

# Kadee®

The Coupler People®

July 2023



New Products, News,

and Information...

Made & Assembled Entirely in the U.S.A.

## July Tech Tip - Consistent & Reliable Couplers

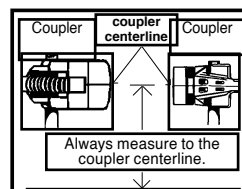
Let's review the specifics on some technical support questions I keep answering month after month.

Ever since we invented the Kadee® Magne-Matic® knuckle coupler system over 60 years ago, we have taken great care to provide accurate instructions for every one of our products. Our product instructions describe the best way to install and use Kadee® products to ensure a trouble-free experience. **Please follow the instructions provided in your packaging.** Other sources of installation guidance (such as YouTube videos or online forums) may omit important steps from our instructions that could result in damage to your models or unsatisfactory performance. If you are wondering why something is not working correctly, it is probably because one or more of the most basic critical steps were skipped in the instructions and/or the coupler fine tuning process.

**Let's go over the important basics:**

**Remove any flash/burrs/rough spots from parts and burnish the parts before assembling the components!** This ensures everything is going to fit together correctly and be well lubricated. Never force parts together. If there are burrs, they will need to be trimmed or filed for a proper fit.

**The coupler has to be mounted at the correct height!** Always check your coupler height with an appropriate scale coupler height gauge (use the centerline of the coupler height gauge for coupler height reference) and make the required height adjustments by shimming or using the appropriate offset coupler. Setting the coupler height correctly also gives the greatest amount of vertical knuckle movement (sliding up and down) as the cars go over track inconsistencies in a layout so cars don't slip apart. When the coupler centerline is set correctly, the trip pin will not require any bending. The coupler trip pin is factory set and should not need to be bent. If you bend the trip pin because the coupler was mounted incorrectly, the coupler will not function over the uncoupler the way it was intended to operate. Trip pin angles and height are very important for consistent and reliable uncoupling.



**The coupler has to be able to move freely side to side in the gearbox and snap back to center!** Always check coupler centering function once the gearbox lid is attached. This is also a very critical step for reliable coupling and uncoupling. If the lid is too tight or if you have a non-standard shallow cast-on gearbox, the coupler may not snap to back to center. The coupler can't be expected to open over the uncoupling magnet or couple up to another coupler (and it quite possibly may cause a car derailment navigating corners) if the coupler can't move freely side to side. If you have one of these shallow cast-on gearboxes that were created by other coupler manufacturers, attempt to fix coupler droop that clone couplers are notorious for. The fix is a simple one. File the top of the Kadee® coupler shank a few strokes with a fine-tooth file, usually just enough to remove the black coloring to make the Kadee® coupler function correctly in the non-standard shallow cast-on gearbox.

**The coupler has to be mounted on the centerline of the car!** This is important in so many ways. A coupler has to be mounted on the centerline of the underframe and gearboxes squared to ensure the coupler trip pin passes over the uncoupler at the correct angle and position. This ensures the uncoupling magnet pulls the trip pin outward far enough to open the couplers and put both couplers in the delayed position if using a delayed uncoupler magnet. The magnetic field is on the outside edges of the uncoupler. As I said earlier, when I was talking about not adjusting the trip pin, the trip pin angles are very important for consistent and reliable uncoupling. Same goes when trying to couple cars together. If things are not mounted on the centerline and gearboxes square the knuckles will not align and the couplers will not recouple up when pushing two cars together.

**The uncoupler has to be mounted centered in the track and has to be mounted at the correct height!** This is important. Use the #334 uncoupler gluing jig to mount the #312, #321 and #322 HO Scale uncouplers to get them mounted at the correct height and correctly centered in the track. The #312, #321 and #322 HO Scale uncouplers should extend above the rails by exactly 1/64". Too high will cause the trip pin to catch the uncoupler. Too low and the magnet may not be strong enough to operate the couplers. The #308 is our strongest uncoupler that goes under the track - you just need to make sure it is centered under the track. some scales may require multiple magnets to increase the magnetic fields due to track height. Electric uncouplers are very sensitive to oppositional voltage and amperage. Be sure you are using the required voltage and amperage for proper operational performance.

**Where the uncoupler is mounted is very important!** It is important that the uncoupler is mounted on a straight piece of track and far enough out of the corner to accommodate your longest car. If your car is partially in a corner your coupler will be crooked and not be aligned correctly over the uncoupler to operate the trip pins properly. The same is true if you are coming off a grade. The grade or transition will lift or push the trip pins out of the correct height and cause the trip pin to catch the uncoupler.

**Here are some issues that should be avoided at all costs when installing couplers!**

Drinking multiple espresso coffee drinks before starting your coupler installation. Watching the news while installing couplers. Having your favorite pet help (I know my Boston terriers would love to help, but the outcome would be horrendous).

**On a more serious note:** take your time and do it right the first time. You will be much happier with your outcome and there will be more enjoyment in your railroad. Issues can arise from gluing gearboxes to the bottom of the car, trusting cast-on gearboxes to be set up correctly, replacing clone knuckle couplers that failed in just a few short months with another set of clone knuckle couplers, or relying on consistency from one end of the car to the other. After all, most cars are made in overseas. Always use Kadee® Couplers.

# July 2023 New Rolling Stock!

Kadee® prides itself in creating and manufacturing premium "RTR" rolling stock as close to scale & detail as possible. Model railroaders can expect only the best quality & craftsmanship with every Kadee® quality product. Nothing stacks up to the accuracy, detail, quality, & authenticity of Kadee® Cars over all other "RTR" cars on the market.



Made & Assembled  
Entirely in the U.S.A.



## HO-Scale Ready-to-Run Rolling Stock



**NEW**

7527 MILW #69438.....\$45.99

Milwaukee  
Series: 96000-96999  
BLT. 1948 - Factory New  
Red Oxide

## Current In-Stock HO-Scale "RTR" Freight Cars

070523

### 40' PS-1 Boxcars



4331 ACY #3454.....\$39.95



4333 NH #34006.....\$43.99



4334 DSS&A #15052.....\$43.99



4335 ATSF #276531 (4332 Blem)...\$41.99



5326 CNJ #23548.....\$43.99



6929 KDC #029.....\$41.99

### 50' PS-1 Boxcars



6026 C&O #21139.....\$44.99



6417 ACY #3600.....\$43.99



6744 NH #40514.....\$39.95



6745 D&RGW #63675.....\$43.99



6927 KDC #027.....\$42.95

### 50-ton AAR "Standard" Open Bay Hopper



7525 GM&O #32487.....\$42.95



7526 MILW #96863.....\$45.99



7527 MILW #96438.....\$45.99

### 2003 CU FT. PS-2 Hopper



8343 M&STL #70351.....\$44.99

### ACF 11,000 Gallon Insulated Tank Car



9020 SILX #101.....\$45.95

### Undecorated Cars

- 4000 40' PS-1 Boxcar.....\$39.99
- 5199 40' PS-1 Boxcar.....\$39.99
- 5200 40' PS-1 Boxcar.....\$39.99
- 6000 50' PS-1 Boxcar.....\$39.99
- 7001 Open Bay Hopper.....\$41.95
- 7002 Open Bay Hopper.....\$41.95
- 7501 Open Bay Hopper.....\$41.95
- 8001 Covered Hopper.....\$41.95
- 8601 Covered Hopper.....\$41.95
- 9000 Tank Car.....\$42.95



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Coupler Conversions can be found at  
[www.kadee.com/convpl](http://www.kadee.com/convpl)

CNW, DRGW, MKT, MP, SP, SSW, UP, & WP marks are made under trademark license from Union Pacific Railroad Company.

WARNING: CHOKING HAZARD - Small Parts - Not for children under 14 years.

Lettering similar to cars shown \*Subject to change without notice.