TCRT No. 1300 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.

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 serve 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 passenger compartment 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 (bleeders)**

There is one drain (bleeder) valve for each of the two air tanks on this car. The valves should be open (as shown) when the car is parked in the barn and chocked. They should be closed (handles rotated ¼ turn from that 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.
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 I) 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.

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 gate side of the car. Pulling the knob out opens the doors, pushing it toward the car closes the doors. There is a matching floor knob inside the car close to the top step. The front door switch must be in the “Close” setting for these controls to work.
F - Backup switches and airbrake control

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 notch.

1 - Start
2 - Stop
3 - Backing Ditch Lights
4 - Rear Gong Button
5 - Airbrake Valve
6 - Fire Extinguisher.

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

G - Intercom bell and pull-cord

The intercom is used to signal between the motorman and conductor. Pulling the cord toward the bell rings at the opposite end. The standard intercom signals are used.

Between the windows at the top of the post indicated is one of two buttons that are used to signal the motorman to open and close the rear doors. The other button is two window posts to the left of this view.
**H - Electrical cabinet**

Behind the motorman on the pole side are the spare fuses and electrical cabinet. In the electrical cabinet are the accessory switches and the circuit fuses for this car. The bottom of the electrical cabinet houses the controller for the brake air compressor.

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**I - Electrical fuses**

These cartridge fuses protect individual electrical circuits in the car.

The active fuses in the electrical cabinet are:
1. Doors
2. Controls
3. Air Compressor and its controller
4. Lights
5. Front Platform Heaters Group 1
6. Front Platform Heaters Group 2
7. Main Body Heaters
8. Rear Platform Heaters
J - Electrical switches

The switches control the various circuits in the car.

The switches are:
1 - Doors and Controls
2 - Air Compressor and its Controller
3 - Lights
4 - Front Platform Heaters Group 1
5 - Front Platform Heaters Group 2
6 - Main Body Heaters
7 - Rear Platform Heaters

K - Items on the pole (left) side of the motorman

The hand brake can be used to park the car out on the line, but we usually use the chock chain instead. If the hand brake is used, be sure to release it completely before trying to move the car!

The motorman’s seat can be lifted out from next to the controls and stored out of the way in the seat storage socket. This was used while in town, as the motormen were not allowed to sit while running within the Cities on streets.
L - Controller and wiper

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 wiper clears the center window only, and is controlled by a small valve just to the right of the wiper motor.

M - Reverser keys

#1300 can use either of the retained or standard reverser keys. The retained key has a clip that fits over the top of the reverser switch post on the controller to prevent the key sliding off when in the neutral (off) position. It is released by pressing down on the retainer at the handle of the key.
N - Brake and door 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 changeover valve gives brake control to the backup controls at the rear of the car; it is shown in the forward position. Between the changeover valve and the fare box are the motor ammeter and trolley voltmeter for the electrical power. Panel switches control the doors.

O - Canopy (main) switch and foot controls

The canopy switch is located below the door controls on the dasher at the front of the car. This is the master switch for the car and is an automatic circuit breaker. It is shown set to the ON position. If the handle is moved to the left, all power is removed from the car. The snap switch to the left of the canopy switch is used to turn the front “ditch” lights on and off.

Note there is both a mechanical gong and air gong on this car. A standard air hose can be connected for air tools.
P. Switch iron and farebox

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.

The switch iron was used to throw the track switches in city streets.
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