



#904



#822  
#823  
#1904

### Original Style Couplers

#822 is a long straight shank #1-Scale Coupler without draft gear box for do-it-yourself adaptations.  
#823 is a long thicker straight shank #1-Scale Coupler without draft gear box for do-it-yourself adaptations.

### New Generation Couplers

#1904 is a long straight shank #1-Scale New Generation Coupler without draft gear box for do-it-yourself adaptations.

#904 is a long straight shank G-Scale New Generation Coupler without draft gear box for do-it-yourself adaptations.

### ASSEMBLY

**IMPORTANT:** Before assembling remove burrs or flash (if any) from all parts. Burnish (polish) all friction bearing surfaces with #231 Greas-em dry graphite lubricant.

### MOUNTING

Various methods will be used to mount the couplers, depending on your particular application. Some installations will simply be screwed into place while others may require using mounting brackets. Alterations required to the car and/or pocket should be done as carefully and accurately as possible. For maximum performance, it is important the coupler be mounted at the correct height, directly on the car width centerline.

Installing Kadee® couplers on the Samhonsa hopper car is a simple procedure with our #822 coupler. After removing the old coupler, cut 1/2" off the end of the shank of the new Kadee® #822 coupler. File the underside of the remaining coupler shank slightly until it easily slides into the slot on the car (be sure to file off any excess paint inside the slot). Drill a 5/64" hole through the shank 1/8" from end (Fig. 1). Cut a length of the supplied wire about 1 1/4" long and using tweezers or needle nose pliers, form a small loop at one end into which the

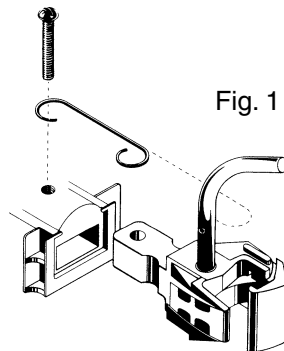
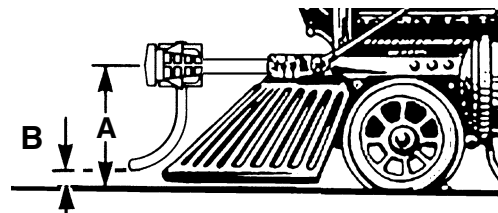


Fig. 1

screw is inserted. Position Kadee® #822 coupler inside slot and install the screw assured the hole placement is in line and correct. Swing wire along side coupler trip pin and tighten screw, holding the spring in place. Now, using tweezers or needle nose pliers, wind wire around trip pin forming spring

Once loop locations are marked, coupler can be disassembled to allow further bending and trimming of spring. Also, file the sides and back of the shank as shown to allow coupler to swing. After tightening the screw, be sure the coupler will swing freely and properly return to center. If not, loosen the screw and hold spring slightly to either side while retightening the screw.

- A** Top of rail to center of coupler  
#1-Scale 1 1/16" or 1.062"  
G-Scale 1 1/8" or 1.125"
- B** Top of rail to bottom of Trip Pin  
#1-Scale 1/8" or .125"  
G-Scale 1/8" or .125"

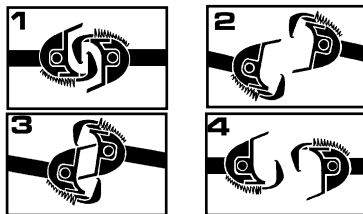


## COUPLER OPERATION TO COUPLE -

Simply push cars together until knuckles bypass each other and lock into position.

## FOR DELAYED UNCOUPLING -

1) Stop with the couplers over an uncoupler and back up slightly with the couplers still over the uncoupler, allowing slack to occur between couplers. 2) Pull forward slightly. Couplers are now in the delayed position. 3) Back up, pushing the car(s) to the desired location. Do not permit slack to develop between couplers. 4) Pull forward, leaving the car(s) where desired. Couplers automatically return to normal coupling position.



NOTE: If couplers swing open too far when uncoupling, lower magnet slightly to correct.

Use Kadee® Greas-em, the dry lubricant recommended for use with all Kadee® Magne-Matic® couplers. Grease-em will not attract the dirt and dust that gums up the inside of couplers like oil, grease or other lubricants will. Use our (#829 or 1929 #1-Scale) or (#880 or 980 G-Scale) Height Gauge to check for the correct coupler height and trip pin clearance. The N.M.R.A. standard for coupler height is the centerline of coupler is 1 1/16" (1.0625") for #1-Scale & 1 1/8" (1.125") G-Scale.

Note: We include extra knuckle springs. The Replacement Knuckle Springs used on Kadee® #1-Scale couplers are sold as the #875 (#820-828, 920 & 921 couplers) or #1875 (1700 & 1800 series couplers) Knuckle Springs. The Replacement Knuckle Springs used on Kadee® G-Scale couplers are sold as the #860 Knuckle Springs.

For Delayed Action Uncoupling use our #842 Uncoupler or #844 Portable Uncoupler.

Kadee® coupler conversion list & coupler conversions are on the Kadee® web site for your convenience.

[www.kadee.com/convpl](http://www.kadee.com/convpl)

# MAGNE-MATIC®

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



## Kadee®

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

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