

# CHANGES IN CAR 4

1. TREAD TYPE PARKING BRAKES HAVE BEEN INSTALLED to replace the drum type parking brakes. Once cut out manually, the actuator manual release levers cannot be reset except by the Shop Department. Before cutting out the parking brakes, make certain that the car is in a location where it will not roll. When coupling, procedure outlined in "Trouble Shooting Procedures, Rapid Transit All-Electric Cars" must be followed.
2. THIS CAR HAS NO TRACK BRAKE. Braking procedures remain as outlined in "Braking, All-Electric Cars" except where use of track brake is indicated.
3. A PANTOGRAPH HAS BEEN INSTALLED on the No. 1 end of the car. The pantograph will normally be used when operating on trolley wire in either direction of travel.

A pan trolley will remain on the No. 2 end of the car for use in the event the pantograph does not function properly.

Operating instructions for the pantograph are as follows:

## OPERATING CONTROLS

The three button panel and indicating light remain in each cab. The controls in each cab have the same functions which are (1) Top button lowers the pan trolley (2) Middle button raises the pantograph (3) Bottom button lowers the pantograph (4) The indicating light comes "on" when the pantograph is in the lowered position and the pan trolley is down and latched. The light remains "on" as long as the Cineston key is in forward position and the pantograph and pan trolley are both down and latched.

NOTE: There is no control to raise the pan trolley. If used, it must be released manually.

## OPERATING INSTRUCTIONS

NOTE: At Dempster street, the Operator does not operate the pantograph when changing ends.

- (1) To raise pantograph, depress and hold the "Pantograph Up" button until the pantograph contacts the wire.
- (2) To lower pantograph, depress and hold the "Pantograph Down" button until the "Pantograph Down" indicating light illuminates.
- (3) To lower the pan trolley, depress and hold the "Pan Trolley Down" button until the "Pantograph Down" indicating light illuminates.

## PANTOGRAPH TROUBLE SHOOTING PROCEDURES

### ● Pantograph Does Not Rise

- (1) If the pantograph will not rise, lock up Cineston in operating cab, go to rear cab, open Cineston and attempt to raise pantograph. If pantograph rises, lock up Cineston, return to forward cab and proceed.
- (2) If pantograph still will not rise, go to No. 2 end of car and release pan trolley manually.
  - (a) If pan trolley is in trailing position return to cab and operate normally.
  - (b) If pan trolley is in forward position (raised against direction of travel)
    - (1-b) Notify Line Supervisor.
    - (2-b) Plug the Power Control Relay "in."
    - (3-b) Proceed at not more than 15 MPH.

### ● Pantograph Does Not Lower

NOTE: If the car is contacting third rail but not contacting trolley wire and the pantograph is in the raised position, the Power Control Relay will drop out and the Green door signal light will go out.

If, when contacting third rail, the green door signal light goes out and the Power Control Relay drops out (train will not move - green light out), the Operator, after checking the doors, must check the position of the pantograph.

- (1) If the pantograph is raised, depress and hold the "Pantograph Down" button until the pantograph is lowered.
- (2) If pantograph still does not lower, lock up Cineston in operating cab, go to rear cab, open Cineston and attempt to lower pantograph. If pantograph lowers, lock up Cineston, return to forward cab and proceed.
- (3) If pantograph still does not lower, it must be lowered manually and secured by means of the hook provided near the center of the car.

CAUTION: When lowering pantograph manually, be certain to stand on trolley boards.

When pantograph is lowered and secured, return to cab and proceed.

NOTE: If train still will not move after pantograph is lowered manually, plug Power Control Relay "in."

## CAR TROUBLE SHOOTING PROCEDURES

Other trouble shooting procedures remain as outlined in "Trouble Shooting Procedures, Rapid Transit All-Electric Cars."