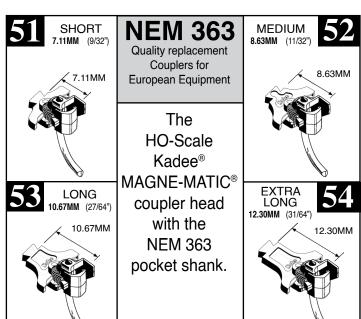


**NOTE:** To secure the knuckle spring more durably, carefully dip the last two coils in DUCO® (or a similar type of glue) or a thick, slow-drying CA glue ("do not" use the thin CA glue because it can easily "wick" into the knuckle and ruin the coupler). Then, slip the end of the spring onto one of the 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 Delayed Action Uncoupling, use our #321 or #322 Between the Rails Permanent Magnet Uncoupler, #308 Under the Track Permanent Magnet, or our #309 Magne-Electric (Electro-Magnet) Under the Track Uncoupler.







Made Entirely in the U.S.A.

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# MAGNE-MATIC®

# **NEM** 363

### Couplers Attelage Kupplungen

The KADEE® MAGNE-MATIC® 51 52 53 & 54 Couplers with dovetail shank to lock in the HO scale NEM-363 dovetail channel.

The NEM-363 dovetail slot allows the coupler shank to be slid up or down to match the #205 or #206 coupler height gauge, allowing the coupler to be operated at the correct NMRA knuckle coupler height.

There are four different lengths of Kadee® NEM-363 coupler shanks to choose from. Use a longer shank where parts of the equipment may interfere with one another. The different lengths are measured from the pulling face of the coupler to the stop shoulder on the shank.

#### INSTALLATION:

The Kadee® NEM-363 knuckle coupler has three mounting options: Allowing the coupler height to match the #205 or #206 Height Gauge. NEM-363 couplers are friction-fit parts. It is best to slide the coupler dovetail from the bottom of the adjacent dovetail channel.

#### Mounting Option One - Factory Equipped NEM-363:

Familiarize yourself with the parts and how they will fit together in Fig. 1. Slide the NEM-363 dovetail coupler slot from the bottom of the factory-equipped NEM-363 dovetail channel. Gently move the coupler up or down to match the #205 or #206 Coupler Height Gauge centerline. Refer to Fig. 4 for more information on mounting.

#### Mounting Option Two - NEM 363 to NEM 362 Adapter:

Familiarize yourself with the parts and how they will fit together in Fig. 2. Snap the NEM 363 to NEM 362 adapter into your car's NEM 362 pocket. Slide the NEM-363 dovetail coupler slot from the bottom into the NEM 363 to the NEM 362 adapter. Gently move the coupler up or down to match the #205 or #206 Coupler Height Gauge centerline. Note: the NEM 363 to NEM 362 adapter will add .085" (2.16 mm) to the coupler shank length, so you may need to use the next shorter NEM 363 coupler for preferred car spacing. You can trim the excess length off the NEM 363 to NEM 362 adapter once you have set the coupler height for a cleaner look. Refer to Fig. 5 for more information on mounting.

#### Mounting Option Three - NEM 363 bolt-on Adapter:

Familiarize yourself with the parts and how they fit together in Fig. 3. Attach the NEM 363 bolt-on adapter with 0-48 screws or M1.4 metric screws on the centerline of the car, referring to the NEM 363 mounting guidelines. Slide the NEM-363 dovetail coupler slot from the bottom into the NEM 363 bolt-on adapter. Gently move the coupler up or down to match the #205 or #206 Coupler Height Gauge centerline. Refer to Fig. 6 for more information on mounting.

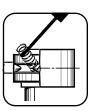
NEM-363 couplers and adapters are made from engineering plastic; engineering plastic doesn't glue permanently. For a more secure dovetail fit, you can use Loctite® Bonding System 681925.

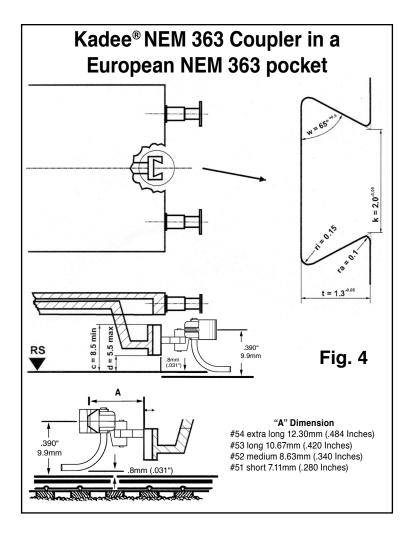
Use our #205 or #206 Height Gauge to check for the correct coupler height and trip pin clearance. The HO-Scale N.M.R.A. standard for coupler height is measured from the top of the rail to the centerline of the coupler head; it should be 10mm, 25/64" (.390"). The coupler trip pin is factory set for the HO-Scale N.M.R.A. standard for coupler height. The trip pin should lightly touch the top of the #205 or #206 coupler height gauge footplate.

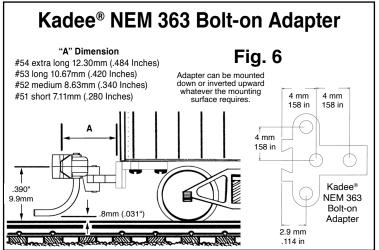
**Note:** NEM-363 couplers use #622 HO-Scale Knuckle Spring. To replace the knuckle spring, use our #241 Dual Tool (Manual



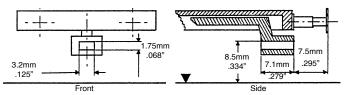
Uncoupling Tool & Spring Pic) and insert it between the last two coils on either end of the spring. Then, slip the end of the spring onto one of the retaining cones in the knuckle and compress the spring until you can slip the other end onto the opposing cone, then withdraw the pick.



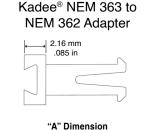




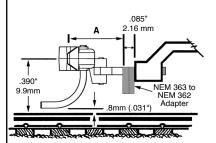




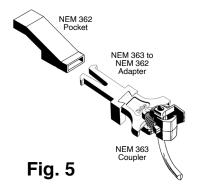
## Kadee® NEM 363 to NEM 362 Adapter



#54 extra long 12.30mm (.484 Inches) #53 long 10.67mm (.420 Inches) #52 medium 8.63mm (.340 Inches) #51 short 7.11mm (.280 Inches)

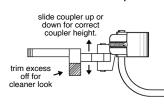


The excess length of the Kadee® NEM 363 to NEM 362 Adapter can be trimmed off for a cleaner look.



Adapter can be mounted down or inverted upward whatever the mounting surface requires.

You may need to go to the next shorter coupler length to accommodate the length of the Kadee® NEM 363 to NEM 362 Adapter



### **DELAYED MAGNE-MATIC® UNCOUPLING**



Stopped over a magnetic uncoupler, allowing slack to occur between the couplers. Knuckles have opened.



Withdraw slightly to disengage couplers. Magnetic force of the uncoupler draws couplers apart, uncoupling them.



Enter over uncoupler again, couplers are in delayed position allowing pushing of car(s) without causing re-coupling.



Withdraw, leaving uncoupled car(s) on desired track. Couplers automatically return to normal coupling position.