

USA Trains Streamliner Observation Car End CamPac Box™ Install Guide

by Ted Doskaris, October 8, 2025

CamPac 3-D printed coupler boxes for USA Trains metal streamliner car's observation end



USA Trains aluminum streamliner observation car end includes factory metal coupler box assembly with rigid mounted coupler low to the track. To replace it, a Kadee centerset swinging coupler from the 907 kit (fitted to a CamPac Box™ and adapter plate) are used - aligning to Kadee 980 gage.



Factory rigid coupler
does not swing side to side

↑ From that



To this ↓

Example shown with minimal
coupler projection



Kadee swinging coupler
fitted in CamPac Box™ on
CamPac Adapter Plate

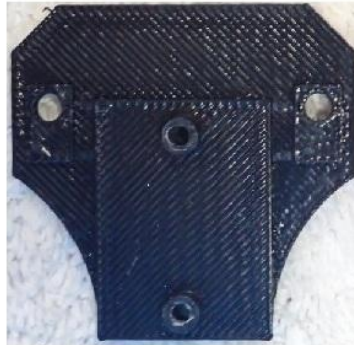
For operation on
20 foot diameter
or greater curves

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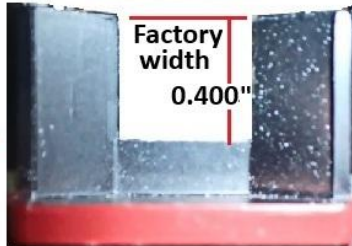
There are two available coupler projections to choose from – example above is minimal for best appearance. CamPac adapter plates determine coupler projection as shown on next sheet.

CamPac Boxes™ and Adapter Plates for USA Trains Streamliner Observation Car End
(CamPac coupler box fitted with Kadee centerset coupler mounts on these plates)

Plate with minimal coupler projection for car operation on 20 foot diameter track or greater



End of car coupler opening needs small cutout to be done by installer - like this →



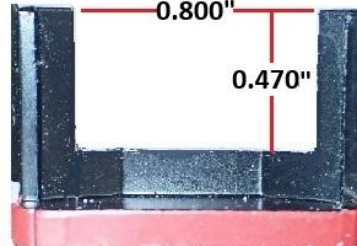
Good appearance but limited coupler swing



Plate with coupler projection for car operation on 8 foot diameter track or greater



End of car coupler opening needs large cutout to be done by installer - ← like this



Practical with plenty of coupler swing



(Worst case operation of cars is for a very short car coupled to a long car as shown)
 Example cars on 20 foot diameter track Okay



Example cars on 8 foot diameter track Okay
 Projected coupler

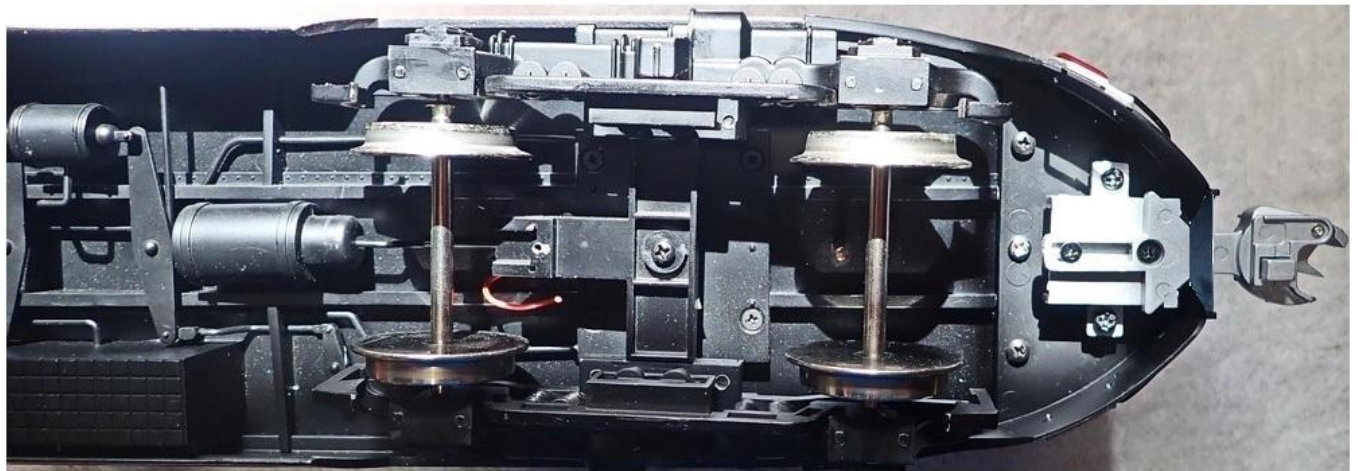


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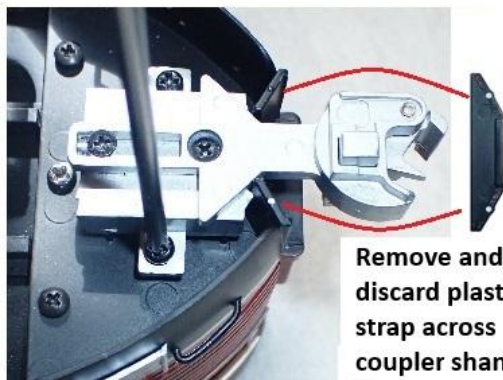
Remove Factory metal coupler



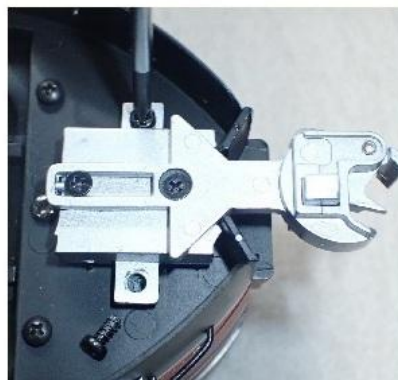
The USA Trains aluminum streamliner car typically includes low mount coupler. Kadee centerset coupler is to replace it aligning to Kadee 980 gage



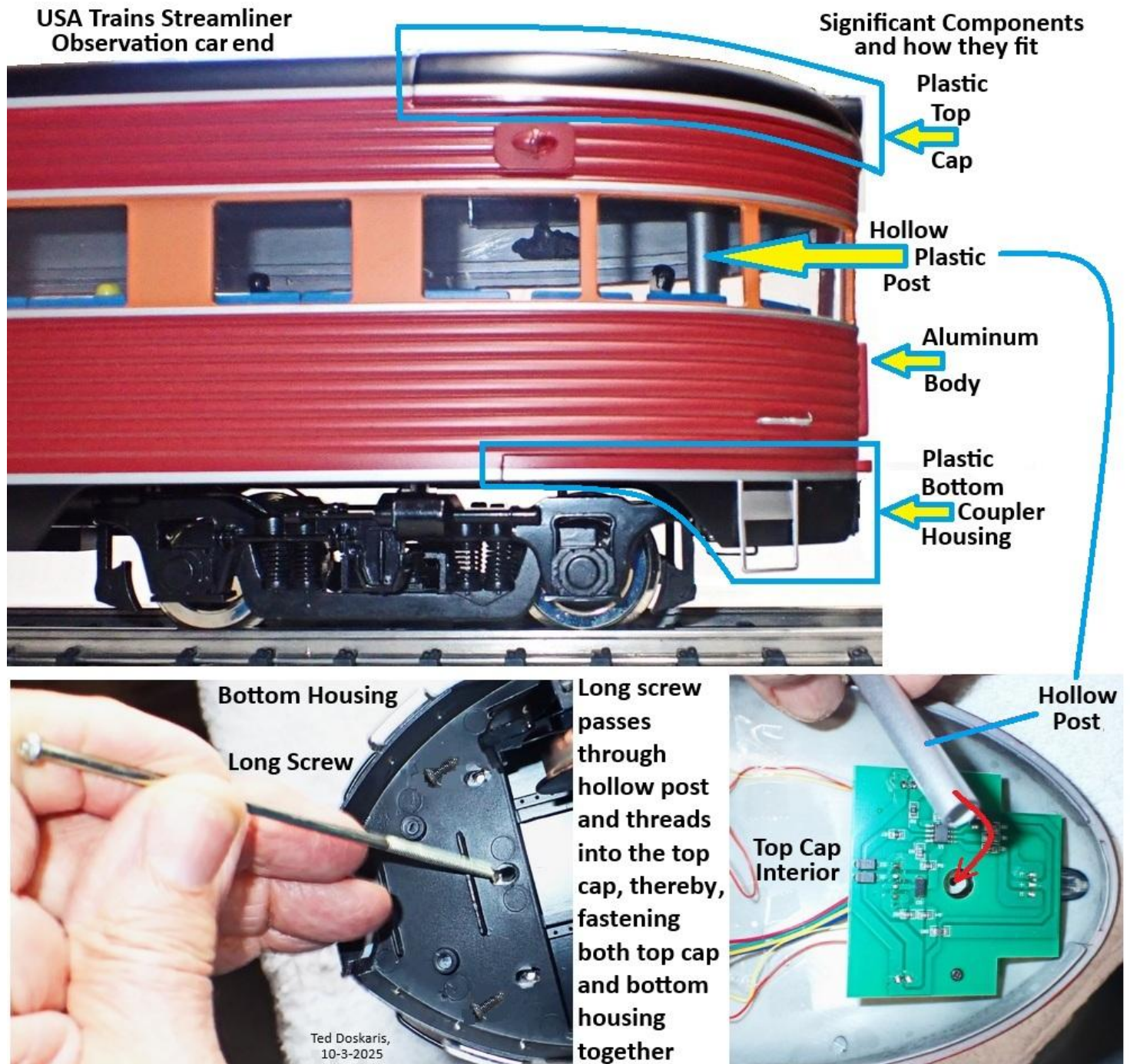
Remove factory metal coupler assembly from the rear of the Streamliner car. Save the M3.0 x 6mm Phillips head screws. They will be used to mount the CamPac adapter plate with CamPac Box™ fitted with Kadee 907 kit centerset coupler. In the event screws are lost, request replacements at time of ordering.



Remove and discard plastic strap across coupler shank



Because a method will be used to show how to enlarge the coupler opening for installing CamPac boxes fitted with Kadee centerset couplers, shown below is how the observation car's end components are put together.

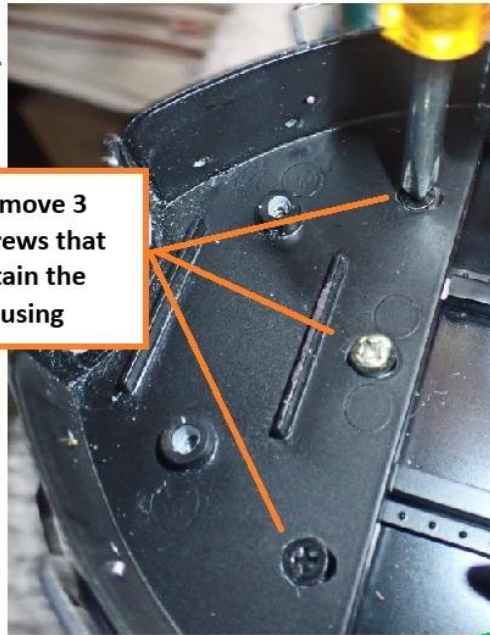


Step 1, Remove bottom housing

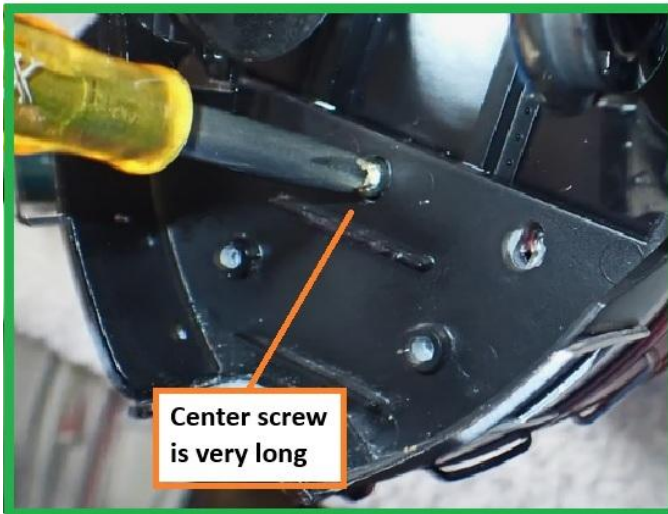
Example USA
Trains streamliner
observation car
end

Remove the
bottom end
housing as
illustrated

Remove 3
screws that
retain the
housing



Withdraw
the long
screw



Center screw
is very long

Extract
housing



The bottom end is free to be put on work bench
to more easily enlarge its center opening



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USA Trains metal streamliner observation car bottom coupler housing

Step 2 Example 1 (Recommended)

This example is for maximum coupler projection with car operation on 8 foot diameter track or greater.

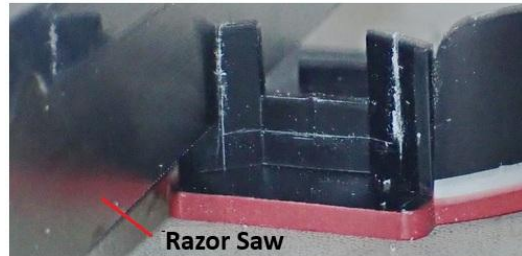
Enlarge opening to width of 0.800 inch and depth of 0.456 inch for maximum coupler projection for car operation on 8 foot diameter track or greater



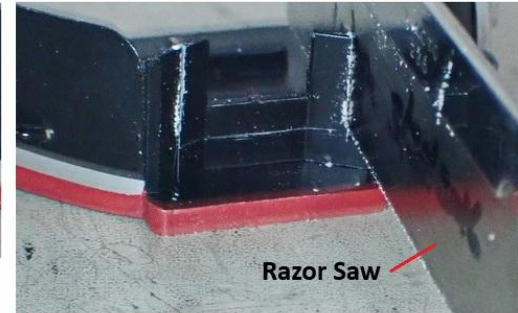
Machinist scale used for measuring



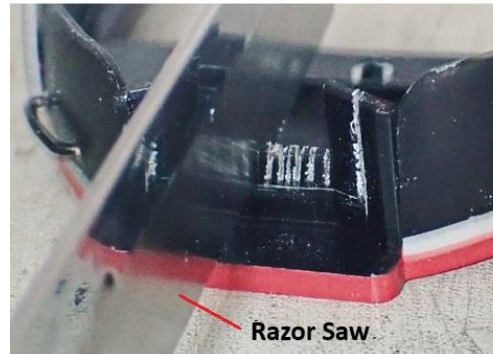
Example method is shown below



Razor Saw

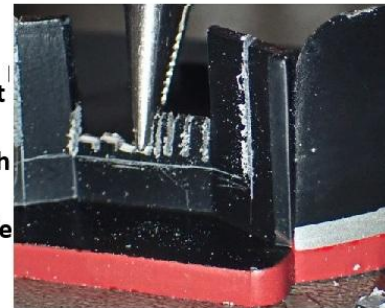


Razor Saw



Razor Saw

Using razor saw, make vertical cuts at scribed lines, including teeth to be broken off with needle nose pliers

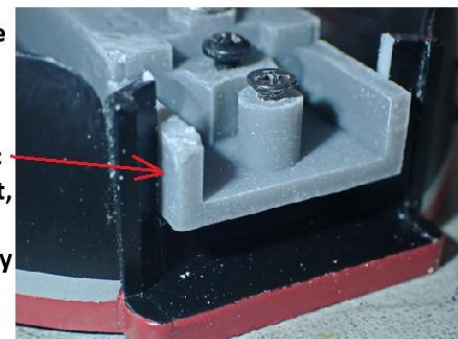


File teeth away down to horizontal scribe line, then using saw, cut laterally to reach full width of the opening



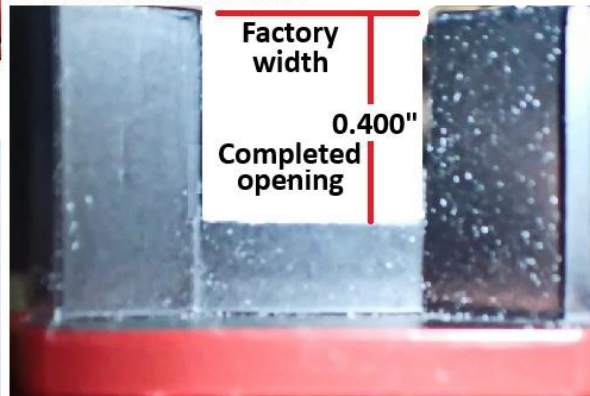
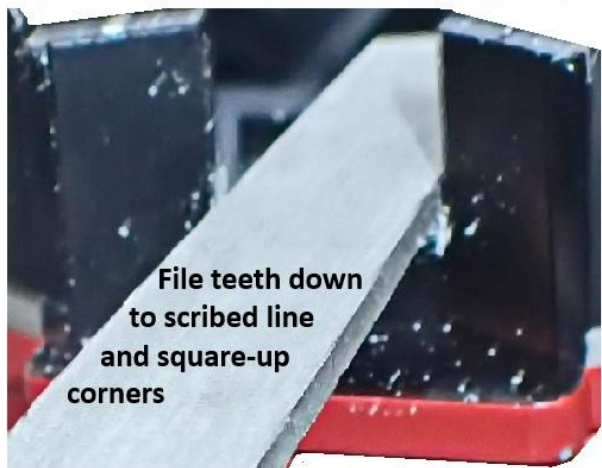
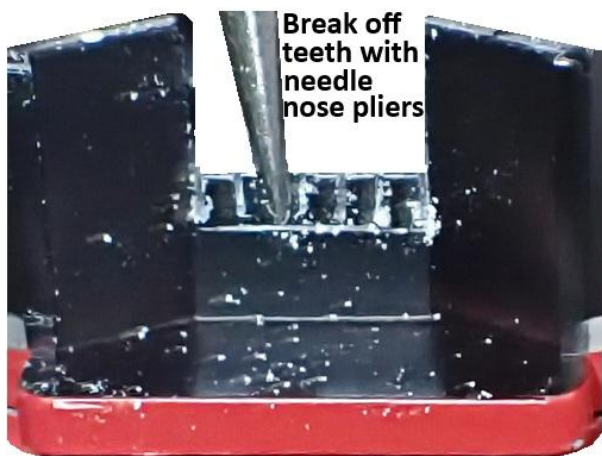
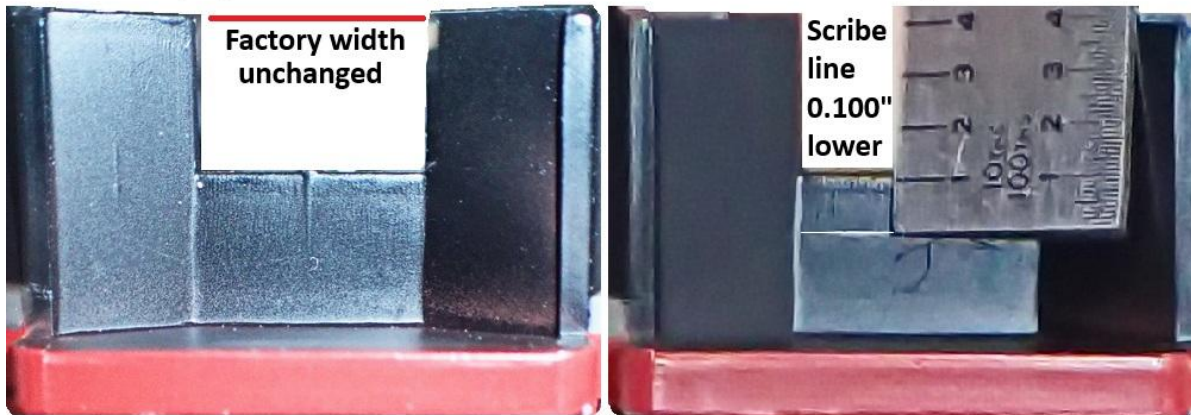
Square-up corners and file finish sides of opening

Test fit CamPac box. If too tight, file sides of opening equally until box fits



Step 2 Example 2 This example is for minimum coupler projection

Enlarge opening depth to 0.400 inch for minimum coupler projection for car operation on 20 foot diameter track or greater



Example installed CamPac Box™ fitted with Kadee centerset coupler on CamPac adapter for minimal coupler projection



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Step 3 Remount the bottom coupler housing on car body.

Essentially the reverse process shown on sheet 5- except for checking the housing seating



Press down on housing and verify it evenly seats on the car body. If not, remedy obstructions

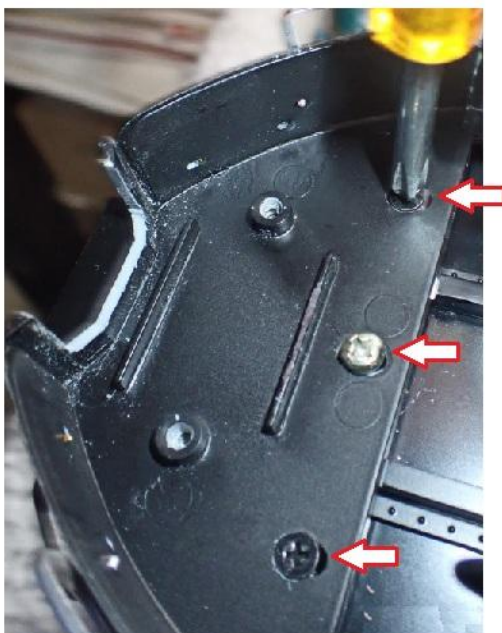


Insert long screw in center hole

Thread the long screw into the top cap - serves to fasten both on body shell



Fasten all 3 screws



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Top Cap

Step 4 – Assemble the CamPac Box with Kadee Parts

Install the Coupler, springs and lid from the Kadee* 907 kit in the CamPac Box™



*Kadee is a registered trademark of Kadee Quality Products Co., White City, Oregon, USA.

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Step 5 Fasten the CamPac Adapter on the Car and Mount the CamPac Box
CamPac Adapter Plates & Mounting CamPac Boxes™

Plate with minimal coupler projection for car operation on 20 foot diameter track or greater

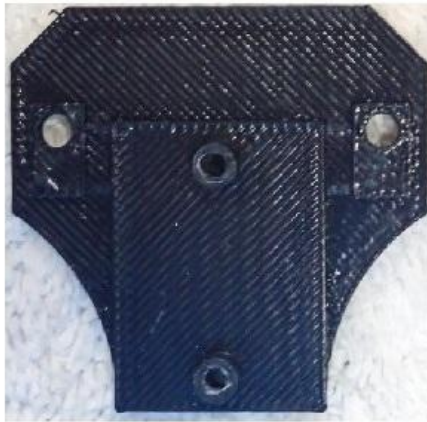


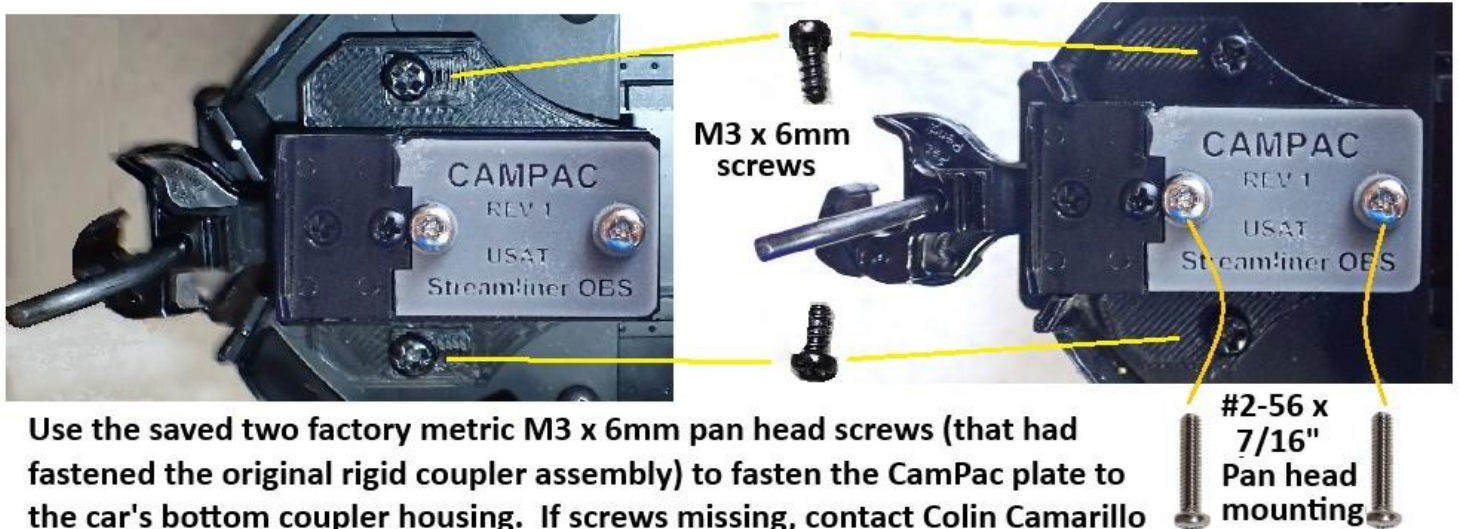
Plate with coupler projection for car operation on 8 foot diameter track or greater



The plate of choice can be fastened on the car's bottom coupler housing, and then the CamPac box can be mounted on the plate.

- OR -

The CamPac box can be mounted on the plate, and the whole assembly can be mounted on the car's coupler housing that had been fastened to the car.



Use the saved two factory metric M3 x 6mm pan head screws (that had fastened the original rigid coupler assembly) to fasten the CamPac plate to the car's bottom coupler housing. If screws missing, contact Colin Camarillo for replacements.

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!!! DONE !!!

