayed. Such notices are considered essential in respect of Bank Note Invalidation Systems.

6. INSTALLATION AND SITING OF ATM'S

A. ATM's should be installed and anchored in accordance with the manufacturer's instructions.

B. An ATM which contains money at all times should ideally be installed within premises. Alternatively the ATM should be installed in an external perimeter brick, stone or masonry wall of premises when access to the ATM from outside the premises is required.

C. Installation within glazing in the perimeter of a building or in the open is not recommended due to the ease with which the entire ATM can be removed by criminals.

7. OPERATING PROCEDURES

7.1. Automated Teller Machines are particularly vulnerable to attack when unlocked and open and during the transit of money to and from the ATM. It is essential that an acceptable level of adequate security disciplines is provided during these periods and the following guidelines should be observed. Wherever possible the public should be excluded from the premises when these operations are in progress.

1. It is recommended that a professional cash carrying company be utilised to replenish the ATMs.

2. In the event of 1 above not be utilised, the undernoted guidelines should be followed :

   a) Whenever the ATM is required to be unlocked, this operation should beundertaken in a secure area segregated from and not capable of being observed by persons other than those undertaking this operation.

   b) The filling of cassettes should be undertaken in a secure area accessible only to authorised personnel.

   c) Filling cassettes and replenishment of the ATM should be undertaken by a minimum of 2 persons. On any other occasion when the ATM is required to be unlocked, a minimum of two persons should be in attendance. During cassette filling and replenishment of the ATM and on any other occasions when the ATM is required to be unlocked, one of the persons involved should undertake observation duties and should have access to a Personal Attack facility, preferably a wire-free hold-up triggering device.

   d) During the transit of money to or from the ATM, a level of security should be applied which is commensurate with the amount of the risk.

   e) During service or maintenance of the ATM, all cassettes should be removed and be held in a suitable Safe or Strongroom in a secure area.

   f) Locking of the ATM(s) and of the secure area should be under the control of authorised personnel and all keys should be removed from the premises outside operational hours.

7.2. Dependent upon the level of security offered by a teller machine money therein should be removed to an adequate safe or strong room outside the premises' operational hours.

7.3. Installation and shipping of ATM's

More and more stand-alone ATM's are installed off premises e.g. : in shopping areas and petrol stations. In most cases, these ATM units are placed in a secure kiosk, built from panels which are designed in accordance with EN 1143-1 for Strong rooms and Strong room doors in Grade I and higher.
The kiosk does not only safeguard the cash but also the cash-in transit staff.
The kiosk solution is also more and more applied for stand-alone ATM's inside buildings, like retail shops. They are especially designed to protect staff during the exchange of money containers and maintenance work. These kiosks take limited floor space, because they can be extended temporarily to host the staff during the time the ATM is serviced.