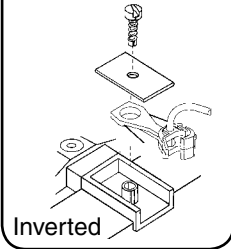




# MAGNE-MATIC® "WHISKER"® Couplers

**CONTENTS:** 4 #242 Draft Gear Boxes & Lids, 4 "WHISKER" Couplers, 2 Knuckle Springs

## Manufacturers cast-on draft gear box



Kadee® Standard, Scale & Shelf coupler heads have been designed & tested to function with all Kadee® HO & HO3 Couplers.

The "WHISKER" coupler is a Metal coupler with a "built in" centering spring and will drop into most "standard" draft gear boxes. The coupler will match the length and height of our corresponding couplers See Fig 1. This coupler has the same reliable Magne-Matic® and Delayed Action operational features as our other couplers and will function with all of our HO permanent and electric, magnetic uncouplers.

The "WHISKER" centering spring is a thin wire protruding at a "V" angle forward from the pivoting hole at the end of the shank. Because the wire spring

is cut by a machine the tips might be sharp and CAUTION must be taken when handling the coupler.

**SHELF COUPLER NOTE:** The top hood (shelf) protrudes quite a bit and may interfere with bodywork on certain models. There will be certain mounting limitations with the height of the top hood on Shelf Couplers.

Because Kadee® shelf couplers keep the couplers from slipping apart, modelers may desire to use them to keep cars from unwanted uncoupling over rough or uneven trackage. However, there are limitations to shelf couplers that will cause derailments. Couplers are not designed to compensate for rough trackage. Although they may help in areas, don't expect them to alleviate problems with poor modular connections, dips, bumps, gaps, sharp grade changes, other rough track work.

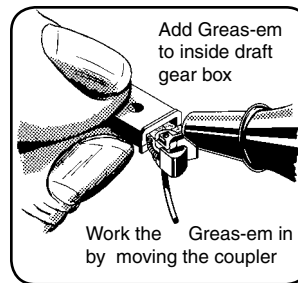
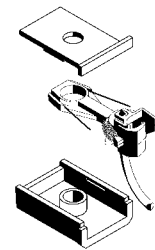
To assemble/install the "WHISKER" coupler follow the illustrations in these instructions and before you secure the lid be sure that the wire whiskers are inside the edges of the box and not caught in the seam of the box and

## Fig 1

Chart Represents Coupler Shank Variations for "WHISKER" & Standard Centering Spring Couplers.

21 '31 '41 '141 	<b>Long underset shank</b> raises knuckle height	<p><b>Long Centerset Shank</b></p>
26 '36 '46 '146 '156 	<b>Long centerset shank</b> knuckle is centered	
29 '39 '49 '149 	<b>Long overset shank</b> lowers knuckle height	
27 '37 '47 '147 	<b>Medium underset shank</b> raises knuckle height	<p><b>Medium Centerset Shank</b></p>
3 '9 '5 '58 '118 '119 '148 '158 	<b>Medium metal centerset shank</b> knuckle is centered ('11, '12, '14 & 150 pack)	
28 '38 	<b>Medium plastic centerset shank</b> (same as '5)	
22 '32 '42 '142 	<b>Medium overset shank</b> lowers knuckle height	
24 '34 '44 '144 	<b>Short underset shank</b> raises knuckle height	<p><b>Short Centerset Shank</b></p>
23 '33 '43 '143 '153 	<b>Short centerset shank</b> knuckle is centered	
25 '35 '45 '145 	<b>Short overset shank</b> lowers knuckle height	

## #242 Gear Box



lid. The wire springs are quite resilient but not indestructible and are NOT REPLACEABLE so if you damage the spring the coupler can not be used again. When securing the lid or box cover make sure the coupler flexes back and forth freely.

To avoid electrical shorting through the coupler Kadee® does not recommend a metal to metal coupler mounting. Use a plastic draft gear box or an insulated coupler from our 20 or 30 series coupler lines.

If the pivoting post is too small (most commonly found on cast-on draft gear boxes)

the coupler will "slop around" or "droop" in the draft gear box. Make a small bushing (or sleeve) to slip over the post. We include two sizes of sleeves in our 20 series coupler packages (.055" ID and .100" ID) and they also are marketed separately as product #213.

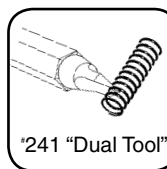
Mount the assembled coupler on the centerline of car with a #2 or 2-56 screw.

To reduce friction and enhance performance burnish the coupler shank and add a bit of dry graphite lubricant into the draft gear box, such as Kadee® #231 Greas-em.

Use our #205 Height Gauge to check for the correct coupler height and trip pin clearance. The HO-Scale N.M.R.A. standard for coupler height is the centerline of coupler at 25/64" (.390"). Use our #237 Trip Pin Pliers to carefully adjust the trip pin clearance if necessary.

Note: The Knuckle Spring used on Kadee® "SCALE" couplers are unique and should not be interchanged with the standard #622 HO-Scale Knuckle Spring. Replacement springs for "SCALE" couplers are sold as the #625 Knuckle Spring.

We include extra knuckle springs in a small capsule. To replace the knuckle spring, use our #241 Dual Tool (Manual Uncoupling Tool & Spring Pic) and insert it between the last two coils on either end of the spring. Then slip the end of the spring

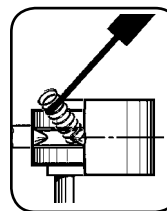


onto one of the retaining cones in the knuckle and compress the spring until you can slip the other end onto the opposing cone then withdraw the pick.

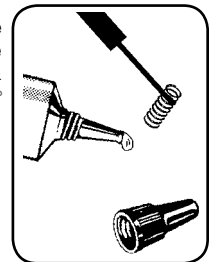
NOTE: To secure the knuckle spring more durably carefully dip the last two coils in DUCO® (or similar type of glue) or a thick slow drying CA glue ("do not" use the thin CA glue because it can easily "wick" into the knuckle and ruin the coupler). Then slip the end of the spring onto one of the retaining cones in the

knuckle and compress the spring until you can slip the other end onto the opposing cone then withdraw the pick.

For Non-Delayed Uncoupling use our #312 Between the Rails Permanent Magnet Uncoupler. For Delayed Action Uncoupling use our #321 Between the Rails Permanent Magnet Uncoupler, #308 Under the Track Permanent Magnet, or our #309 Magne-Electric (Electro-Magnet) Under the Track Uncoupler.



Kadee® coupler conversion lists are available in the Walthers Reference Book. Kadee® coupler conversion list & coupler conversions are on the Kadee® web sight for your convince.  
[www.kadee.com/conv/convpl.htm](http://www.kadee.com/conv/convpl.htm)



**Kadee®** Quality Products Co.

673 Avenue C,  
White City, OR 97503-1078



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