

San Francisco Fire Department

Division of Training

Training Bulletin 18-1



Siemens LRV4 Safe Lifting Guide

January 2018



SAN FRANCISCO FIRE DEPARTMENT

SIEMENS LRV4 SAFE LIFTING GUIDE

DIVISION OF TRAINING



Preparation of the Siemens LRV4, prior to lift.



SECURE FROM MOVEMENT

1) Apply Brakes

- a) Use the Emergency Stop Button to engage the brakes. This button fully engages the brakes to prevent the car from moving. It is the big red “mushroom” button located in either Operator's Compartment
 - i) Press to activate



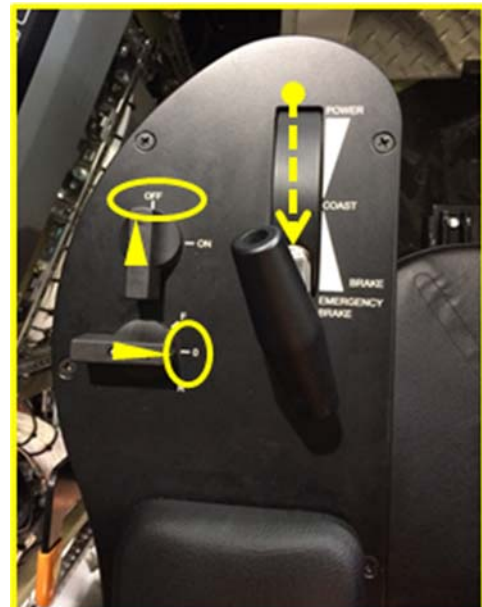
Key Down Master Control

- a) Located in the Operator's Cab, left side of seat, in front of armrest.

2) Tee Bar is set to “Emergency Brake”

3) Switch to “Off”

4) Selector set to Neutral “0” (Centered between “F” and “R”)



SECURE FROM MOVEMENT

5) Block Wheels

- a) Yellow Wheel blocks
 - i) Located in each Operator Compartment under the fire extinguisher.)
 - ii) Chock wheels on the truck that is not being lifted, front and back wheels in opposite directions.



SECURE ELECTRICAL

- 1) **Lower Pantograph** (Pantograph is located on the top of the “A” car.)

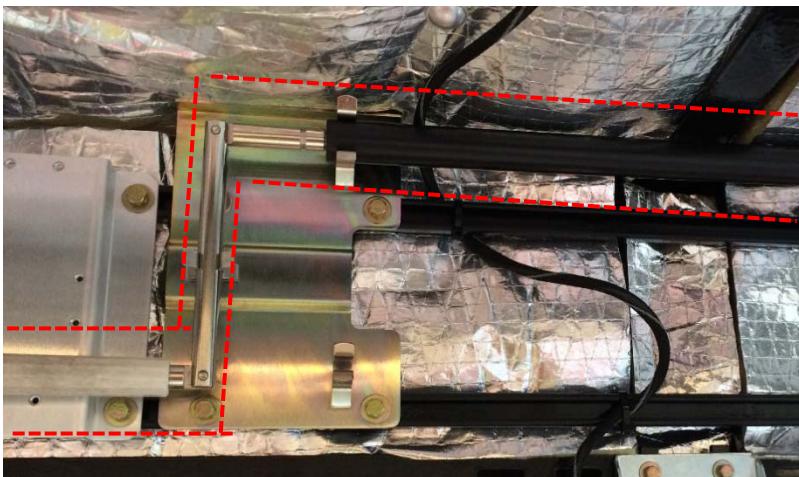


- a) Automated:
Pantograph Switch is located on a panel on the left side of the Operator's Cab.
 - i) Toggle switch to “DOWN” to lower. (Visually confirm the lowered Pantograph from the outside)



SECURE ELECTRICAL

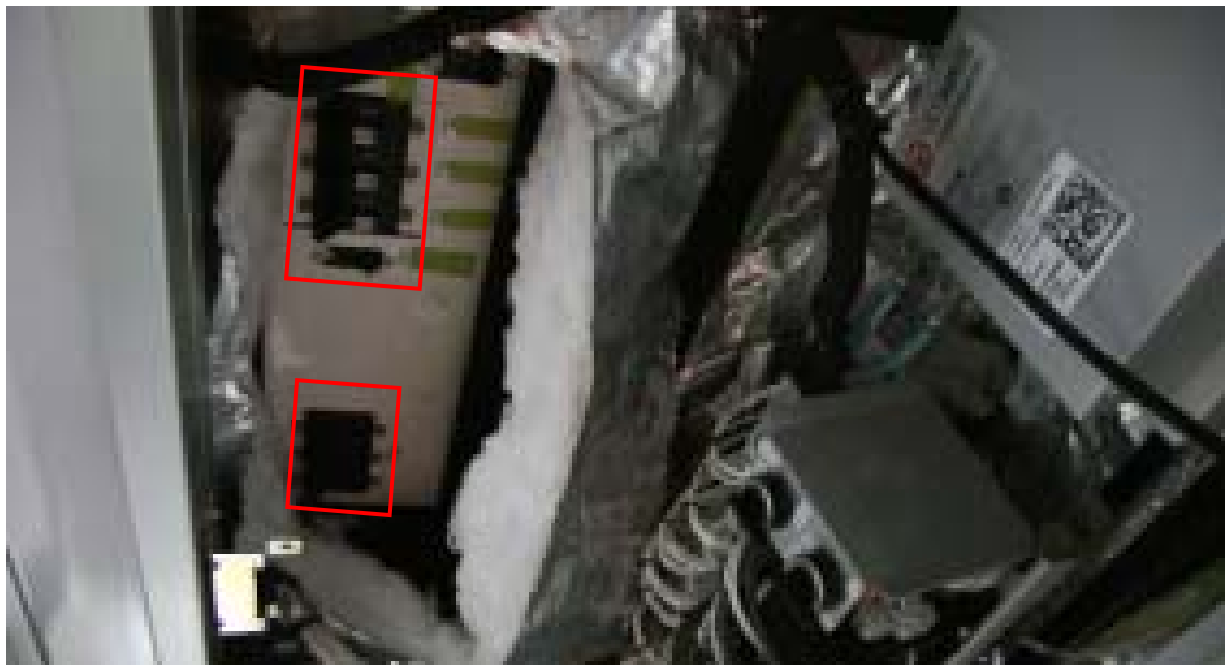
- b) Manual:
Manual Crank is located in the “A” end of the car. Facing the operator's cab, it is the 2nd access panel on the left and should be marked. You access it with the square drive key.
- i) Crank **Clockwise** to **lower** until a “thud” is heard on the car roof.
(Visually confirm the lowered Pantograph from the outside)



SECURE ELECTRICAL

2) Disconnect Battery

- a) Battery Circuit Breakers are located in the overhead panels on the left side of the "A" end of the car, near the center section.
- b) Flip all the switches to the "OFF" position

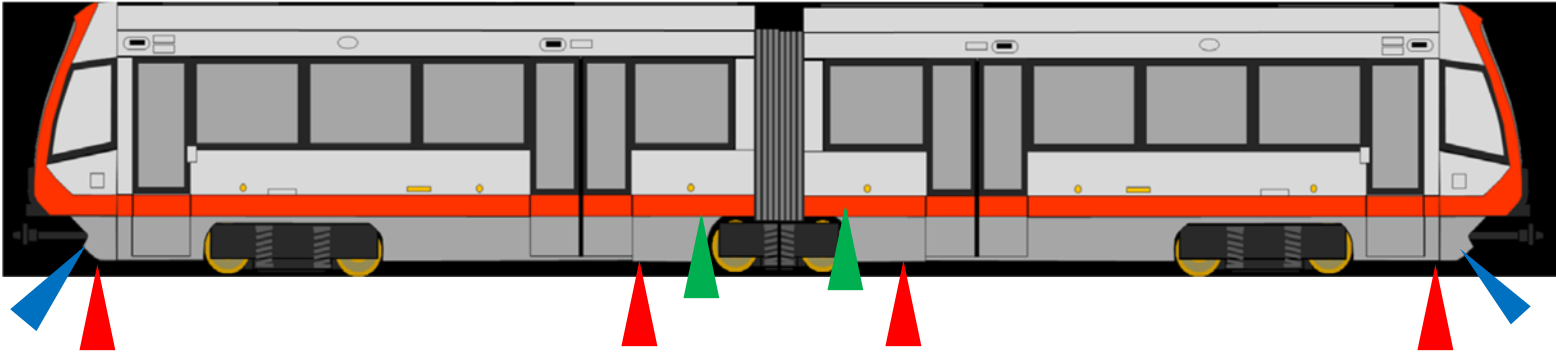


Siemens LRV4 Safe lifting Procedures

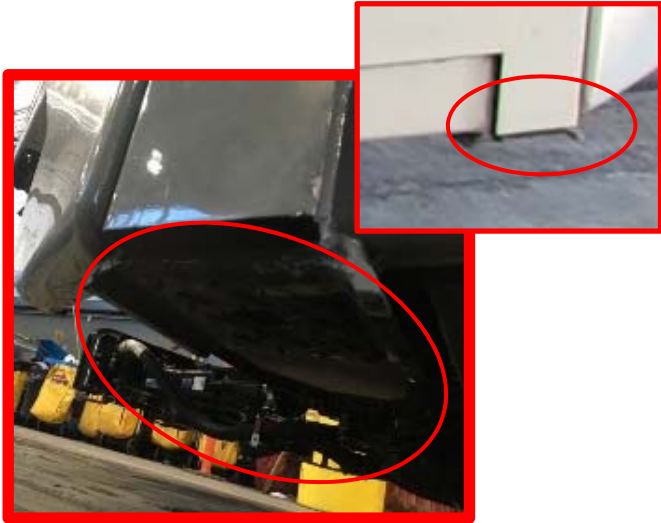
LIFTING GUIDELINES

1) Lifting and Crib Point

- a) These are identified by hardened black “Diamond Plate” platforms located on both sides of the car.



- b) The jack points are indicated by blue and green arrows.
 - i) The holes in the jack points will accommodate the pin in the SPX Jack.
- c) The Crib points are indicated in red.



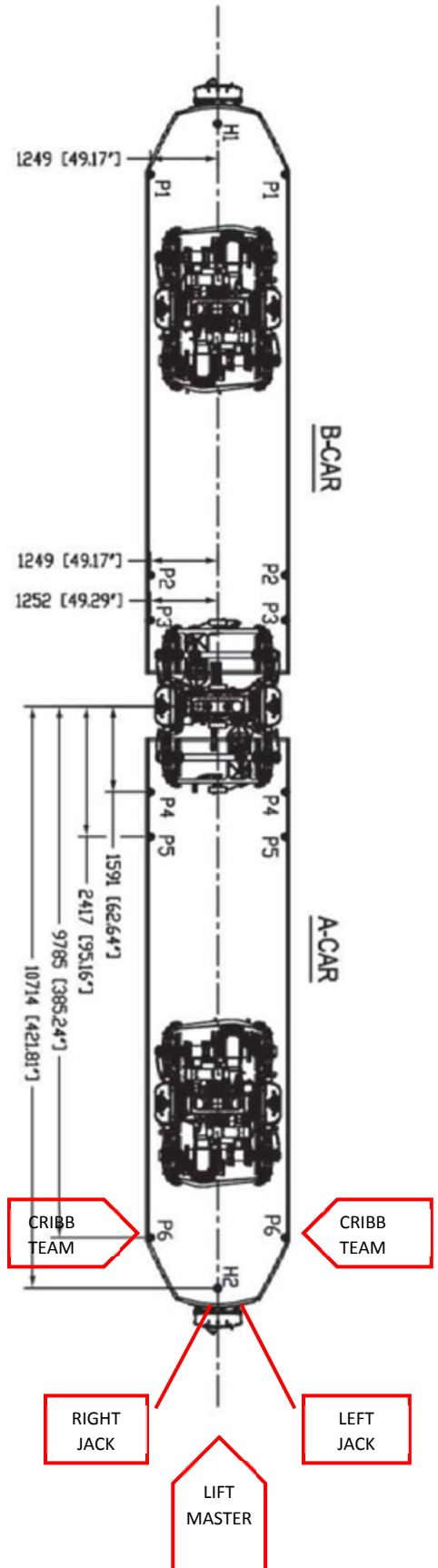
2) Lifting Team (End Trucks)

The Lifting Team should consist of nine personnel. Orientation is facing the rescue.

- a) A Crib Team consists of a “Cribber, Feeder and Safety”. Two Crib Teams are required for an end truck lift.
 - i) The dimensions of the Jacking Pad require the cribbing to be angled.



- b) The use of two jacks is recommended for better control. Jack pumps should be out to the sides to allow for unobstructed view for the Lift Master.
 - i) The use of a level on the bumper is required
- c) The Lift Master controls all lift operations once the lift has commenced.



3) Lift Objectives

- a) The goal is to elevate both wheels from the track so the truck can be rotated.
 - i) The initial height of the LRV bumper is about 27" on flat ground. A height of 37" is required to clear all the wheels of the truck.
 - ii) A level shall be utilized so that the LRV maintains the same pitch when sitting on the ground.

4) Safety Point

- a) **“Stick” is the command that is given to stop the lift. When this command is given, the jack operators will stop the jacks and the cribbing team will set the wedges to maintain the height of the LRV.**
 - i) Anyone on the lifting team or the patient rescuers can give this command.
 - ii) Once the reason for the “Stick” is given to the Lift Master, the event should be addressed and the lift can continue.





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1) Lower Pantograph (Pantograph is located on the top of the “A” car.)

- a) Automated: Use Switch “DOWN”
- b) Manual: Use Crank “CLOCKWISE”
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- a) **Flip all the switches to the “OFF” position**



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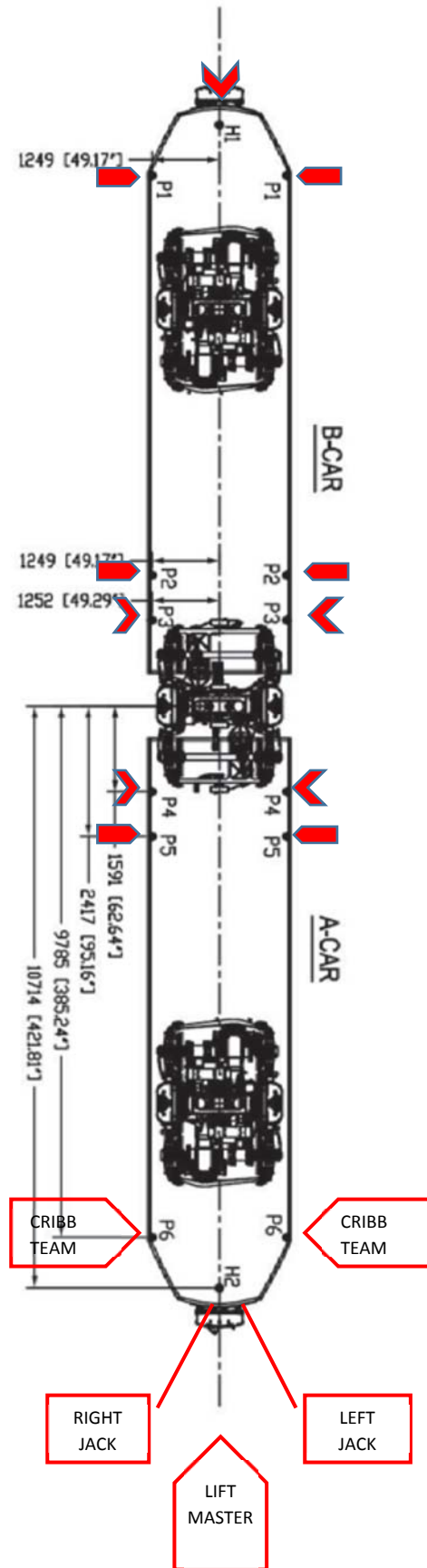
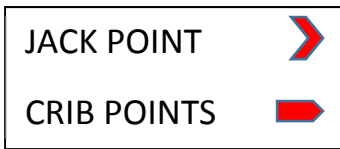
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Training Bulletins**

- 90-7** Roof Ventilation Utilizing the XL-98
- 91-5** Elevator Rescue
- 93-1** Civil Disturbance Operations
- 93-2** Safety Considerations, XL-98
- 93-3** MRI Systems Safety
- 95-3** Size Up
- 95-7** Garage Door Precautions and Forcible Entry
- 96-3** Confined Space Operating Guidelines
- 96-5** Occupational Safety
- 97-1** Instructional Methodology
- 97-4** Electrically Powered Vehicles
- 02-1** Bomb & Bomb Threat Procedures
- 04-2** Safe Haven for Newborns
- 05-1** Self-Reading Electronic Dosimeter
- 07-2** End-Tidal CO₂ Monitor Device
- 13-1** Incident Support Crew
- 18-1** Siemens LRV4 Safe Lifting Guide