

# DL&W Keyser Valley Caboose #’s 850 to 910

**History :** These cabooses were built between May 1948 and July 1954 by the railroad in their



Keyser Valley Shops. There is plenty of historical information available for you in Larry DeYoung’s books and by contacting Steamtown’s Historian, Pat McKnight. I have included a data sheet prepared by Mike Del Vecchio for your use. There is an in depth document on the reconstruction of their caboose which was compiled by Mark Morgan and Thomas Campion in 1995 available at Steamtown on caboose 889. We used the Steamtown Keyser Valley caboose for the measurements for this model.

**Help** If you are missing anything, or think you are...or if you have questions, or can’t figure it out, just call me and I’ll help out. 302-322-7131 Joe Lofland

**Decals :** Please contact Paul Tupaczewski at [Prime Mover Decals](#), 50 Livingston Ave., Dover, NJ 07801 Use PMD - 029 for DL&W, PMD – 033 for EL “Spartan Red”, PMD- 035 for EL- GMY, or PMD – 038 for EL “Early Red”.

## Putting It Together

Use medium cure ACC for those parts that need adjustment or alignment once joined and fast cure for those which self locate or are clamped together. A clear drying, non-solvent adhesive such as Weldbond is recommended for clear materials should you chose to glaze the windows.

Remove flash from body and the other resin parts. Use a sharp X-Acto blade, fine sandpaper, a fine emery board and/or files. Place the body on a piece of fine sandpaper on a flat hard surface and lightly sand any irregularities to ensure a tight fit with the frame.



Test fit the roof halves. They should snap in with light pressure when the car end is seated and then the cupola end is pressed down into place. Only very light sanding might be necessary.

Now drill out all the dimpled holes for grab irons on the body and the resin parts for the end beams. Additionally use the enclosed jig to drill the holes in the end of the car body for the eyelet supporting the “L” shaped car end grab irons and the vertical or horizontal (check prototype photos for type that applies to the caboose number you are modeling) small grab irons near the roof on the car end. Jig works by placing the lower corner of the body end into the corner in the center of the jig with the vertical car side against the long side of the jig. Also drill angular holes to mount brass wire simulating flag brackets. If a smoke jack brace is desired drill a hole through the ring 2/3 of the way up the jack and perpendicular to the cap. Otherwise cut and sand the ring off the smoke jack

For radio equipped cabooses drill a hole in the center of the cupola roof to accept a piece of .035” styrene rod, protruding 9” from the roof top. Top this rod with a very small square of .005” styrene or a piece cut from resin flash such that it just hangs out over the edge of the rod. This antenna is correct for DL&W cabooses. Some of these cupolas were fitted with “firecracker” antennas after the merger. These antennas are available in the Details West line.

Now ACC resin detail parts to the body. These include the small “U” shaped marker brackets, and the small, round electric marker lamps on the ends of the caboose near where the corner meets the roof overhang, on those cabooses that were equipped with electrical systems. The seven triangular shaped window rain gutters should now be attached for

Lackawanna and EL cabooses without widow guard screens. If doing an EL rock guard version, install the etched frames and screens now (they may be left off and added after painting if desired). Attach the roof halves to the body insuring they are tightly seated before cementing with ACC. For an EL version with black roof it is easier to leave the roof off till after painting, avoiding the need to mask the roof halves.

The smoke jack may now be glued to the roof on the side of the body with only three windows, with the inboard edge of the jack 2 scale feet from the cupola on the end with only one window. If the brace option is selected, drill a hole directly above the cupola end window frame to accept a piece of wire from the hole through the smoke jack ring brace. The joint may be reinforced by drilling a hole in the center of the jack base for a piece of brass wire and a corresponding hole in the roof.



Now install all body grab irons and the flag holders. While the ACC is handy cement the loose side piece to each of the 4 step assemblies and set aside to cure.

While the body joints cure drill and tap the truck bolsters for the long truck mounting screws. As there is a tendency for the bolster to spread slightly it may be necessary to carefully ream out the mounting hole in the truck frame to get a fit. Caution-go slowly with the reaming and check frequently. The frame should turn freely on the bolster without any slop between the bolster and the truck.

Now ACC the resin end beam with brake wheel pedestal to the etched end railings. Check the fit carefully and either use a medium set ACC or clamp the pieces to insure good alignment. While waiting for this joint to cure, bend the splash guards. The guards have bend seams etched in them and when bent correctly will form a square "Z" shape. Both the long and short guards mount on the platform side of the end railings with the bend extending outward under the railing and then 90 degrees toward the brake wheel column which it will abut when installed. Before bending orient each piece to the end railing to insure you are bending in the right direction.

One technique for bending is to mount the guard in a small vice clamped just below the first bend mark from the end. Bend the piece in the CORRECT direction 90 degrees. Hold a sturdy metal straight edge such as the end of a large file, some bar stock or a chisel over the next narrow section of the guard, against the bend etching, and fold the rest of the splash guard up 90 degrees. Vise-grip pliers and an anvil or surface plate with sharp edges (such as a saw or drill press table) or a combination of jewelers pliers are other techniques.

Once these parts are square they can be ACC'd to the rear of the railings with the bottom edge level with the top of the end beam. The part is seated level when the ladder rung appears level in the splash guard cut out. Now cut the chain from the bottom of the brake wheel housing and attach the housing to the inboard side of the brake wheel pedestal. Attach the brake wheel. The chain can be cemented between the two beams of the brake wheel pedestal on the opposite side from the wheel. Set aside to cure.

Now install the underbody brake details according to the diagram. At a minimum you should install the brake reservoir, valve body, and cylinder as they are quite conspicuous on the prototype.



Locate the coupler box and drill and tap for a 2-56 screw. This is easily done by test fitting the end rail /beam assembly to the end of the frame. While holding this assembly together slide the base plate of the Kadee couple box onto the frame such that the flange on the end of the plate is roughly centered in the notch of and rests snugly against the outside of the end beam. Mark the center of the mounting hole. Double check that the mark is dead center with the frame end, and then drill and tap the mounting hole. Install the base plate only, which will serve as a jig for mounting the end rail/beam assembly.

With a file or motor tool insure that the notch in the bottom of the end beam is smooth by removing any stainless steel or resin irregularities. Now test fit the end beam/railing assembly into the notch formed by the couple box base flange and the end of the frame. This joint can be made snug by loosening the coupler screw and sliding the base inboard. When satisfied that the end beam assembly is square with the frame ACC the beam to the frame trying to avoid cementing the couple box base plate to the frame of end beam. Repeat for the other end.

At this point test fit the body to the frame. The three window side of the caboose goes on the side of the frame that the brake valve is mounted on so there is a right and wrong way. While placement of access doors and tack boards along the frame sides varied from caboose to caboose, as a rule those equipped with flush toilets (displaying a star above or below the number) had an access door mounted on the right end of the frame of the three window side, just to the right of the inboard truck journal. An identical door appeared on the opposite side of the car in the same relative position.



Complete detailing the frame by adding the brake line air hoses and hand brake pivot. Also install the grab irons to the end beams. The cut levers ran through the base of the brake wheel pedestal. Simulate this by cutting the handle end of the cut lever from the rest of it and insert the end in the small hole in the pedestal base. Bend the remainder of the cut lever and cement it on the opposite side.

The caboose steps are a tight fit between the end beam and the frame. A little light work with a motor tool and a small file on the frame pocket and the top third of the step side assembly will insure a snug fit. When happy with the alignment ACC in place.

The body is completed by the installation of the roof walk and grab irons. Bend the roof platform at a slight downward angle from the roof walk and the etched bend line. Bend the tabs on the end of the roof platforms down at approximately a 45 degree angle. The fit is correct when the roof walk sits square on its supports and the end platform is close to, but not touching the roof, and the tabs rest on the roof edges. ACC the assembly in place. Again test fit the body to the frame. Locate where the end ladders interface with the roof platforms. Center the roof platform grab irons on the ladders 3 or 4 rows of perforations into the platforms. Use the perforation holes for mounts.



### **Painting**

Prior to painting wash the body and frame assemblies in warm water. A good grease cutter such as Simple Green insures a grease free surface for painting and pretty well degreases fingers of natural oils as well.

For the Lackawanna and early EL versions the entire caboose body was a boxcar red. Scalecoat #13 Boxcar Red is very close to an as new paint job. As repaints came due in the EL years the color used was more akin to Erie caboose red. Some cars received all red schemes while others got black roofs. Even later EL schemes were the reverse of the diesel scheme. Refer to the various Lackawanna and EL color books for variations in shade and weathering of the various paint schemes. Prime Mover Decals has complete sets for all three schemes.

You may want to decal the body before installing the stainless steel parts and window glazing if you intend to spray a sealing coat of clear or dulcote on the body.

The frame assembly and the platform grills are painted black.

When new the Lackawanna cabooses had natural aluminum window frames on the cupola end windows (cast on) and the sashes of all opening windows (stainless steel etchings). For relatively new cars the cupola end window frames

should be painted in aluminum. For older cars look to prototype photos for individual car treatments. Some appear to have had the cupola frames painted over, others all the window sashes painted over.

The same can be said of the smoke jackets above the base. Some appear as natural metal or metallic paint, others with boxcar red, while others in various stages of scorched paint and blackened metal.

## **Final Assembly**

Before final mating of the body and frame install the couplers and trucks and check for correct coupler height. Kadee washers or coupler shims can be used to raise the body on the trucks or lower the coupler box.

Install the etched stainless steel sashes, cupola side windows, and end doors in their recesses inside the caboose body. If glazing is desired cut a thin material such as Evergreen Clear sheeting to size and cement over the sashes with a product such as Weldbond. The cupola end windows had safety bars (stainless steel etchings) inside the window glass. If using glazing install in these windows before the etched safety bars. It is easy to model open windows on the caboose by cutting the top of the sashes off to the desired length and cementing the remainder in the recess. The side windows also had shades that could be drawn downward from the top of the window but that do not show when full up, drafting tape can simulate this feature for variety.

If the electric marker option has been selected, the resin pieces will accept small jewels or MV lenses # LS220 or 601 which come 4 red lenses to the envelope. If so inclined it would be an easy matter to electrically illuminate the markers with LEDs or mini-bulbs.

Test assemble the body and frame and weigh. If additional weight is desired use the self-adhesive weights supplied with the kit in the center of the floor.

The body may be ACC'd directly to the frame or styrene square lengths may be Acc'd to the floor to locate and reinforce the bond. When cured install the platform gratings on the end platforms. Trim them for a good fit. The body can be made removable by not gluing the ladder risers to the roof, and installing two sturdy, drilled and tapped styrene cross pieces in the body. The body can then be secured to the frame with longer truck screws or separate screws hidden between the frame rails.

Lastly trim the tops of the end ladder risers even with the top edge of the roof and ACC in place.