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## Controller Options

### General

Depending on the application, features and accessories described in this section are available for MCE controllers as standard or optional equipment. A consultant, contractor or building owner can choose which features and accessories are appropriate for a specific application.

Certain features or accessories may not be available on some controllers. Consult your MCE Sales Representative for further information.

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## Attendant Service Operation

Optional - An attendant service switch shall be provided to initiate the following operations:

- When the car is stopped at a landing, the doors shall open automatically and shall remain open until closed by the attendant.
- The doors shall be closed by constant pressure on any one of the following controls: the door close button, a car call button, car switch or the up or down attendant direction buttons.
- The car shall receive hall calls as they are normally assigned by the controller logic system, but response shall be determined by the attendant. A momentary buzzer shall sound, and attendant direction lights shall indicate whether the call originated above or below the car.
- A bypass button shall be provided to override hall calls, permitting the attendant to proceed nonstop to a selected call.
- In case of fire service operation, the attendant shall be notified by the audio-visual fire warning indicator.

## Binary Position Indicator Outputs

Optional - The controller shall provide binary coded position indicator (PI) outputs to drive position indicators from selected manufacturers.

## Call/Send Operation

Optional - This feature is typically used for dumbwaiters or freight elevators.

A call/send switch shall be provided. When placed in the on position, the call/send switch shall initiate the following operations:

- A hall station shall be provided at each landing, consisting of a single call button and a series of send buttons corresponding to each landing in the building.
- Call - The car shall be called to a floor from the hall call stations by registering a call at that floor.
- Send - The car shall be sent to a floor from the hall call stations by registering a call for that floor.
- When the car arrives at a landing, the doors shall open automatically and then be closed by the hall station door close button. If automatic door close operation is in use, the doors shall close after a programmable time period.
- The car shall respond to only one call/send demand at a time.

## CRT/Keyboard

Optional - The CRT display terminal shall support an easy-to-use, menu driven diagnostic tool designed to provide essential information about the elevator system to the service technician, passengers, or to a remote location for security or other purposes. The CRT display terminal shall consist of a monitor and a keyboard. A CRT display shall consist of a monitor only. All CRT display terminal systems shall include the following features:

- Menu-Driven Format
- Job Summary Page
- Graphic Display of Elevator System Status
- Car Flags
- Elevator System Performance Pages

The machine room CRT display terminal shall provide the service technician with diagnostic information about the elevator system to facilitate troubleshooting and evaluation of elevator system performance.



### Note

Certain control products (such as IMC) may require a CRT display terminal for adjustment purposes.

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Optional - The remote CRT display or CRT display terminal can be used for different applications, such as a lobby terminal (to inform the passengers of car position and direction of travel) or in a security room or fire control center for use by building personnel. Remote monitoring uses modem communication or line drivers.

Optional - A printer shall be provided which shall allow the user to print out any of the available information.

## Down Collective

Optional - The controller shall be a down collective system that only responds to down hall calls above the lobby. The controller shall respond to car calls in the direction of travel. An up traveling car shall proceed to the highest down hall call and then collect calls in the down direction of travel. Once the lowest down hall call and car call have been answered, the down collective process shall be repeated.

## Dumbwaiter Ejector Control

Optional - All ejector controls shall be included as an integral part of the controller.

## Dumbwaiter Queuing Control

Optional - All cart and tray queuing controls shall be included as an integral part of the controller.

## Earthquake Operation

The controller shall be designed according to applicable code requirements for earthquake operation.

### Emergency Power

Optional - (Traction Elevators) When emergency power is detected, cars shall return to the main lobby one elevator at a time, and remain there with doors open. While each car is being returned, all other cars shall be shut down so as not to overload the emergency power generator. Once all cars have been returned to the lobby, one or more cars may be selected to run under emergency power, depending on the capability of the emergency power generator. Selection of cars that run under emergency power shall be done automatically by the group system. This automatic selection may be overridden through manual selection. The actual number of cars allowed to run under emergency power shall be a preprogrammed value and the number of cars allowed to run shall not exceed this value.

Optional - (Hydraulic Elevators) A means of lowering the elevator shall be provided when there is a power failure. This operation shall bring the car to the lowest landing and allow passengers to exit the elevator. This operation requires a separate battery operated power supply system. Emergency power generator control is also available.

### Hospital Emergency

Optional - This service shall call any eligible in-service elevator to any floor on an emergency basis. A medical emergency call switch shall be installed at each floor where medical emergency service is desired.

When the medical emergency momentary call switch is activated at any floor, the medical emergency call registered light shall illuminate at that floor only, and the elevator group system shall instantly select the nearest available elevator to respond to the medical emergency call. All car calls within the selected car shall be canceled and any landing calls which had previously been assigned to that car shall be transferred to other cars. If the selected car is traveling away from the medical emergency call, it shall slow down and stop at the nearest floor, without opening the doors, reverse direction and proceed nonstop to the medical emergency floor. If the selected car is traveling toward the medical emergency floor, it shall proceed nonstop to that floor. If at the time of selection, the car happened to be slowing down for a stop, it shall stop without opening the doors, then start immediately toward the medical emergency floor.

On arrival at the medical emergency floor, the car shall remain with doors open for a predetermined time interval. If, after this interval has expired, the car has not been placed on in-car medical emergency operation, the car shall automatically return to normal service.

A medical emergency key switch shall be located in each car operating station for selecting in-car medical emergency service. Upon activation of the key switch, the car shall be ready to accept a call for any floor, and after the doors are closed, proceed nonstop to that floor. The return of the key switch to the normal position shall restore the car to group operation.

Any car selected to respond to a medical emergency call shall be removed from automatic or group service and shall accept no additional calls, emergency or otherwise, until it has completed the initial medical emergency function.

Any eligible car in service may be selected. As additional medical emergency calls are registered in the system, other eligible cars shall respond as described above, on the basis of one medical emergency call per car. If all cars are out of service and unable to answer an emergency call, the medical emergency call registered light shall not illuminate.

### Integral Voice Annunciation

Optional - The controller shall include, as an integral part of the controller, a computer voice annunciator. The contractor shall only need to furnish wiring to the elevator cab and a speaker. The annunciator shall announce the floor number and the intended direction of travel.

### Keyboard Control

Optional - Computer control shall be provided to turn on/off certain elevator key operated functions, such as independent service, swing car operation and so forth. This control shall be available from a remote station as well as from the machine room. Consult your MCE Sales Representative.

### Load Weighing Anti-Nuisance

Optional - The computer shall cancel all previously registered car calls if the number of car calls registered exceeds a predetermined adjustable number while the light load function is active. A load weighing device is required to implement the load weighing anti-nuisance feature (see Section 13, Load Weigher).

### Load Weighing Dispatch

Optional - All door dwell time shall be removed from any lobby landing should cars become loaded to a predetermined load level. A load weighing device is required to implement the load weighing dispatch feature (see [Section 13](#), Load Weigher).

### Load Weighing Hall Call Bypass

Optional - Cars shall bypass hall calls if loaded to a predetermined load level. A load weighing device is required to implement the load weighing hall call bypass feature (see Section 13, Load Weigher).

### Load Weighing Overload

Optional - Cars shall remain at the floor with doors open if loaded to a predetermined load level considered unsafe to move the elevator. A load weighing device is required to implement the load weighing overload feature (see Section 13, Load Weigher).

## Load Weighing Pre-Torquing

Optional - A system for pre-torquing gearless DC hoist motors shall be provided in order to ensure consistently smooth starts. A load weighing device is required to implement the pre-torquing feature (see Section 13, Load Weigher).

## Manual Doors

Optional - The controller shall include circuitry for the operation of manual doors. The controller shall provide for the operation of retiring cams, gate release solenoids and other appurtenances that may be required with manual doors.

## Monitoring with CMS

Optional - For Central Monitoring System (CMS), refer to [Section 14](#).

## Monitoring from Remote Locations

Optional - Refer to Section 9, CRT/Keyboard.

## Motor Generator Shutdown Switch

Optional - A switch shall be provided to control the shutdown of the motor-generator set for each car. In the “on” or normal position, the motor-generator shall run as system demand dictates. When placed in the “off” or shutdown position, the switch shall return the car to the main lobby landing. When the car arrives at the landing, it shall perform normal door operation and the motor-generator shall be shut down once the doors are fully closed. Optionally, the car may be shut down with the doors left open.

## On-Board Diagnostics

Each controller shall be provided with on-board diagnostics for quick and easy troubleshooting of basic functions.

## Power Freight Door Control

Optional - Elevator controllers shall include all the logic and power controls required for power freight door operation. Alternatively, controllers shall provide the necessary interface to operate with power freight door controllers as manufactured by a freight door manufacturer.

## Rear Doors (Staggered/Independent)

All MCE controllers can provide the necessary interface to control staggered rear doors.

## Rear Doors (Walk-Through/Independent)

All MCE controllers can provide the necessary interface to control walk-through rear doors.

## Security

Optional - Refer to [Section 15](#), Elevator Security for specifications.

## Serial Communication Car Operating Panel

Optional - Refer to [Section 10](#), SmartLINK Serial Communication for specifications.

## Serial Communication Hall Fixtures

Optional - Refer to [Section 10](#), SmartLINK Serial Communication for specifications.

## Serial Position Indicator Driver

Optional - A direct interface shall be provided for CE electronic fixtures using three-wire serial communication.

## Single Automatic Pushbutton

Optional - The controller shall provide automatic operation by means of one button in the car for each landing served and one button at each landing. If any car or landing button has been actuated, pressing any other car or landing button shall have no effect on the operation of the car until the response to the first button has been completed.

## Single Button Collective

Optional - The controller shall provide automatic operation by means of one button in the car for each landing served and one button at each landing. All stops registered by the momentary actuation of landing or car buttons are made irrespective of the number of buttons actuated or of the sequence in which the buttons are actuated. With this type of operation, the car stops at all landings for which buttons have been actuated, making the stops in the order in which the landings are reached after the buttons have been actuated, but irrespective of its direction of travel.

### Swing Car Operation

Optional - Swing car operation shall allow an elevator to be removed from the normal group system and operated independently of the normal system hall calls. The swing car shall respond only to corridor calls entered from a separate hall riser and shall operate as a simplex car when removed from the group system. The car shall be placed in this mode of operation by a key switch in the main lobby corridor, car, keyboard or other panels which shall immediately remove the car from the group system. Any hall calls that had previously been assigned to the swing car by the group system shall immediately be reassigned.

Acting as a simplex car, the swing car shall operate from its own independent set of hall calls, and it shall be possible to assign a parking floor to the swing car without regard to the group system parking floors. The swing car shall remain under group system control during emergency recall situations such as fire service operation and emergency power operation.

Swing cars are sometimes required to operate in more than one group such as low rise, high rise, passenger and service groups. The controllers shall be capable of being configured to meet this requirement.

### Custom Software

Optional - Custom software may be written to meet project specific requirements. Consult MCE Sales Engineers for information and pricing.

