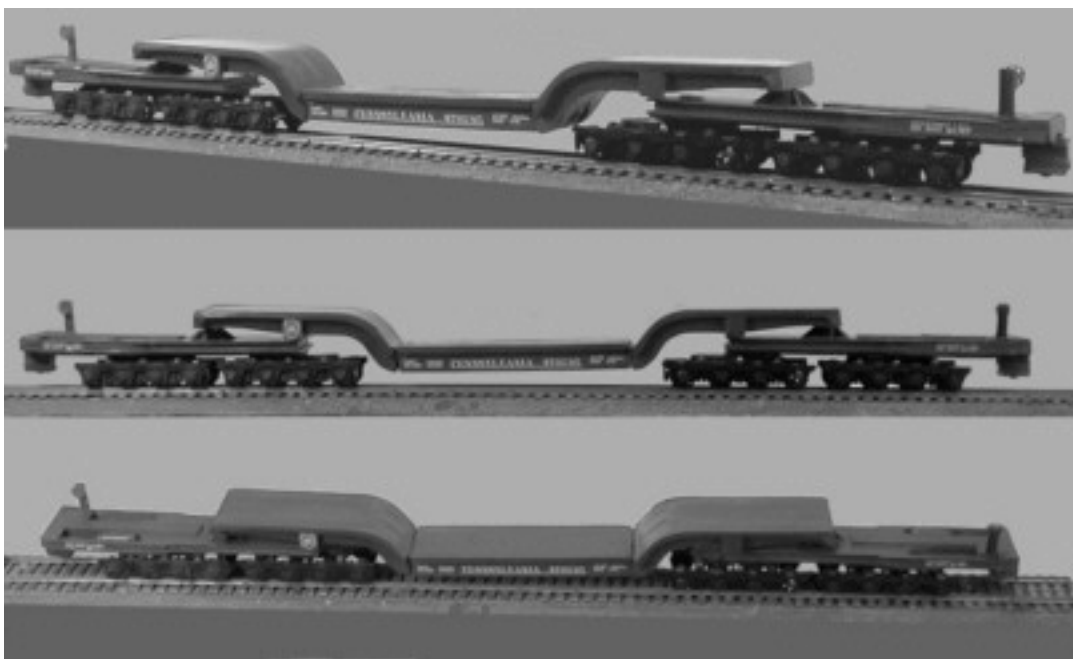


# CONCEPT MODELS

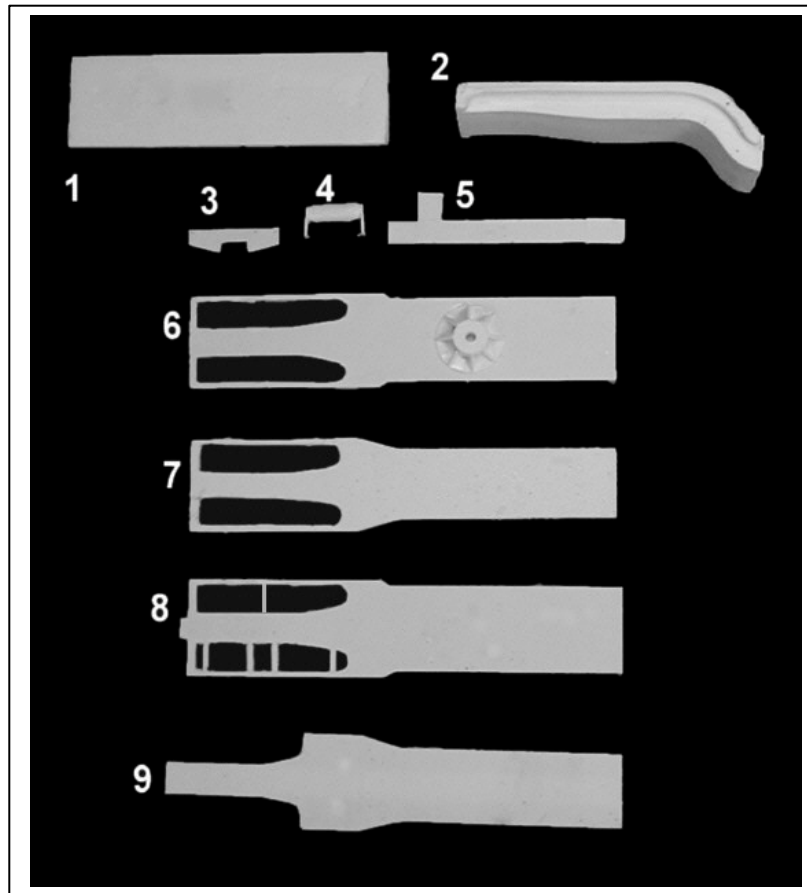
Web Address: <http://www.con-sys.com>  
Email: [concept\\_models@con-sys.com](mailto:concept_models@con-sys.com)

8810 El Toro Way  
Stockton, CA 95210



**INSTRUCTIONS FOR PRODUCT  
PRR 470245 SPECIAL FLAT CAR**

## PARTS PRR 470245 PARTS



Item No.	Part No.	DESCRIPTION	QTY.
1	9001-1	Floor	1
2	9001-2	End Girder	2
3	9001-3	End Fascia	2
4	9001-4	Main Air Reservoir	2
5	9001-5	Walkway	2
6	9001-6	Bolster Top	2
7	9001-7	Bolster Center	2
8	9001-8	Bolster Bottom	2
9	9001-9	Truck Bolster	2
10	1028	Coupler Pockets & Covers	2
11	9001-11	Brake Stand	2
12	9001-12	Lift Brackets	4

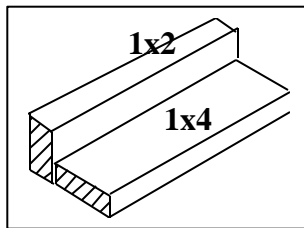
Part No.	GENERIC PARTS	QTY
1014	3/16" x 2-56 Screws	2
1016	3/8" x 2-56 Screws	4
	1/8" x 1'6" s.f. Tube	2
	Aux. Brake Reservoir	2
1018	Brake Valve	2
1041	Brake Wheel Mechanism	2
	Brake Wheel	2
	Small Pin	2
9001	Decals	1
9001	Instructions	1

## Tools

All basic model workers tools – files, motor-tool with fine burrs, hobby knife, Wood blocks for holding parts square, metal square, etc.

Drills: 1/8", #76, #72, #68, #50 (2-56 tap drill), #65

Music Wire .020" for handrails. Athearn stanchions for tanks cars.



This fixture is a great aid to assembly. It helps hold parts square while gluing and aids in drawing horizontal lines on tanks for tank cars.

## Instructions

**NOTE:** This kit consists of resin castings and must be assembled with an ACC cement (not provided) – both the thicker types as well as the thin. Solvent cements will **NOT** bond the parts together! They can dissolve them. Resin parts are more fragile than common styrene plastic used in injection molded models. Use reasonable care in handling and do not apply any solvents. The illustrations at the front show the general layout of parts for the car. Work very carefully when positioning the parts for gluing. ACC cements adhere very quickly and permanently.

## Gluing with ACC Cements – USE WITH CARE

ACC cements allow the modeler to work very quickly. A general rule is to use the thin cements to glue long joints taking advantage of capillary action that makes the cement run the length of the seam. The thicker cement is suited to applying large area parts to each other. An accelerator can be applied sparingly. One technique is to apply the glue to one part and the accelerator to the other part to be joined. I also use a Q-tip to apply a minute amount of accelerator to the glue after the parts have been joined. The accelerator triggers the ACC cement to set very quickly. It is only slightly slower with the thicker cement.

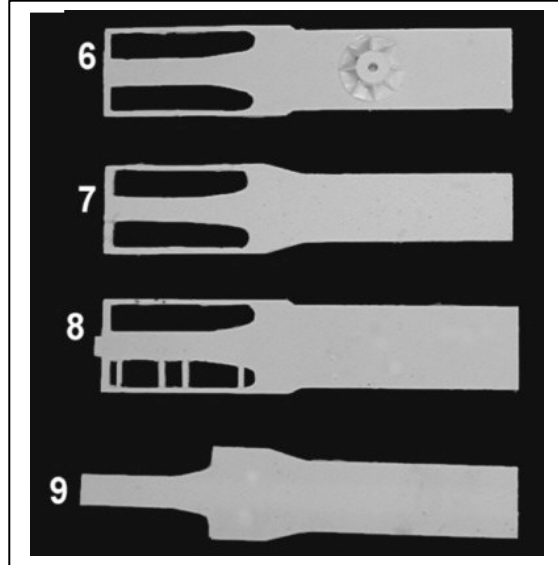
### **WARNING**

Some parts have lead encapsulated within them. In the event the lead is exposed for any reason, do not allow it to remain on the skin. Dispose of any lead shavings that may result. Obey all safety precautions of all suggested cements and assembly materials.

**PREPARATION** Wash the parts before assembling with a dish washing detergent such as “Dawn”. Rub lightly with a soft sponge.

## ASSEMBLY

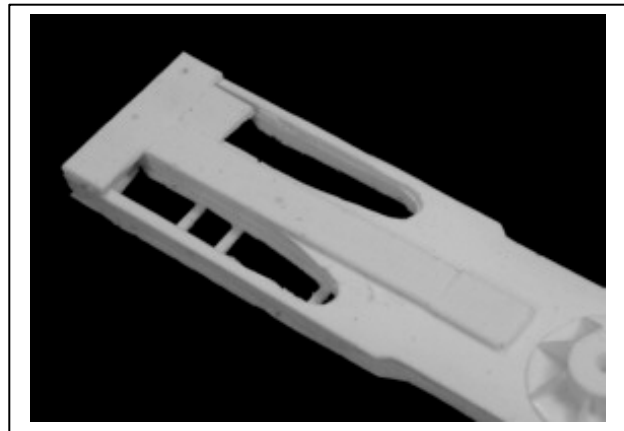
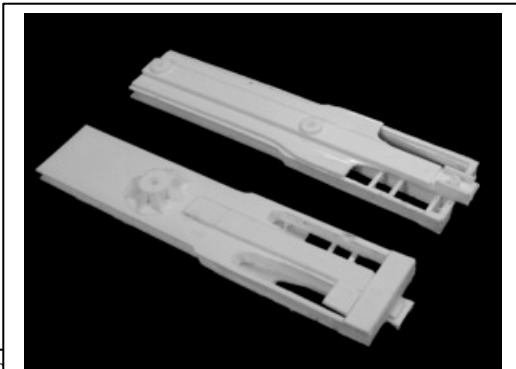
**1** Parts 6,7,8 make up the bolster.  
Center parts 6 and 8 at the coupler end  
to sandwich part 7. The Bolster Bottom  
(8) must have the tank supports oriented  
as shown.



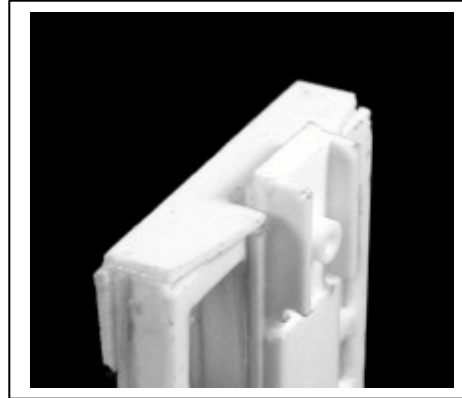
**2** Add Truck Bolster to the bottom  
of the car end subassembly matching  
the inboard end and letting the  
coupler mount extend slightly.



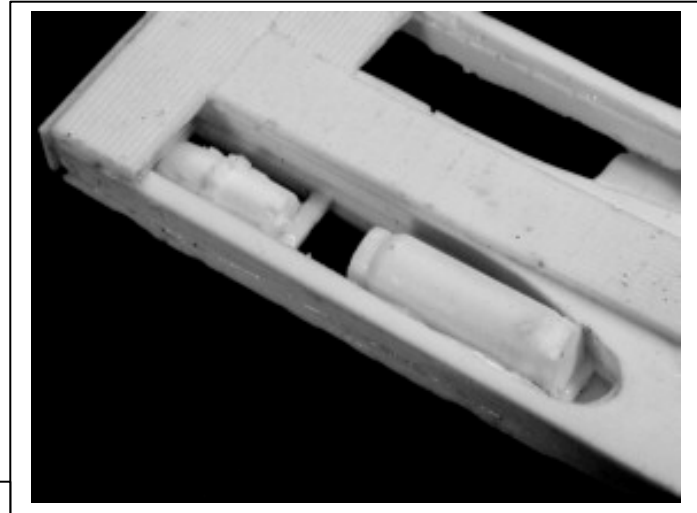
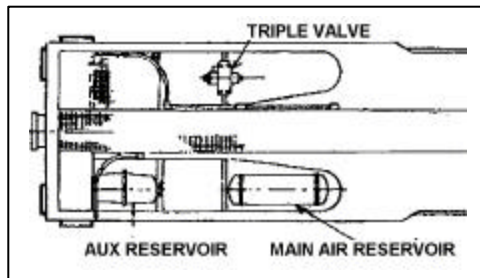
**3** Add the Walkway (5) as shown or the  
right. The car ends should appear as shown  
at this point.



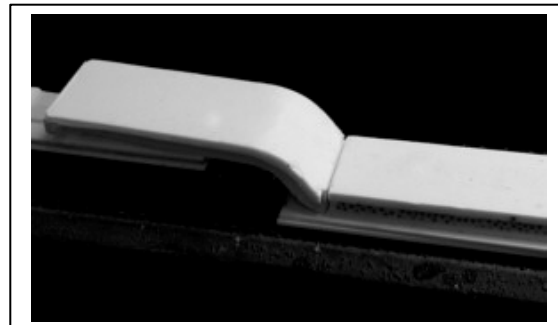
**4** Install the end fascia as shown.



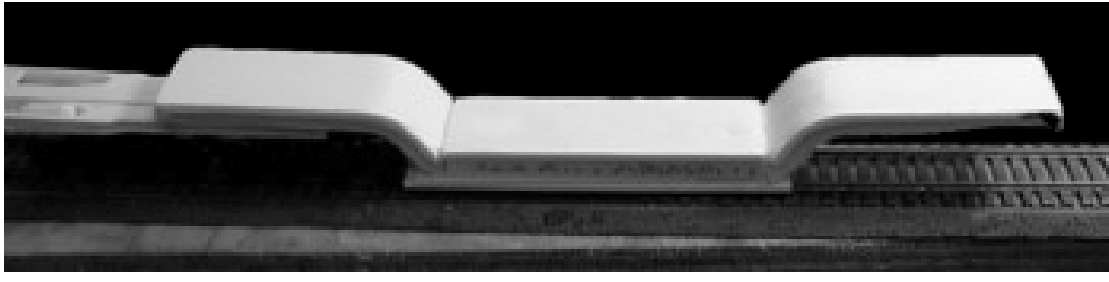
**5** Install the tanks on the tank supports as shown. Trim off the Main Air Reservoir mount legs even with the tank. Add the triple valve as shown. Do this on both ends of the car.



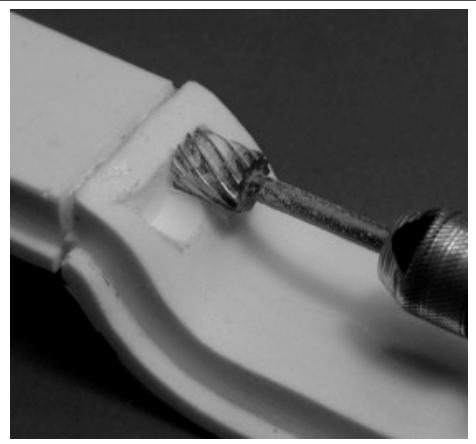
**6** **Do this step carefully.** You will need the assembled car ends mounted on trucks for this step. Place two pieces of .80" thick plastic on a test track and position the Floor (1) and one of the End Girders (2) as shown. This will give maximum clearance. If you want a more prototype appearance and are running on a well leveled pike with minimal vertical elevation changes use a single piece of .080" plastic. The end girder will rest on the car end on the pivot point. Apply ACC cement to the joint and **let it set until the joint is firm.** After the cement has set, turn the two pieces over and fill any opening between the two parts with ACC cement. It may be necessary to do this in small increments to get the cement to set without just running out the sides. Zip Kicker or any ACC accelerant is useful here.



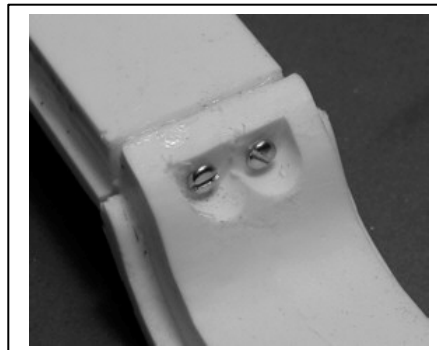
7 Once you have the first side done turn it end for end and repeat the gluing process for the other girder. Use the same car end to rule out any variation in height.



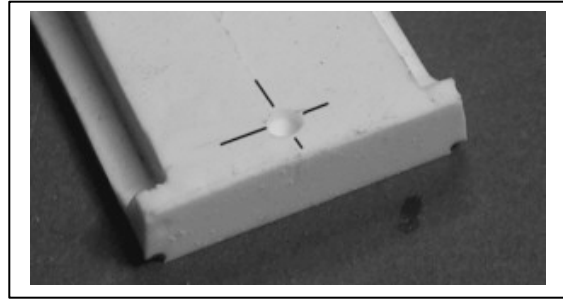
8 After the subassembly is firmly glued, use a large cutter in a motor tool and cut as shown.



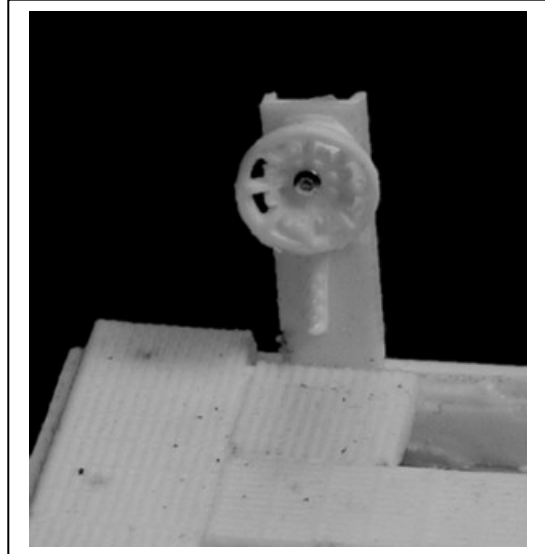
9 Drill a very short distance in the end girder but not into the floor with a 2-56 clearance drill. Drill and tap into the floor for 2-56 screws. Add the 1/2" x 2-56 screws as shown. This will improve the assembly's ability to withstand handling in club environments.



**10** Measure 3/16" from the end of the underside of the girder and make the center. Drill a very shallow 1/8" hole.



**11** Glue the Brake Wheel Mechanism to the flat side of the Brake Stand. The little foot is at the bottom. Add the brake wheel using a small pin. Glue the completed brake stand to shown with the wheel facing inward as shown.



## PAINING

If you followed the instructions for cleaning the parts before assembly, you are ready to paint. A primer is recommended. Allow to dry overnight before proceeding with any of the color coats. When painting with white do not over dilute with thinner.

Now that Floquil has left the scene I'm buying primer from ACE hardware's enamel part of their rust proof line. A half pint goes a long way. Dark colors can be diluted more than 50-50. Two coats with plenty of drying time in between are recommended. White on top of primer is recommended for light colors yellow through red. It improves the color.

After painting, overcoat entire car with Testor's Glosscote prior to decaling. If you decal over the Glosscote as soon as it is just dry to the touch, decal adhesion is improved.

## DECALING

The decals provided are a very thin film decal film. Success with these decals depends on following these instructions.

- 1) Cut out the decal segment you are going to apply with a **SCISSORS**.
- 2) Dip the decal in warm water which has had 1 drop of DAWN kitchen detergent. Do not leave the decal to soak in the water.
- 3) Slide the decal directly onto the wetted surface with a small brush. Position with the brush. Remove excess water with a tissue.

NOTE: The glue used for the decal sheet is different than what has been used in the past. The water does not dissolve the glue. Water causes a chemical reaction causing an almost immediate release of the decal. For this reason once the decal has been wetted it must be used quickly. It cannot be re-wetted later for use.

- 4) Top coat the decals with Testor's Dullcote for best results.

