

MELBOURNE AND METROPOLITAN TRAMWAYS BOARD.INSTRUCTIONS FOR DRIVERS OPERATING P.C.C. CAR NO.980.

Drivers operating the P.C.C. Car No.980 should note that this is a four motor equipped car, fitted with electrical dynamic braking by the motors, friction drum braking on armature shafts and magnetic track brake on the rails. There are no brake shoes on the wheels of the car. An air compressor is included in the equipment of the car to supply compressed air for the operation of the sliding doors, sanding gear and screen wipers, which with lighting switches, foot gongs, life guards and destination signs are as for standard cars.

TO PREPARE THE CAR FOR THE ROAD.

See that no employ e is working in, under, or around the car. See that reverse key is in neutral position on controller, and brake handle in "Latch" or "Handle Off" position. See that front trolley pole is secured under the hook, and the rope tied, and rear trolley pole is on overhead wire. Put master switch in both cabins to "On" position - this starts the motor generator which must be kept running all the time the car is in service. Put compressor switch to "On" position and note that compressor starts and pumps up to maximum pressure. Test lighting, sand gear and life guards. Adjust destination and route signs. See that car is equipped with spare fuses, globes and point bar and examine car for signs of recent damage etc.

TO START THE CAR.

Place reverse key in "Forward Drive" position and brake handle in "Brake Release" position (i.e. extreme left). The controller is then moved to the first notch, which will start the car and give slow automatic acceleration to speed.

Placing controller handle on second notch will give slow automatic acceleration to maximum speed. Placing controller handle on third notch gives a fast rate of acceleration to maximum speed.

First notch to be used for slow acceleration only, for normal operation cut directly to second. For faster acceleration, cut to any position past second to third notch. Do not notch up from first to third.

NOTE: Running on any notch for any length of time is not detrimental to any part of the equipment.

To prevent the car rolling backwards when starting on an up grade, place controller handle in first notch position before releasing brake.

TO STOP THE CAR.

Place controller to "Off" position, dynamic braking is then obtained by moving brake handle to the right towards "Latch" or "Handle Off" position, the further the brake handle is moved to the right, the greater the braking will be applied until "Latch" position is reached when the full dynamic braking will be obtained.

If a faster rate of braking is required, the brake handle is moved further to the right, past the "Latch" position, when in addition to dynamic braking, the magnetic track brakes will be applied. When car speed drops to about one mile per hour, the friction drum brakes are automatically applied and bring the car to a stop. A red light on the dash in driver's cabin indicates that drum brakes are in operation.

The magnetic track brake is an emergency brake and should not be required for ordinary service stops; it should not be used when passing over railway or tramway intersections, crossings, curves or points except when absolutely necessary.

An emergency brake is also obtained by putting reverse key to "Forward Emergency" position on controller.

CHANGING ENDS.

Place controller handle to "Off" position, and brake handle in "Latch" or "Handle Off" position, when reverse key can be moved to "Neutral" position for removal.

TO PARK CAR OR PUT AWAY IN DEPOT.

Place controller handle to "Off" position, brake handle in "Latch" position, reverser in "Neutral" and remove key, place both master switches, compressor switch and lighting switches in "Off" position and sign off condition of car in the usual way. Make sure Master switches are placed in "Off" position; check this by observing that red brake light is out and volt meter at zero.

OPERATION OF AUTOMATIC POINTS.

As power and braking cannot be applied together on this car, special provision is made to set automatic points for the curve by operating a track throwing switch on the dash in front of driver. When the car is to proceed on a down grade around a curve, the track throwing switch must be kept closed until the trolley wheel has passed under the overhead switch.

As this track throwing circuit automatically opens after twelve seconds, the push button must not be kept closed for too long a period before entering overhead switch. If car is to proceed along "straight" track, it must be allowed to "coast" with power off until trolley wheel has passed through overhead switch as on ordinary cars.

ACTION TO BE TAKEN IF CAR FAILS TO START.

See that trolley pole is on overhead wire and turn on lights to prove that power is on and car wheels are not insulated from rails by dirt, sand etc. See that both master switches are at "On" position. See that red brake light is out, indicating that drum brakes have released. If car will not start, take reverse key and brake handle to the rear cabin and test to see if car will drive "forward" from that end. If car starts, will prove that "reverser" is at fault. Take reverse key and turn reverser manually (in motor cut out switch box in centre compartment of car) in direction in which car is to be driven.

If car fails to start when tested from both ends, put master switch in No.1 driver's cabin to "Off" position, remove cover from fuse panel and renew control fuse No.4, replace cover, close master switch and test for "forward" drive again. If car still fails to start, cut out Nos.1 and 2 motors and test again. If car still fails to start, cut in Nos.1 and 2 motors and cut out Nos. 3 and 4 motors and test again. If all tests fail, notify Depot and Carlton Control as soon as possible.

Drivers should refrain from moving master switches from "Off" to "On" position, or from "On" to "Off" position until a period of at least six seconds has elapsed after each movement, as this action will cause a "surge" of power through drum brake lamps, burning them out.

In the event of a collision in which the controller or brakes are thrown out of action, the car may be stopped by placing either of the master switches in the "off" position.

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12th October, 1950.