

USA Trains Streamliner Passenger Car CamPac Box™ Install Guide

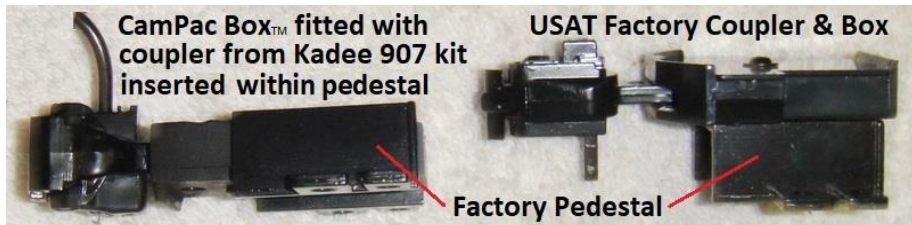
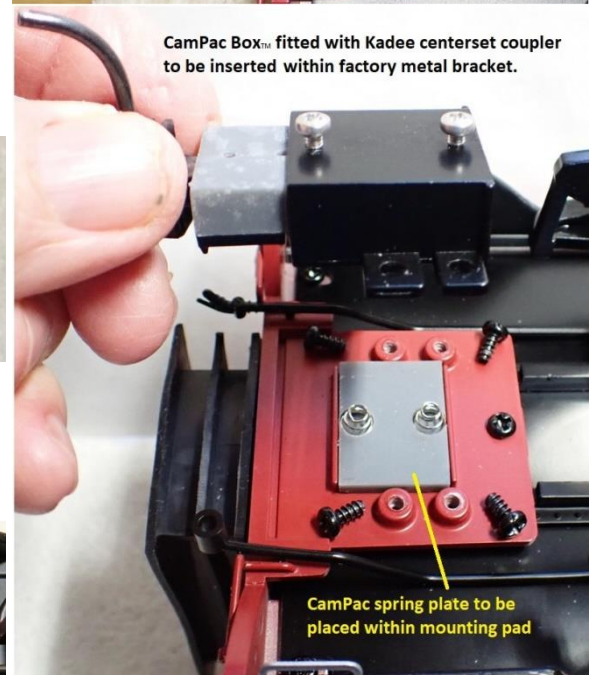
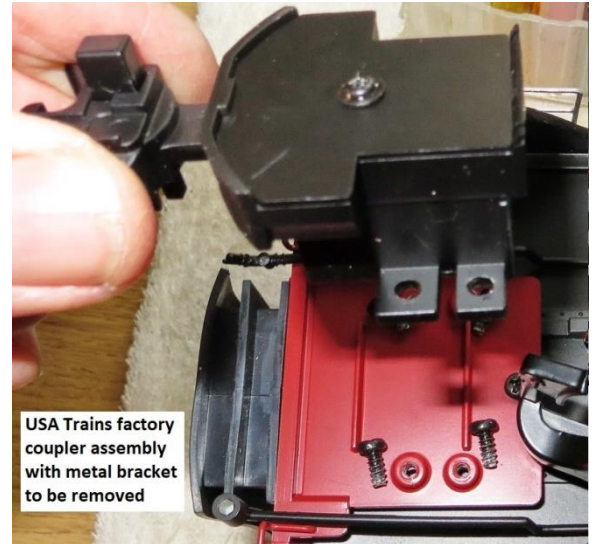
by Ted Doskaris, December 19, 2020

USA Trains Streamliner cars include the RPO, Baggage, Combine, Coach, Sleeper, Diner, and Observation. (As of this writing, a CamPac Box™ is not verified /applicable for mounting on the end of the observation car).

Operation of these car types equipped with the CamPac Box is recommended on 10 foot diameter track curves or greater; however, it's possible for operation on 8 foot curves, but cars' grab irons can touch, particularly when backing up a train.

Layouts with "S" bends must have a straight track between diverging paths about the length or more of this car.

Example Streamliner Car
equipped with CamPac Box™
fitted with Kadee "G"
scale centerset
coupler

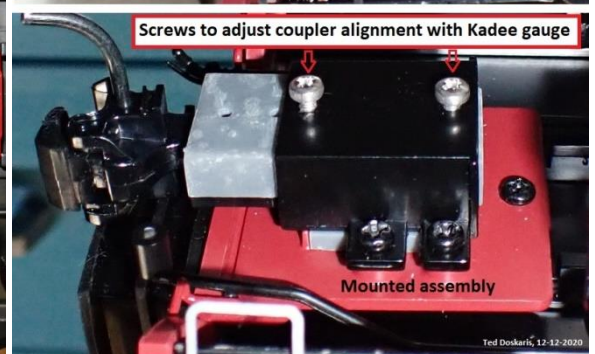
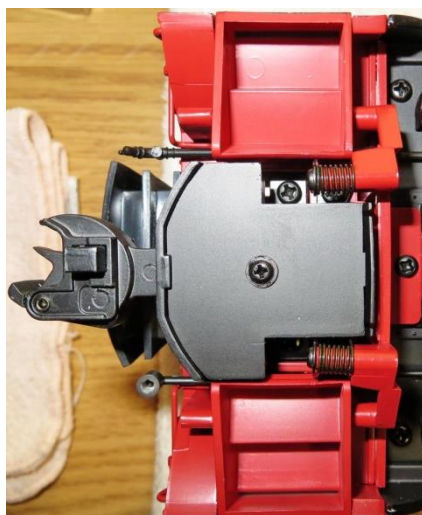


CamPac Boxes fitted with Kadee* centerset knuckle coupler from the 907 kit uses the factory "U" shaped cast metal bracket (pedestal) but is "floated" within it in place of the factory box which fastens on top. The box is adjustable for coupler alignment – best using the Kadee 980 coupler height gauge which the installer should obtain.

First, the factory coupler assemblies are to be removed. The assembly mounted on the vestibule end having doors and fold down steps is a bit more challenging owing to the confines of the spring apparatus, so this will be exemplified.

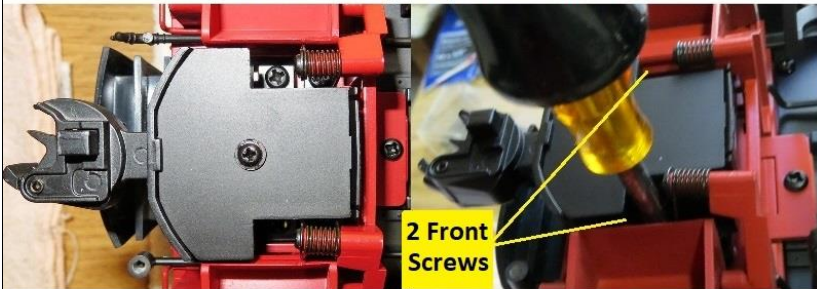
See "how to" details on following sheets

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

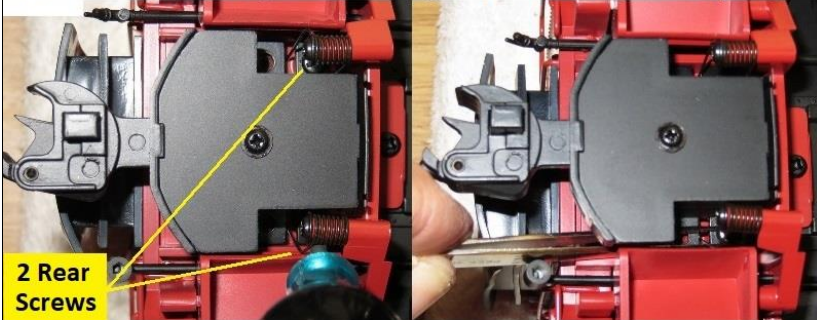


Example Vestibule End Factory Coupler Assembly Shown (*Car/s at plain ends is less obstructed*) If too awkward to remove whole assembly, first remove coupler box subassembly from its bracket, and then remove screws at bracket feet

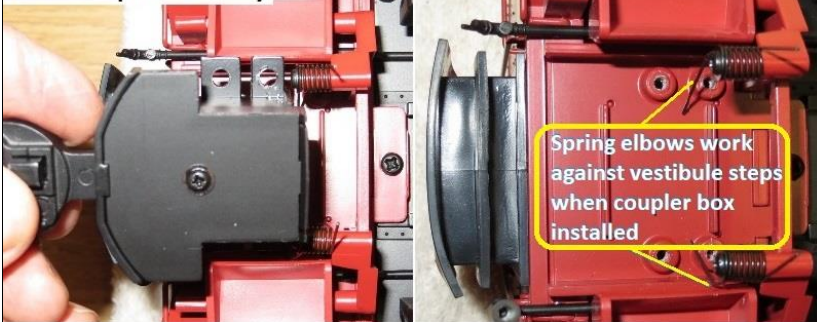
Remove Factory Coupler Assemblies



To remove screws at bracket feet, a narrow shank Phillips screwdriver is needed with it being held at an angle for screws under the springs



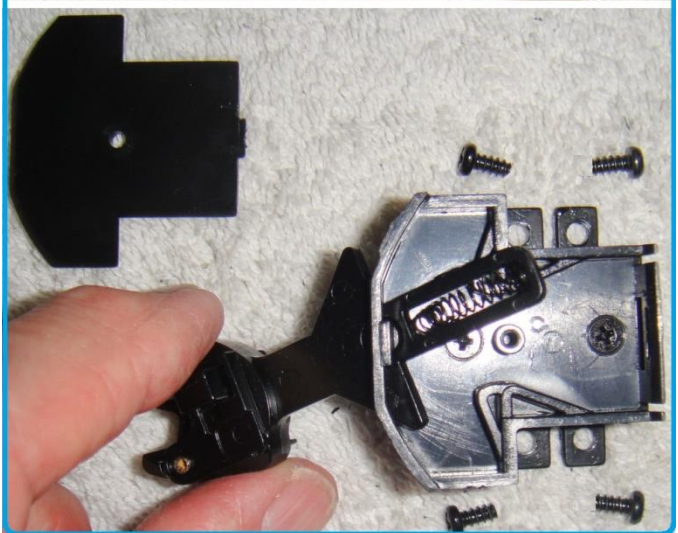
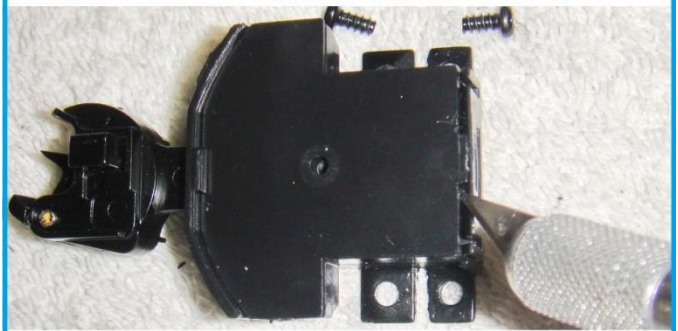
Screws are lifted free with tweezers, and then push spring stems away from coupler box assy



Remove Factory Box from Bracket

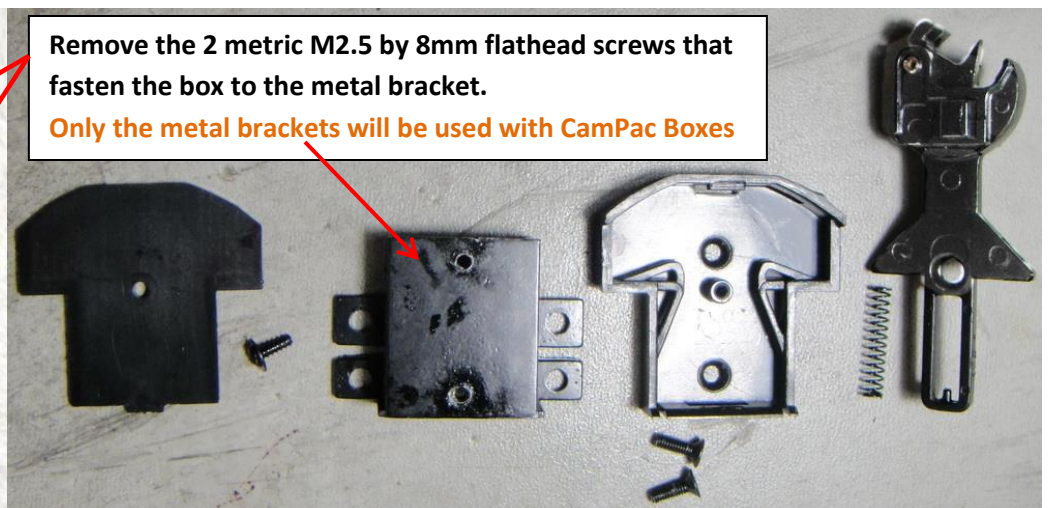
(Bracket will be used with CamPac Box)

Remove small center screw that retains lid to box, and then pry away back of lid to disengage tab from rear slot to remove it, and then withdraw the coupler and its spring from the box. (*Spring may separate & fly out!*)



Remove the 2 metric M2.5 by 8mm flathead screws that fasten the box to the metal bracket.

Only the metal brackets will be used with CamPac Boxes



Car Preparation

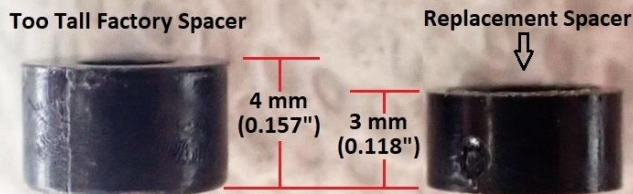
Two things need to be done to the car before mounting CamPac Boxes. **FIRST**, the diaphragm flutes will need to be trimmed so the Kadee knuckle coupler will not interfere - illustrated on the right. ➡

SECOND, the car's mounting pad on the end that does not have fold down steps (plain end) should have its pad slope corrected – as illustrated below. ⬇

Mounting pad only on plain end of car/s is sloped because factory spacer at end is too tall - causing coupler misalignment. This is to be corrected.



Replace the tall factory spacer with the shorter replacement spacer only on the plain end of the car



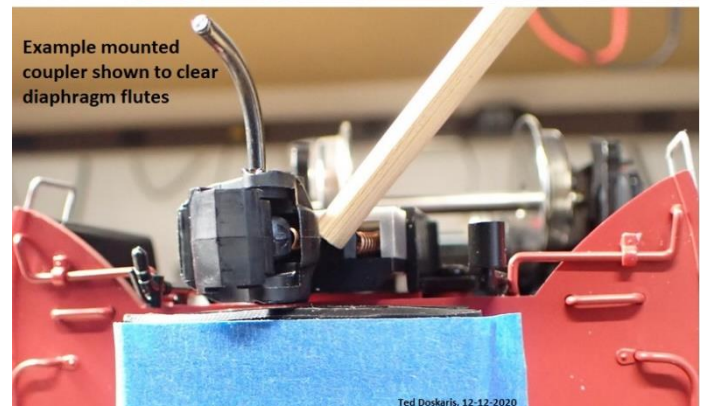
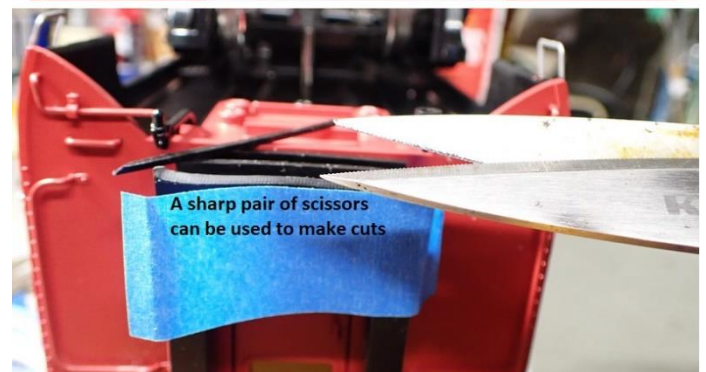
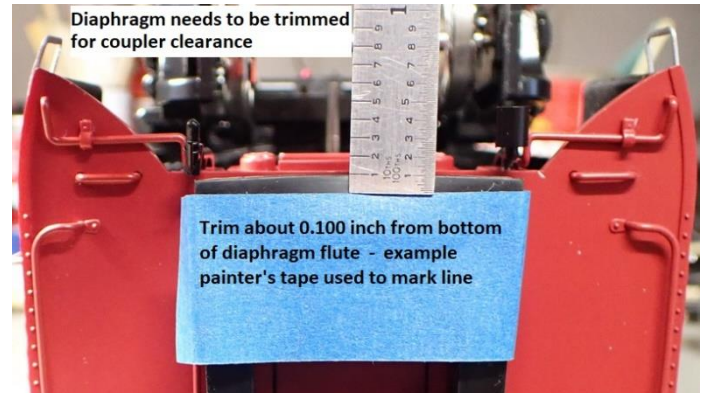
The replacement spacer is provided with the CamPac kit
(The factory spacer can be filed down to dimension shown)

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Make room to access and replace the factory spacer by temporarily unfastening truck and setting it aside (no need to completely remove truck) With factory machine screw temporarily removed, the spacer can be withdrawn & replaced with shorter one by using needle nose pliers



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Note: Car types that are plain on both ends (no vestibule) include the RPO and Baggage car (need 2 spacers per car). Car types that have one plain end include the Combine, Coach, Diner and Observation car (need 1 spacer per car).

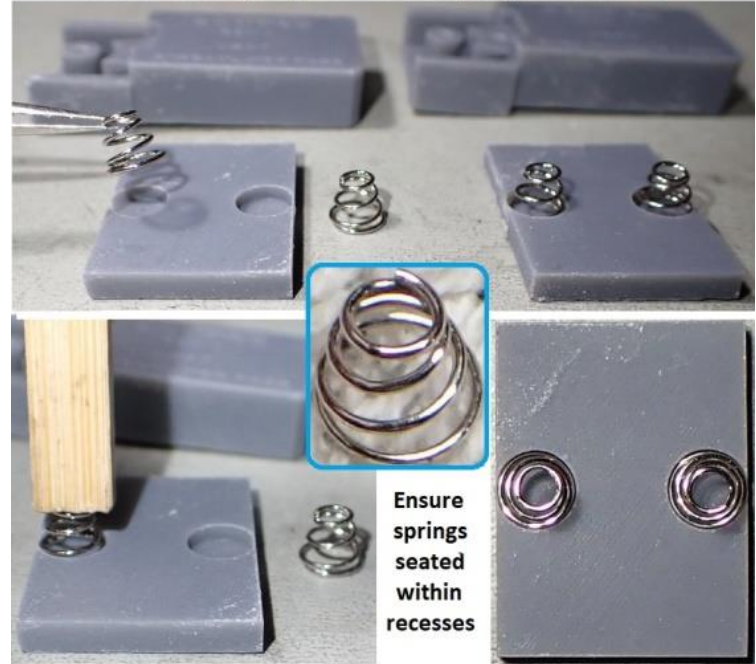
Advisory: It's recommended specifying the car type when ordering CamPac kit so correct quantity spacers are supplied.

CamPac Box Preparation & Spring Plate

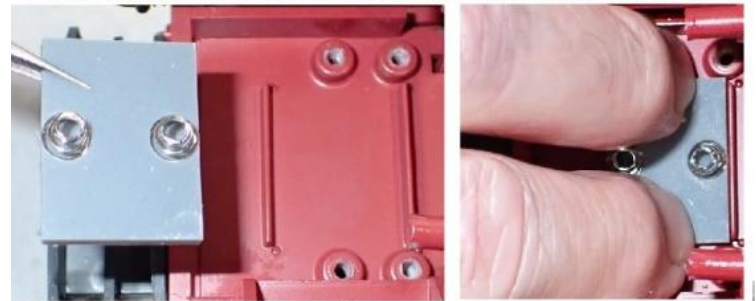
Install Coupler, Springs and Lid from Kadee* 907 kit in CamPac Box™



Install 2 Cone Springs into CamPac Spring Plate Recesses



Seat spring plate assembly within the car's chassis pad rib confines:

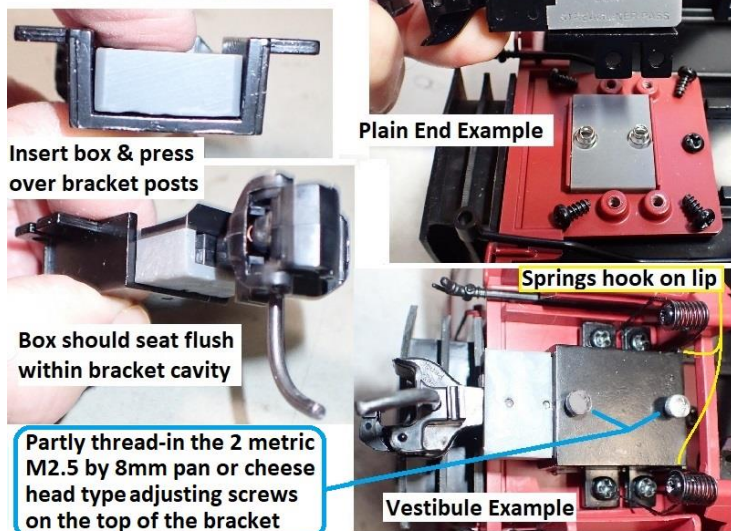
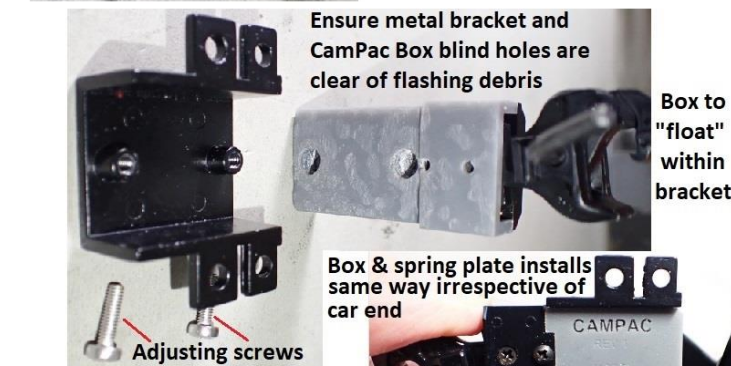
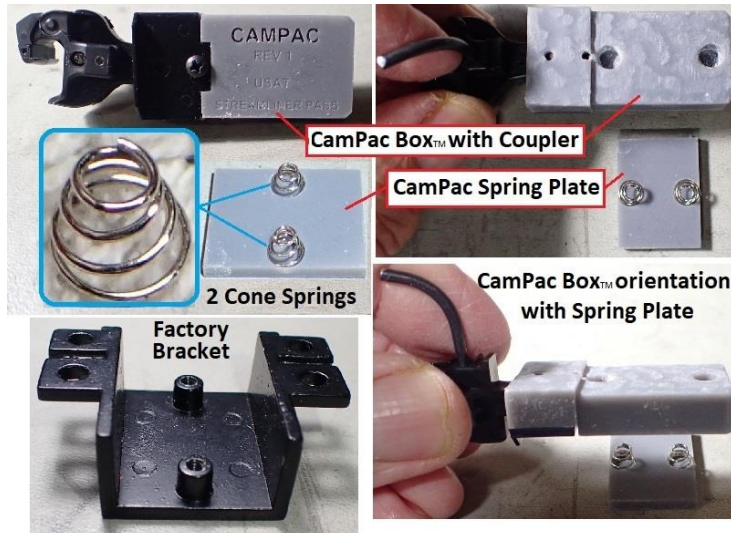


Viewable areas of the assembled box can be pre painted to match a car's livery before installing it.



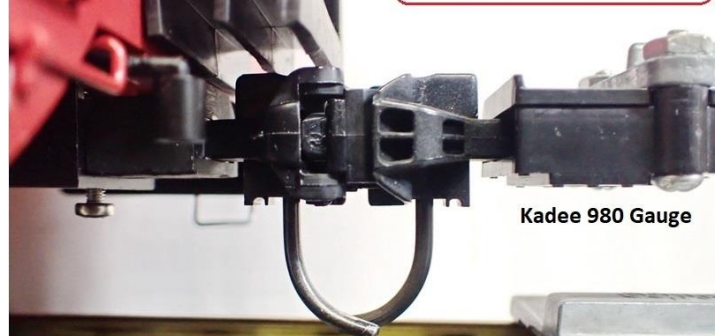
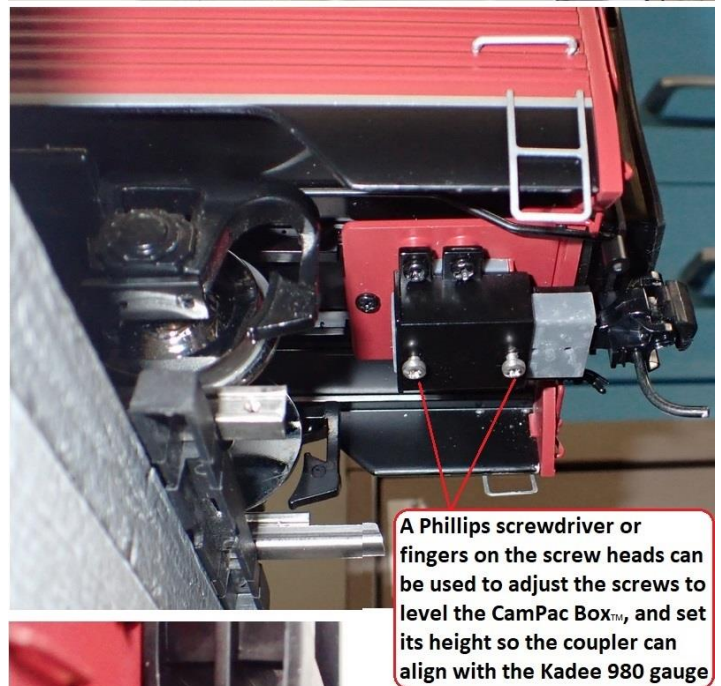
CamPac Box™ Installation & Adjustment

The assembled box is oriented and inserted into the factory bracket, then fastened to the car's chassis - illustrated below



Note: Because the Kadee coupler does not pull out like the USA Trains spring loaded coupler, car spacing is comparatively reduced during operation of the car in a train.

Adjusting coupler alignment with Kadee 980 Gauge
Put car on track on table so when pushed its end overhangs in the air



Example Method: Start with screws backed out just enough so not to change the box/coupler attitude. (The conical springs should force the box in the lowest position from the track.) Adjusting in both screws can raise the box. Adjusting in the screw closest to the truck will tilt the coupler lower to the track. Likewise, adjusting in the screw near the car's end will tilt the coupler upward. A combination of adjustments will serve to align the coupler with the Kadee gauge. Ideally, coupler's shank is to be horizontal with coupler at correct height. For a given adjustment, slide the car back on the track with the Kadee gauge placed on the track to check results. Repeat as needed.