



Quick Topics

- General
- In This Section
- Basic Security
- Basic Security/CRT
- Access Control (ACE)
- Security Interface System
- Additional Options



Elevator Security

General

Several elevator security options are available for MCE Controllers.

In This Section

- Basic Security
- Basic Security with CRT
- Access Control for Elevators (ACE)
- Security Interface System
- Additional Security Options

Basic Security

Basic Security provides a means to prevent unauthorized registration of car calls. Basic Security allows access only to the floor(s) for which a person is authorized. Exiting from the building shall not be restricted. Basic Security is available on all MCE elevator car controllers, simplex, duplex and group.

The basic security system shall allow either unrestricted or restricted access to any floor or combination of floors controlled by the elevator security system. The floor security codes shall be programmable. The system shall be placed in the security mode by a single input to the microcomputer system, such as from a key switch, time clock, etc.

Basic Security with CRT

Basic Security with CRT provides a means to prevent unauthorized registration of car calls and/or hall calls. Basic Security with CRT allows access only to the floor(s) for which a person is authorized. Access to elevators from specific landings can also be restricted. Basic Security with CRT is available on all M3 Group Systems and most simplex and duplex systems (consult your MCE Sales Representative).

Basic Security with CRT shall allow either unrestricted or restricted access to any floor or combination of floors controlled by the elevator security system. The floor security codes shall be programmable. The system shall be placed in the security mode by a single input to the microcomputer system, such as from a key switch, display terminal or software timer table. The system shall allow the user to program car calls to be secured on a per floor basis. The user shall be able to program up to eight different configurations and the corresponding time schedule. While in security mode, all elevators shall park at the lobby in order to prevent unauthorized access to a floor where an elevator might otherwise park.

The security mode shall render all car call buttons inoperative, except those for floors that have unrestricted access. Anyone desiring to go to a restricted floor may enter the elevator from any floor by means of a hall call. A sequence of numbers must then be entered on the car operating panel by using the normal car call pushbuttons. If the sequence is correct, the desired call lamp shall light and the car shall proceed to that floor. If the sequence is incorrect, the call shall not register. The sequence may be reinitiated at any time.

The sequence shall begin with the destination floor button. That button shall begin to flash on/off after it has been pressed. The rest of the sequence shall consist of a series of up to a maximum of eight numbers. If a sequence is not recognized, the memory shall be cleared automatically and the person who entered the improper sequence shall be denied access.

Access Control for Elevators

“ACE” Access Control for Elevators is MCE's premier elevator security system. ACE offers the most sophisticated programming capability. ACE provides a wide range of options allowing building owners and managers the greatest flexibility of any elevator security system available today. ACE has passenger access codes which may be distributed to allow only authorized passengers access to building floors.

ACE has multiple security configurations including car call access on a per passenger and/or per floor basis. The sophisticated software of ACE also provides access control for car and hall calls.

ACE is available for IMC Performa, IMC-SCR and IMC-AC simplex car controllers and all M3 Group Systems. ACE is programmable through a machine room CRT terminal or an IBM compatible PC running Security Interface Software (SIS). For the availability of ACE on other controller types, consult your MCE Sales Representative.

System Access Control

The system shall provide access control, featuring comprehensive programming of the access level for the entire elevator call system. Each hall call, as well as each car call, shall be individually programmable for access.

When using access control, every floor can have its own unique access schedule which shall be completely independent of the access schedule for any other floor in the building. ACE shall also allow the programming of many other functions such as groups of calls by floor, levels of access, weekly schedules and so forth.

Levels of Access Control

Locked - Passengers in any elevator car serving a locked floor shall not be able to register car calls to that locked floor. Optionally, anyone in the elevator lobby on a locked floor shall not be able to register a hall call (up or down) to bring an elevator car to that locked floor. Any hall or car calls registered for a floor when it becomes locked shall immediately be canceled.

Unsecured - Passengers shall be able to access any unsecured floor from any car or hall call without restriction.

Secured - Only passengers with an authorized access code shall be able to register a car call to a secured floor.

Hall Call Control

Hall calls on each floor shall be set to either locked or unsecured. If a hall call for a particular floor, direction (up or down), side (front or rear) and for a particular hallway pushbutton riser (main or auxiliary) is set to locked, then no one shall be able to register that hall call.

If a hall call is set to unsecured, then the hall call shall be registered without restriction.

Car Call Control

Car calls may be set to one of three states: locked, secured, or unsecured. If a car call for a particular floor and a particular side (front or rear) is set to locked, then no one shall be able to register that car call.

If a car call is set to secured, then only passengers with a proper access code shall be able to register that car call.

If a car call is set to unsecured, that car call shall be registered without restriction.

Access Control Resolution

At the highest resolution, the user shall be able to control access on a per button basis. This means that every single call button in the system shall be programmable and have its own unique access schedule. The system shall also include the flexibility to allow the user the option of combining or grouping calls together, which allows access control at a lower resolution and makes the job of programming and maintenance more manageable. Additionally, the user could combine every single car call and hall call in the system into a single combined call. When that combined call is locked, all calls in the whole system shall be locked. When that call is unsecured, all calls shall be accepted without restriction.

Access Control Programming

The access control programming feature shall allow the user to program the level of access to be in effect on specific days of the week and time of day. As an example, a user may wish to lock certain floors on weekends, while other floors may be unsecured on weekends. A user shall be able to program access via eight security configurations and a programmable security configuration timer table. When the time of the event occurs, the event program shall automatically secure the building in the manner desired.

Car Station Keypad

The system shall provide car call access by using the car pushbutton station(s) as a keypad to allow authorized passengers to enter their access code. When the access system is activated, access codes must be used to register calls to any floor that has been designated as a secured floor.

Passenger Access Control

The passenger access security feature shall provide car call security for each elevator in the system to any secured floor on an individual passenger basis by using unique individual passenger access codes. The passenger shall use the car call buttons available in each car to register the appropriate passenger access code required to go to a floor.

Each passenger shall have their own unique passenger access code, and may be authorized to have access to a single floor or many different floors by assigning accessible floor number(s) in the individual's data file. Time restrictions may also be assigned to an individual passenger to restrict access during certain time periods.

The passenger data file shall include a passenger ID (name), unique personal access code (number), authorized floor destinations and authorized time window(s).

Floor Access Control

The floor access security feature shall provide car call security for any secured floor. Access codes can be assigned on a per floor basis giving each floor a different access code or, if desired, the system shall allow a single access code to be assigned to more than one floor.

Any passenger with the proper access code shall be permitted to register a car call for that floor. The passenger shall use the car call buttons in each car to register the appropriate access code. The access code assigned to a floor shall be used by all passengers going to that floor.

User Interface

The user shall have limited system access through a machine room CRT terminal or any remote extension of the machine room CRT terminal. The user shall be able to access the system through an IBM-compatible computer running Central Monitoring System (CMS) software and/or Security Interface Software (SIS).

The building manager or other authorized personnel with the appropriate system security password shall be able to program the system, view building access configurations (past, current and future), print reports and so forth.

Report Generation

A list of passengers who registered secured car calls shall be available on the CRT terminal and shall be sorted by time and date. The system shall store all events associated with the use of any individual passenger access code.

Reports shall be generated by an IBM-compatible computer running Central Monitoring System (CMS) software and/or Security Interface Software (SIS). Users with Security Interface Software (SIS) shall be able to select and sort the list of car calls to secured floors by date, time, source floor, destination floor, car number and passenger ID.

The user interface shall let the user see and print a report listing the time and date at which individual passengers accessed secured floors.

Software Switch

The software switch is a logical switch accessed through a machine room CRT terminal or an IBM compatible computer running Central Monitoring System (CMS) software and/or Security Interface Software (SIS). When the software switch is on, the building elevator access system shall be activated and when off, the system will be deactivated.

Specification Text, Special Operations

The access system shall be overridden in case of fire service. As an option, in the case of independent service, hospital service and other special operations, the system may or may not be overridden.

Security Interface System

Specification Text, Security Interface System, Optional

The capability shall be provided to view the status screens and program the security variables for Basic Security with CRT or Access Control for Elevators (ACE) security using an IBM compatible computer running Security Interface Software (SIS).

Additional Security Options

Specification Text, Central Monitoring, Optional

The capability shall be provided to view the status screens and program the security variables for Basic Security with CRT or Access Control for Elevators (ACE) security using an IBM-compatible computer running Central Monitoring System (CMS) software and Security Interface Software (SIS).

Specification Text, Card Reader Interface, Optional

A card reader interface shall be provided. The card reader vendor shall provide a dry contact output.

Specification Text, Floor Key Lockout, Optional

The control system shall be engineered to provide floor key lockout.