

# #450 KADEE®/STEWART® COUPLER CONVERSION

## Package Contains:

- |                           |                      |
|---------------------------|----------------------|
| 2 450 / Kadee® - brackets | 2 2-56 x 1/4" screws |
| 2 #30 Series Draft Boxes  | 2 #5 Couplers        |
| 2 Knuckle springs         | 2 Plastic Washers    |
| 3 Torsion springs         |                      |

1. The front coupler on the "A" unit locomotive must be removed before removing the body shell. Then place the engine right side up on a padded surface. Spread the body shell out from the chassis by inserting your fingernails between the chassis and shell, carefully dropping the chassis out and onto the padded surface.

2. Set the shell aside. On each end of the chassis above the coupler the finger latch of the plastic coupler mounting bracket can be seen holding the bracket in place. Push the finger latch in and down out of the "T" slot with the blade of a small screwdriver. See Fig. 1. Remove the brackets and the one coupler that is still attached. Do this also to both ends of the "B" chassis.

3. Set the chassis aside for now.

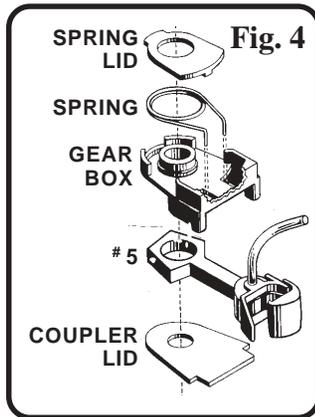
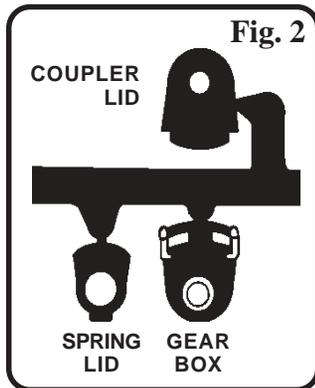
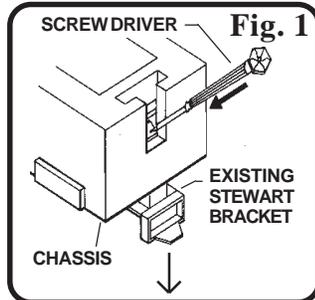
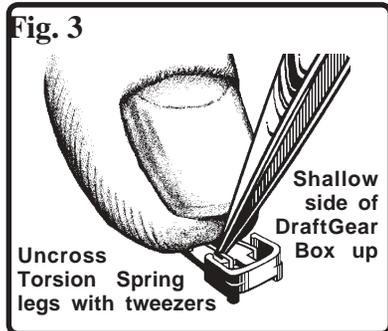
### ASSEMBLING THE COUPLER

4. Study plastic runners having the attached draft gear box parts and familiarize yourself with them. See Fig. 2.

5. In this draft gear box the spring is mounted into the shallow side of the box and the coupler shank is mounted in the deep side of the box. The small lid covers the spring, the large lid covers the coupler.

6. Using tweezers, set the spring in the shallow side of the box, indexing the spring over the center post. Cover the spring and post with your left thumb, see Fig. 3. Use tweezers to place a spring leg through each of the slots at the front of the box. See Fig. 4.

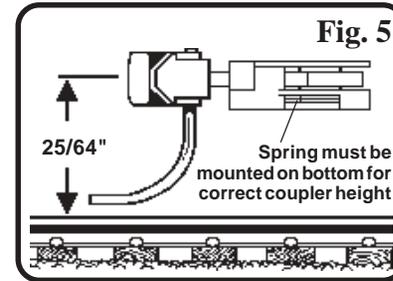
7. With your left thumb still in place, move your right thumb to the front of the box over the inserted spring legs, making sure the legs remain in position. Remove your left thumb, then slide the small spring lid forward



under your right thumb into place over the center post, taking care not to damage the spring. The tab on the rear of this lid should index into the slot located at the back of the box. Snap the lid into place. If necessary, the lid can be fastened with liquid styrene cement (refer to the enclosed #30 Series Coupler Instructions). However, the box will be sealed and further servicing will be difficult without damaging the box.

8. A glue applicator can be made by inserting a small needle into a quarter inch diameter wooden dowel, then grind or stone the tip end of the needle enough to open the eye end. When dipped into a solvent, enough solvent will remain in the eye to be applied in a small, measured amount. Amount is determined by size of needle and length left in eye opening.

9. Turning the draft box over, place the hole of the coupler shank over the coupler box center post with the coupler trip pin pointing down toward the spring side of the box. The coupler shank is placed in between the two spring legs to separate them.



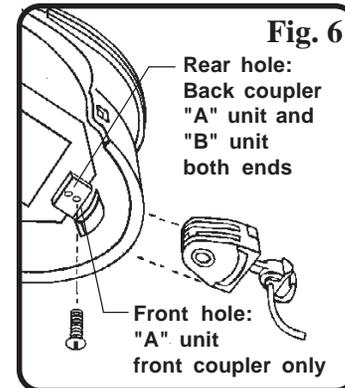
10. Place the large coupler box lid over the coupler, as shown in Fig. 4. Hold the whole assembly together with our Kadee® #1020 tweezers.

As mentioned before, this lid may be cemented in place. With extreme care, use only a small amount of solvent glue to prevent it from wicking throughout the box.

11. Press the Kadee® #450 friction fit conversion bracket into the chassis in the same "T" slot that was occupied by the original Stewart® bracket. Do not press on the fragile draft gear pocket opening.

12. Snap the headlight tube into the front bracket on the "A" unit.

13. Couplers can now be inserted into the opening of the Kadee® #450 brackets. With the 2-56 screws, mount coupler assembly to bracket using the rear tapped hole for the "A" unit rear coupler and the front tapped hole for the front coupler. The "B" unit installation is the same as the rear installation of the "A" unit.



14. Set the chassis on the track and check the coupler for correct height with the Kadee® #205 height gauge, (see Fig. 5) adjusting as described in the enclosed #30 series coupler instruction sheet. Be sure the trip pin does not drag on the uncoupling magnet, also making sure it swings freely for uncoupling. Use Kadee® #231 Grease-em lubrication for obtaining maximum results.

15. The front "A" unit coupler must be removed before the body shell can be replaced on the chassis. Re-attach the coupler to the front end of the "A" unit by inserting it through the pocket in the pilot. See Fig. 6.

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