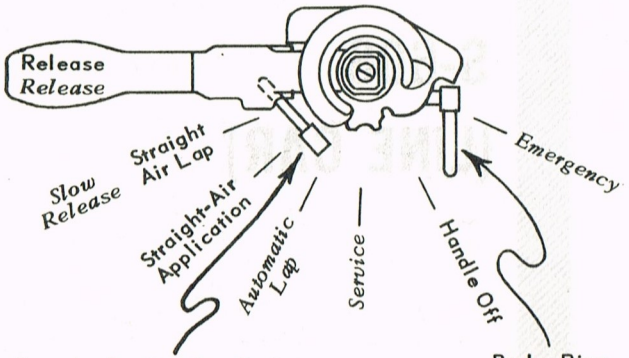
OPERATING INSTRUCTIONS

S-606 (LINE CAR)

METROPOLITAN TRANSIT CTA
CHICAGO TRANSIT AUTHORITY
TRAINING & ACCIDENT PREVENTION DEPARTMENT
64-7-T

BRAKING SYSTEM

NOTE: Positions in *italics* are used when operating train (two or more cars).
Positions not in italics are used for single car operation.



Straight-Air Cut-Out Cock
(Open [Handle at Right Angle to Pipe] for Single Car Operation)
(Closed [Handle Up] for Train Operation)

Brake Pipe Cut-Out Cock
(Must be Open Whenever this Valve is Used)

SINGLE CAR OPERATION

1. Move handle to straight-air application position.
2. When desired brake cylinder pressure is obtained (shown on single-pointer Brake Cylinder Gauge located to right of Brake Valve), move handle to straight-air Lap position.
3. Allow handle to remain at Lap position until you wish to release brakes or make a heavier application.

CAUTION: When Linemen are working on roof of car, Motorman must make smoothest possible stop.

TRAIN OPERATION (TWO OR MORE CARS)

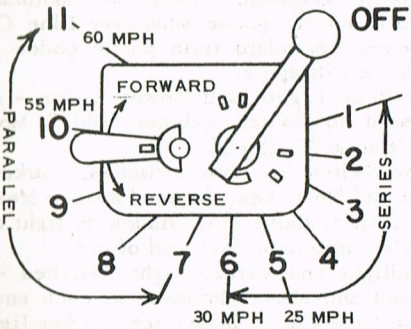
Operate same as on 4000 Series, noting the different location of positions on this brake valve.

CAUTION: To avoid damage to wheels and drawbars straight-air must not be used when operating a train of two or more cars.

CONTROLLER

POINTS 1, 2, 3, 4, 7, 8, AND 9 ARE ACCELERATING POINTS. WHEN FEEDING UP, PAUSE MOMENTARILY AT EACH POINT, BUT, TO AVOID DAMAGING RESISTANCE DO NOT OPERATE MORE THAN A FEW SECONDS AT A TIME ON ANY OF THESE POINTS.

POINTS 5, 6, 10, AND 11 ARE RUNNING POINTS (MARKED IN YELLOW ON CONTROLLER)



BEFORE MOVING CAR

Make certain Trolley Changeover Switch (in switch cabinet at No. 1 end) is "down" if operating on rail, "up" if operating on wire.

CAUTION: Controller must be "off" when Trolley Changeover is operated.

RUNNING CAR

1. Make certain brakes are released (power should not be applied with brakes set).
2. Push handle down and move to first point.
3. Move handle point by point, with a pause at each point, until you reach the desired running point. Line breaker will blow if controller is notched up too rapidly.
4. When you wish to shut off power, move handle to "off" position and then allow handle to rise. (If handle is allowed to rise in a power position, it must be returned to "off" position before it can again be depressed.)

CAUTION: On this car, power must be shut off at section gaps.

5. When you wish to reapply power while running, depress handle, move to first point and pause momentarily. Then notch up controller until you reach desired running point.

TROUBLE SHOOTING

DEAD CAR (BREAKER HAS NOT BLOWN)

1. Check that 600 volt power is being received.
2. If 600 volt is being received, replace Master Control Fuse.
3. If car still will not move, change ends and attempt to operate from other cab.
4. If car still will not move, cut out all motors and have car dragged or pushed to terminal.

DEAD CAR (LINE BREAKER HAS BLOWN)

1. Shut off power.
2. Move Master Control Switch to "Reset" position momentarily, then restore it to "on" position.
3. Apply power.

If breaker does not reset, repeat above steps.
If breaker still does not reset,

1. Stop car.
2. Locate Overload Reset Device (underneath car on right side as you face No. 1 end. Overload Reset is a plunger type switch.)
3. Pull Overload Reset Plunger toward you, then release.
4. Proceed.

If breaker blows repeatedly, check your controller operation. If breaker continues to blow even when control is fed up very slowly,

1. Stop car.
2. Locate Motor Cut-Out Switch (underneath car on right side as you face No. 1 end.)
3. Lift handle of Motor Cut-Out and move one point to left. This cuts out Nos. 1 and 4 motors.
4. Return to cab and apply power. If breaker does not blow, proceed.
5. If breaker blows again, return to Motor Cut-Out Switch and move handle one more point to the left. This cuts out Nos. 2 and 3 motors and cuts Nos. 1 and 4 back in.
6. Return to cab and apply power. If breaker does not blow, proceed.
7. If breaker blows again, move Motor Cut-Out Switch to last point. This cuts out all motors and car must be dragged or pushed to terminal.
8. Report defect to Line Supervisor.

REVERSER TROUBLE

If car will not move in direction which you have selected on controller,

1. Locate reverser manual handle (located on left side of car as you face No. 1 end).
2. Move handle to direction in which you wish to travel.
3. Return to cab and apply power. If car moves in direction you desire, proceed.
4. If car still will not move in direction you desire, cut-out all motors and have car dragged or pushed to terminal.
5. Report defect to Line Supervisor.

BRAKE TROUBLE

A. If brakes cannot be released,

1. Move brake valve handle to Emergency position.
2. After brake pipe pressure drops to 0, move handle to Release position. If brakes release, proceed.

If brakes fail to release, repeat steps 1 and 2 above.

If brakes still fail to release,

1. Cut out PUMP.
2. Set hand brake if there is any possibility that car can move when brakes release.
3. Open drain cocks on both main reservoir and auxiliary reservoir and leave open until brakes release.
4. After brakes release, close both drain cocks and start PUMP.
5. When Duplex Gauge shows 70 pounds brake pipe pressure, proceed.

B. If brakes apply while running even though you have not made a brake application,

1. Move brake valve handle to Emergency position at once (this prevents loss of main reservoir pressure).
2. When car stops, locate the cause of application and remedy before proceeding.

C. To stop with reverser,

CAUTION: The braking effect produced by this method is very severe and cannot be regulated. This method should only be used when every other means of stopping the car has failed.

1. Move reverse handle on controller to opposite position from direction in which car is moving.
2. Move controller handle to first point.

3. Leave reverse handle and controller handle in this position until car comes to a dead stop, then shut off power. Once moved to reverse, the reverser must not again be touched until the car has fully stopped.

LOCATION OF OPERATING ITEMS

1. Train Phone Connections - at each end of car, opposite Motorman's position. Motorman must secure a train phone whenever Line Car is in service. Standard train phone codes and procedures will apply.
2. Car Body Lights and Tower Lights - switches located in Switch cabinet behind Motorman's position at No. 1 end.
3. Heat Switches - two switches, marked No. 1 heat and No. 2 heat, located next to Master Control Switch above side window to right of Motorman's position at each end of car.
4. Headlight and Marker Light Switches - located behind and above Motorman at each end of car. When Line Car is in service, marker lights must be turned "on" on both ends of car. Headlight must be on at Motorman's end when car is on any operating track.
5. Sand Box - located at each end beneath Motorman's seat. Motorman is responsible for filling box.
6. Sand Key - located between controller and brake valve at each end. Sand is spread under nearest wheels while valve is held open.
7. Windshield wiper control - cylinder is located directly below windshield at each end. Control valve is located to right of cylinder on air pipe.
8. Defroster - located at right center of windshield. Control valve on pipe to right of defroster
9. Whistle Cord - located to left of windshield next to Duplex Air Gauge.
10. Foot Gong - in floor at operating position at both ends of car. Use gong warning in preference to whistle when moving at low speed.
11. Conductor's Bell - bell cord runs the length of car. Standard Train Bell and Buzzer Signals (Rule 129) apply.
12. Lineman's Bell - bell on roof of car operated by Linemen. Standard Train Bell and Buzzer Signals (Rule 129) apply.
13. Gauge Light - located to left of front window, above Duplex Air Gauge. Cover can be lifted to provide cab light. Switch located in Switch Cabinet behind Motorman's position at No. 1 end. Labelled "Platform Light Transfer"; substitutes vestibule light for gauge light.