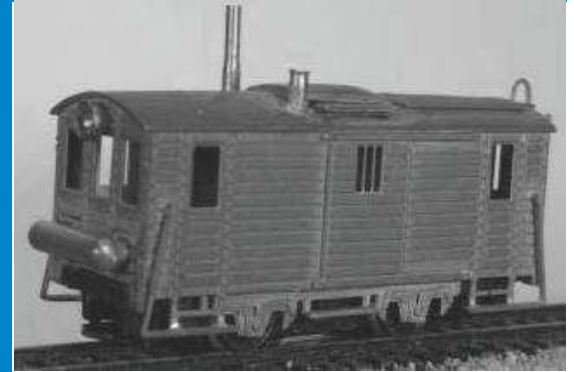
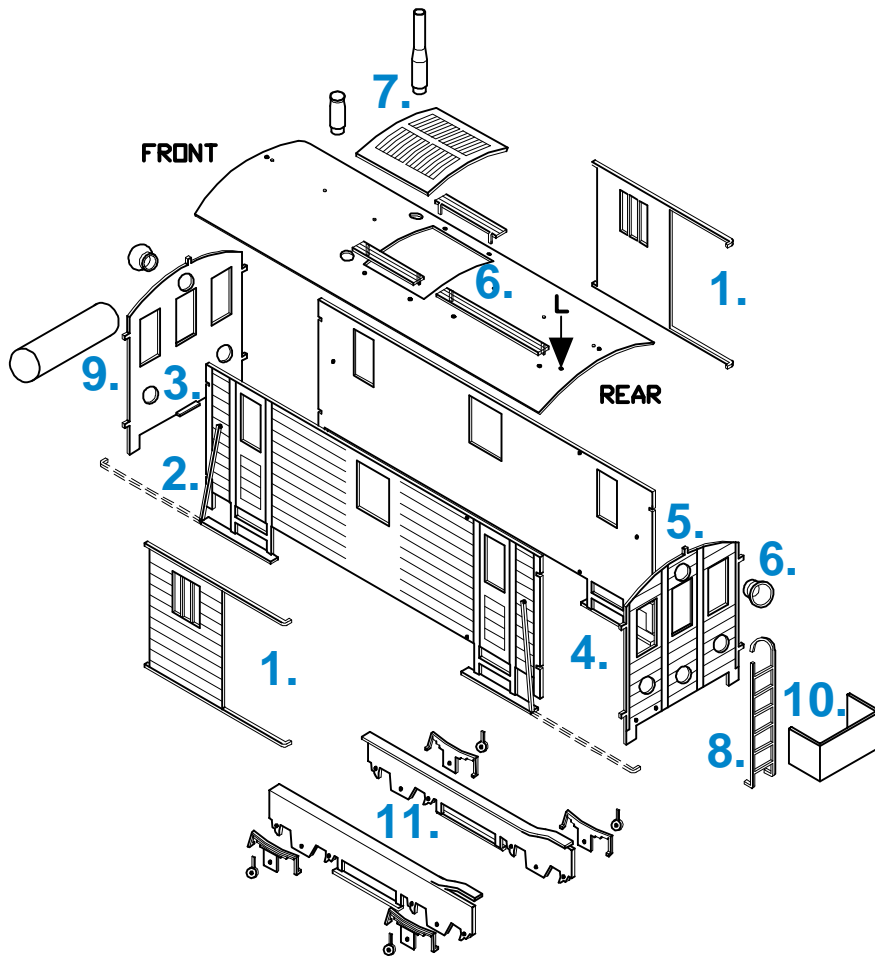


## Instructions (shell)



This instruction sheet has been designed for easy use. The numbered steps coincide with the blue numbers on the illustrations. Before cutting the etched brass parts from the fret, carefully study the assembly drawings. Many parts have locator pins which continue on as sprues that hold the fret together. These sprues should be cut very carefully, so they can function as locator pins to help the accurate assembly of parts, to minimize the chance for errors. All etched and drilled holes need to be re-sized with the appropriate drill or reamer. Fold lines are etched into the components, and made with the etched line inside the fold. Use a smooth jawed, wide flat billed plier to make the bends. Soldering. Use a small (2mm+/-) chisel tipped soldering iron. The 0.16 thick brass pieces require approximately 750F soldering iron temperature (25 - 30W). Use a small diameter solid core solder and a good liquid flux with a toothpick or a small brush as an applicator.

1. Bend the small locator pin ends of sliding door tracks, then push them into the corresponding holes of cab sides. Align sliding door with the edges of cab sides, then solder at the top and bottom edges.
2. Bend steps below doors, solder bent corners, then fold handrails, so the 90° locator pins fit into the corresponding holes. After soldering the handrail ends from the back side, solder bent corners of handrails at the step.
3. Fold small tab at the bottom of front panel, then solder full length of bent line.
4. Fit the two pairs of locator pins of front and rear panels into the corresponding notches of sides, then solder. Make sure the components are held square. A continuous solder at the inside of all four corners are recommended.
5. Fit roof over assembled cab, utilizing the top pins of front and rear panels and the corresponding holes of the roof. The roof should be oriented on the way, the single hole for the ladder (marked L) is located at the rear panel. For better fit (if necessary) the top edge of sliding door tracks can be filed in a slight angle. Solder roof to cab from the inside.
6. Fit headlights and roofwalk boards, then solder from inside.
7. Align roof grill slightly overlaying edges of opening, then solder inside. Fit, position and solder smokestacks.
8. Bend / form ladder, so the two locator pins fit into the corresponding holes of rear panel, while the half round top support fits into the hole (L) on the roof.
9. Align gas tank with the center line of larger holes of front panel, then solder inside.
10. Position sand box on the rear panel, so the vertical edges are just outside of the center and right side larger holes, then solder inside of sand box. Make sure the center hole remains fully open and accessible thru the sand box. This hole is designated to hold the shell on the Marklin locomotive chassis.
11. Fold top of side frames, form notched section of both side frames as illustrated, then solder bent line, leaving formed sections open. Fit leaf springs utilizing the bent locator pins, then solder. Final steps are to position and solder the four bearing housings to the side frame assembly. A small pin hdd thru the common holes could help with accurate alignment.

## Instructions (chassis)

The chassis of Marklin 8800, 8805 and 88051 0-6-0 steam locomotives can be used for this kit. After removing the steam locomotive shell, pull out the bumpers, remove motor brushes, pull off "dummy" side rod assemblies and snap off plastic cylinder. Remove clear acrylic wheel contact / brush holding platform, then carefully pull out the steel pins of both side rods. Using X-acto knife, cut off the side rod spacers from both rear driving wheels, so the whole wheel surface become flush, similar to the other wheels.

Next, the removal of center wheels. The older Marklin 8800 locomotive chassis have rigid gear shaft / wheel assemblies. To cut off the wheels from the center shaft, the wheel assembly need to be removed from the chassis. Use Dremel cutting disc or fine jeweler's saw to cut the shaft close to the wheels. File shaft ends smooth, then after careful cleaning, reinstall gear.

To remove the center wheels from chassis with "floating" axes (8805, 88051) no disassembly needed. The best suited tool for the job is the Xuron rail cutter. Slide the tool with open jaws between the wheel and chassis, then slowly close the jaws. If the shaft remains in place after the wheels are separated, pull it out with a pair of smaller pliers, using some force.

At this stage of work, if desired, the original Marklin couplers can be easily replaced with Micro-Trains 902 couplers (not included with the kit), just follow the coupler installation instructions.

To secure the clear acrylic wheel contact / brush holding platform, it need to be slightly modified. Using a small round file, the front center portion of acrylic need to be filed off (A) to clear for the replacement screw. Remove front gear cover plate screw, reinstall modified acrylic platform, install the 00-90 x 3/8" brass screw (included in the kit), place the white styrene spacer next to the front edge of acrylic platform, install brass front clamp securing with the included brass washer and nut (B). Reinstall brushes.

The side frames snap fit between the shoulders of chassis and the ears of acrylic platform (C).

