

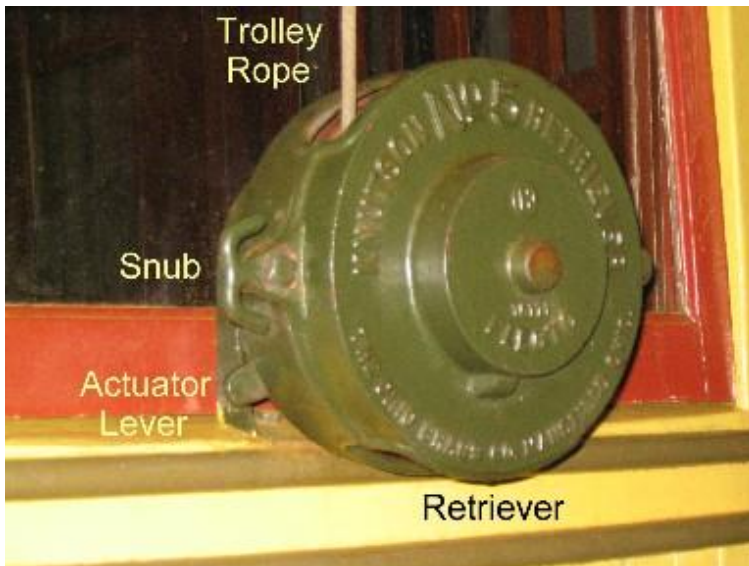
# Duluth St. Rwy. No. 265 LOCATION EXERCISE



Locate each item given and explain where you found it. If you have any questions, be sure to ask the trainer about them. Identify the purpose and manipulation of each item

You may follow any sequence that is convenient for you, but be sure to locate every item indicated herein.

## A - Retriever and trolley rope



The retriever, at the center rear of the car, acts as a reel to keep the trolley rope taut. If the pole should leave the wire, the retriever yanks it back down to limit damage to the pole and the overhead wire system. **Keep hands clear of the rope if actuating the retriever manually!** Few transit systems used retrievers on most cars. More common was a “catcher,” which also reels the rope but serves only to limit the pole flying upward if it dewires. It looks very similar to this retriever, but has no big center bulge.

## B - Battery charger plug



The battery charger plug is under the rear bumper of this car, just to the right (gate side) of the coupler. This ***must*** be plugged in at all times the car is in the barn. ***It must be unplugged before the car is moved out of the barn.*** The battery and charger are in the rear platform under the pole side rear seat, next to the bulkhead in an enclosure. They power the ditch lights and operators' radio that were added to this car by the Museum.

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## C - Air tank drain valves



There is one bleeder valve for each of the two air tanks on this car. The valves should be open (rotated 1/4 turn from the way they are shown) when the car is parked in the barn and chocked. They should be closed (handles as shown) at any time the car is in use. Moisture builds up in the tanks while in use, and opening these valves with pressure up allows the water to drain out.

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## D - Barn chock



The barn chock is a steel wedge with a J-shaped handle used to prevent the car from moving when the brake air is not pumped up. This chock should be placed before bleeding down the tanks, and not removed until air pressure is built up. When the car is out on the line, the chock chain (see figure J) is thrown between the wheel and the rail. Be certain all chocks are removed after air pressure is up and before trying to move the car.

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## E - Outside door control.



This control allows the crew to open and close the front doors from outside the car when the air pressure is up. It is located above the fender hook on the pole side of the car. Pushing the knob toward the car opens the doors, pulling it outward closes the doors. This is mechanically linked to the front door control lever inside the car.

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## F - Backing controls



These controls are used when backing the car. Speed and direction control is handled from the controller at the front, which was usually set to the first or second controller notch.

- 1 - Start
- 2 - Stop
- 3 - Ditch Light indicator
- 4 - Ditch Light switch (3 and 4 both added by the MSM).

The airbrake valve is shown in the LAP position and folded away, which is its normal setting for forward movement. These controls were used so the motorman would have a better view when backing the car at wyes or into a storage track.

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## G - Rear intercom signal



The intercom button is above and on the post to the right of the backup controls. The intercom is used to signal between the motorman and conductor. Standard intercom signals are used.

The object below the intercom button is a rough-surface brass plate used to strike matches.

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## H - "Open/close Door" signal button



These buttons are used to signal the motorman to open and close the rear doors. There are two of these buttons located on the bulkhead, one on either side of the door opening.

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## I - Canopy (main) switch



The canopy switch is located below the rear platform canopy of the car, on the post to the left of the center rear window.

(APRIL FOOL! – This one is a fake, installed for appearances only! All the primary power controls are at the front of the car!)

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## J - Pole side (left) controls and fittings



The items shown here are to the pole side (left) of the operator:

- 1 - Peter Smith coal-fired water heater
- 2 - chock chain (yellow, under the dustpan and brush)
- 3 - air compressor controller
- 4 - spare fuses
- 5 - motor controller

## K - Fuses and switches



### Switches:

- 1 - Compressor
- 2 - Lights
- 3 - Canopy (main) switch

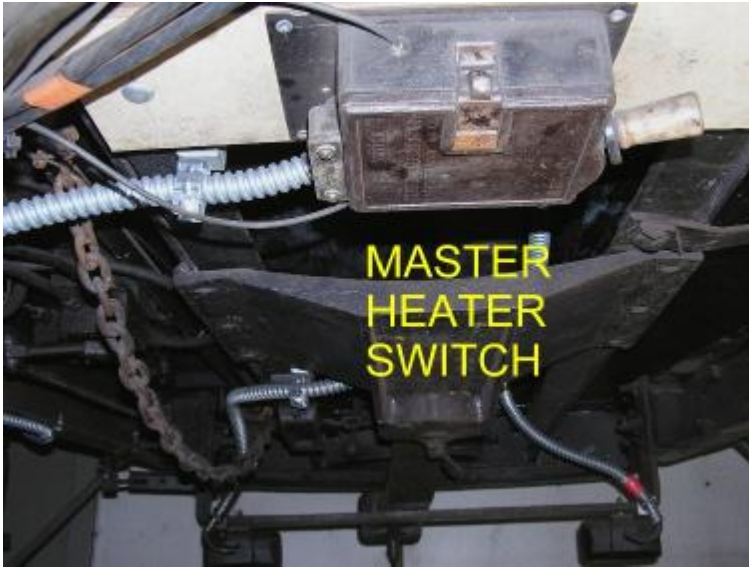
### Fuses are:

- 4 - Controls
- 5 - Lights
- 6 - Air compressor

**CAUTION: These fuses and switches operate at 600 volts DC. DO NOT change fuses with the pole on the wire!** These are located above, behind, and to the left of the operator. The canopy switch is shown in the ON position. Moving the lever to the left turns off all power to the fuse box and controls. This switch is not an automatic circuit breaker in this car.



## L - Master Heater Switch (Photo by Dennis Stephens)



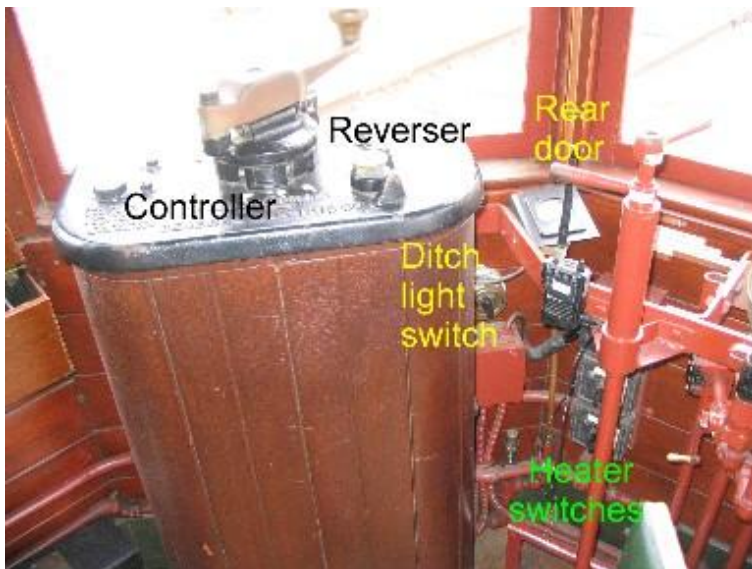
The heater master switch is under the front platform floor. A 600 volt DC fuse is inside the box that contains the switch. The photo looks toward the front of the car. The ON and OFF positions are marked on the cast cover. When on, interior heaters are controlled by snap switches on the dasher just to the right of the controller (see next photo). The chain to the left of the switch is for the hand brake.

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## M - Controller and door controls



The controller regulates the speed and acceleration of the car. It is shown in the “OFF” position with the reverser in “NEUTRAL” and the key removed. The key fits on the reverser post just to the right of the controller handle.

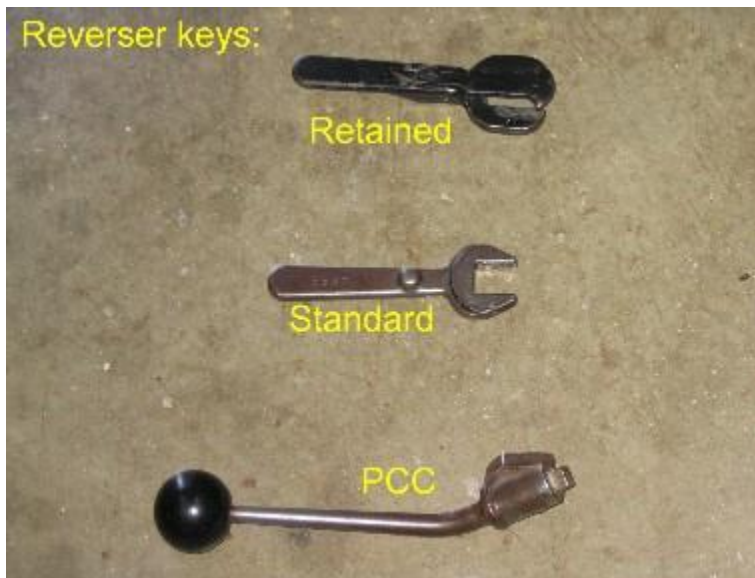
The door controls are straight across when the doors are closed (shown by the rear door handle). When open, the handles point forward (shown by the front door handle). The front door can be operated from outside the car.

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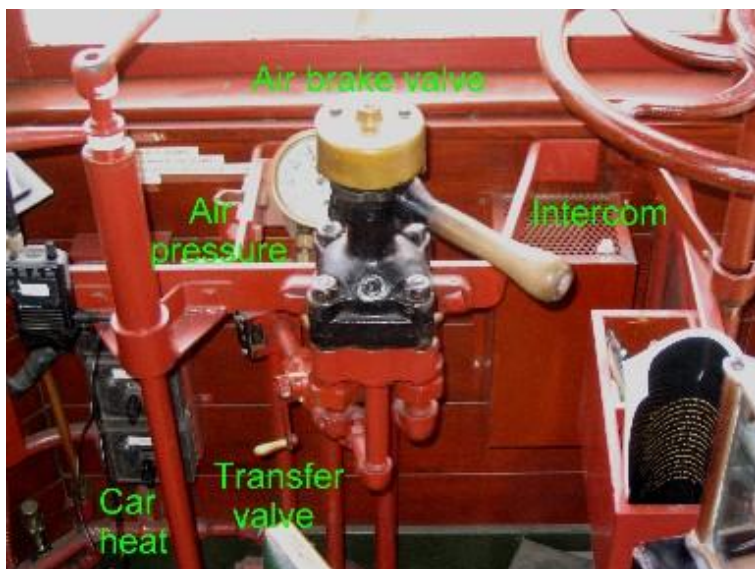
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## N - Reverser keys



No. 265 can use either of the retained or standard reverser keys. The retained key has a clip that fits over the top of the reversing switch post on the controller to prevent the key sliding off when in neutral (off). It is released by pressing down on the retainer at the handle of the key.

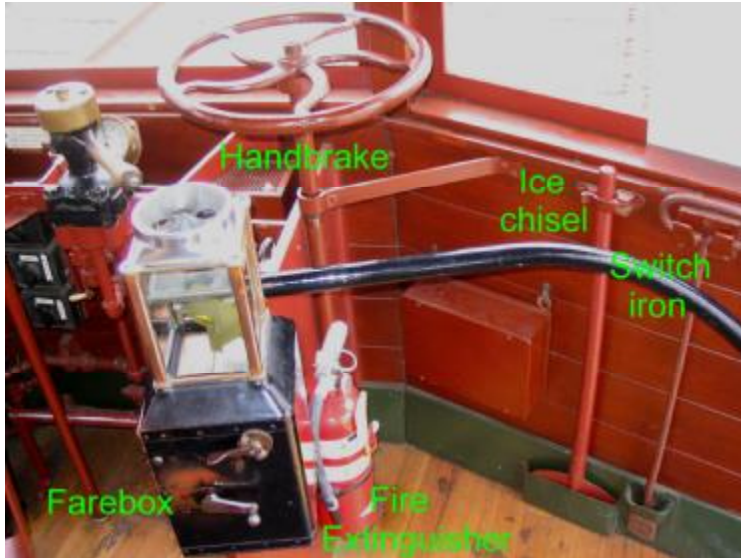
## O - Air brake controls



The air gauge shows the tank pressure (red hand) and brake cylinder pressure (black hand). The air brake valve is just to the right of the gauge, and is sprung to the emergency stop position as shown; it must be held in any other position. The transfer valve gives brake control to the backing controls at the rear of the car; it is shown in the backing (reverse) position; the handle pivots up and forward to use the front brake valve. To the left above the radio is the motor ammeter.



## P- Farebox and handbrake



The handbrake can be used to park the car along the line, but we usually use the chock chain (see figure J). The farebox is used to collect tokens from boarding passengers. Periodically, the small lever just under the window should be operated to dump the tokens into the counter portion of the farebox, and the crank is rotated until all the tokens are counted. This keeps track of how many paid fares have been collected during each shift. The count is read at the start and end of each shift.