

APPENDIX D
EARTHQUAKE EMERGENCY OPERATION
CALIBRATION

To be able to use the « Seismic switch » and the « Counterweight displacement switch », you need to calibrate the JRT controller. That will allow the controller to take a snap shot of the position of the counterweight in the hoist way.

This is the procedure to follow:

- This procedure needs to be done after the recording of the floors positions.
- Place the elevator in inspection mode.
- Use the “PCH” or “PCB” buttons to move the car in front of the counterweight. (Be sure that you are centered in front of the counterweight).
- With the programming tool:

➤ PRESS:

CLR	DM	0227	MONTR
SCREEN =	D0227	0000	
CHG	1234	WRITE	

- Don't move the car for 5 sec. The controller will save the actual counterweight position.
- After 5 sec. the value of the DM0227 will return to 0000.
- To verify if you did the good procedure with the programming tool, compare the “Real position” of the counterweight with the “saved position value” DM:

➤ PRESS:

CLR	DM	0490	MONTR
SCREEN =	D0490	XXXX (counterweight position)	
DM	0224	MONTR	
SCREEN =	D0224	XXXX (saved position)	

- If both values are the same, you can use the “Seismic switch” and the “Counterweight displacement switch”.

OPERATION OF ELEVATORS UNDER EARTHQUAKE EMERGENCY CONDITIONS

- A. Upon activation of a seismic switch (SCS), all elevators with operation that are in motion shall proceed to the nearest available floor, open their doors, and shut down; except that where Phase II Emergency In-Car Operation is in effect, door operation shall conform to 2.27.3.3.
- B. When the counterweight displacement switch (SCS) is activated, the elevator, if in motion, shall initiate an emergency stop and then proceed away from the counterweight at a speed of not more than 0.75m/s (150ft/min) to the nearest available floor, open the doors, and shut down; except that where Phase II Emergency In-Car Operation is in effect, door operation shall conform to 2.27.3.3.
- C. Elevators with power-operated doors, upon reaching a landing shall cause their doors to open and remain open; except that where Phase II Emergency In-Car Operation is in effect, door operation shall conform to 2.27.3.3.
- D. Upon activation of an earthquake protective device (SCS), an elevator standing at a floor with its doors open shall remain at the floor. If its doors are closed, it shall open its doors. Where Phase II Emergency In-Car Operation is in effect, door operation shall conform to 2.27.3.3.
- E. An elevator not in operation when an earthquake protective device (SCS) is activated shall remain at the landing.
- F. An elevator shall be permitted to be operated at a speed of not more than 0.75m/s (150ft/min), provided the counterweight displacement switch (CDS) is of the continuously monitoring type and is not activated.
- G. Continuous activation of a displacement switch (CDS) shall :
 - 1. Prevent operation of the car, except from the inspection station located on top of the car;
 - 2. Prevent operation of the car by means of the emergency service key described in 2.27.3.1 and 2.27.3.3, hospital emergency service key, and other similar types of operation;
- H. Elevators stopped by an earthquake protective device with a volatile-type memory shall remain idle in the event of a power failure. Subsequent restoration of power shall not cancel the status of the earthquake protective devices nor the slow speed status of the elevator system if such existed prior to the loss of power.
- I. An elevator shall be permitted to be returned to normal service by means of the momentary reset button or switch (REA), provided the displacement switch is not activated.

EARTHQUAKE EMERGENCY OPERATION DIAGRAMMATIC REPRESENTATION

