

Micro-Trains #1023/#1025 RDA Universal body mount coupler

#1023 is the assembled and #1025 the unassembled version of this coupler.

This type is an older type of body mount coupler than the #1015 and fits rolling stock with a mounting platform height of .275 in (7.0mm) above the rails. This coupler is more prone to “bouncing” than the #1015, #1016 and #2004 types as the centering spring is deflected when pulling.

Read all directions through at least once before you start. Study Fig. 1 to familiarize yourself with the the name of each part.



#1023

PREPARATION:

1. While the coupler parts remain on the sprue, burnish all working surfaces using rounded end of a small drill bit and Micro-Trains “Greas-em” (**Fig. 2**). Give special attention to the inside of draft gear box and draft gear lid.

2. With a sharp hobby knife, carefully cut each part from sprue so no flash remains.

ASSEMBLY:

3. Remove any burrs on the long end of trip pin (**Fig. 3**) and align this end with slot in underside of knuckle shank. Carefully push pin into slot until the pin is visible coming through the top side of slot.

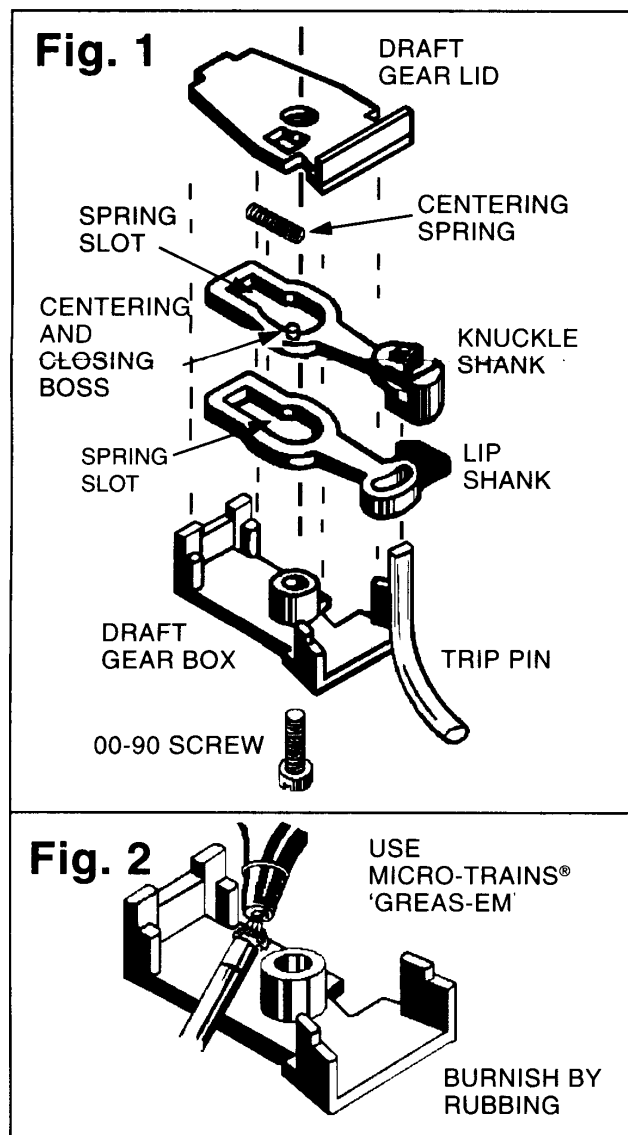
4. Assemble (2) halves of the coupler shank by inserting the trip pin, now in knuckle shank, through elongated slot in lip shank. The (2) halves then fit together (**Fig. 4**).

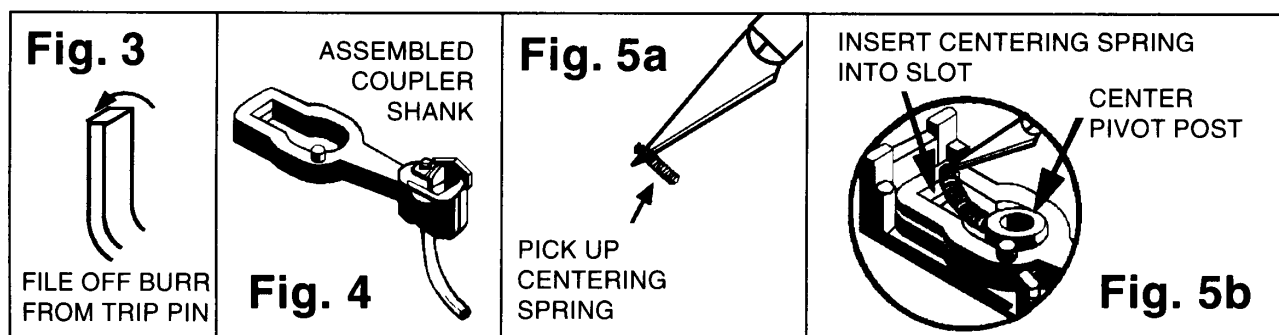
5. Using Micro-Trains #702 Coupler Assembly Jig, place draft gear box with center pivot post hole over pin of jig. Using Micro-Trains #1020 Coupler Tweezers, place assembled coupler shanks over center pivot post of draft gear box with trip pin facing down (so it will extend toward track after assembly).

6. Using a sharp hobby knife, pick up a coiled centering spring by inserting blade between coils at one end of spring (**Fig. 5a**). Insert spring into slot behind draft gear box center pivot post (**Fig. 5b**).

7. Now carefully, so as not to dislodge spring, place draft gear lid over assembly (**Fig. 6**). Make sure the coupler’s small centering bosses are correctly positioned in centering and closing openings of draft gear box and lid.

8. Using Micro-Trains #1020 Coupler Tweezers, hold draft gear box assembly together and test coupler action. Coupler should pivot from side to side easily and return to center position. If the coupler fails to perform properly, remove draft gear lid and make certain the centering spring did not dislodge out of position while assembling.





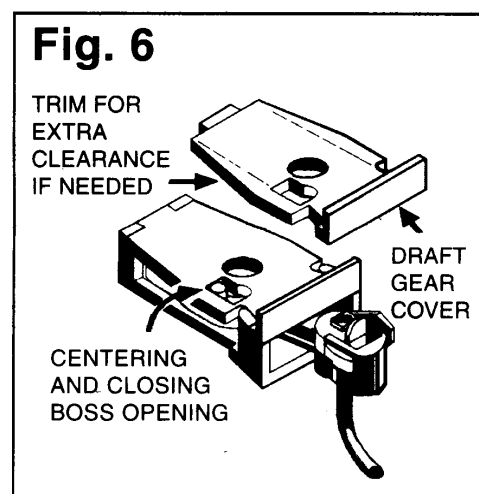
9. After testing for proper coupling operation, you may CAREFULLY touch each corner joint of draft gear box with a small soldering iron just hot enough to melt the plastic. This will heat weld the lid to the draft gear box.

10. Smooth away any irregularities that welding may have caused with a fine file or a sharp hobby knife.

11. After assembling, add a puff of Micro-Trains #231 "Greas-em" into the draft gear box and work coupler back and forth within the box to lubricate and burnish it. **DO NOT USE OIL.**

#1025 MODIFICATIONS:

If additional clearance is needed, due to obstructions such as trucks or for extending coupler shank, modifications may be made to the #1025 coupler (**Fig. 6, 6a and 6b**). Be carefully not to cut away too much or spring may fall out, shank may droop, or centering or closing boss openings may be destroyed.



MOUNTING PREPARATION:

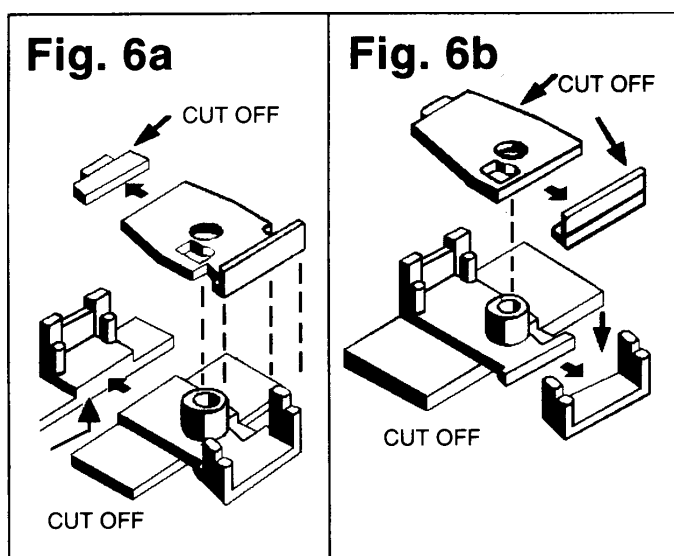
We recommend using Micro-Trains non-magnetic trucks for best results with our couplers. If you plan on using the existing trucks, remove and cut off Rapido-type coupler. Trim is best done with a jeweler's saw or carefully with a sharp hobby knife (**Fig. 7**). Trucks should be in place (and modified if necessary) before you begin height adjustments.

INSTALLATION:

When mounting, be sure coupler assembly is in exact center of the underframe and at correct height. The correct NMRA coupler centerline height is $\frac{7}{32}$ in or .216in (5.5mm) above railtop. Mounting platform height should be .275in (7.0mm) from top of railtop (**Fig. 8**). If the coupler mounting platform is too low, remove material from mounting platform. If coupler mounting platform is too high, shim between mounting platform and coupler assembly. Once mounting platform height is correct, proceed with mounting coupler assembly.

A. Drill a #62 or .038in (1.0mm) diameter coupler mounting hole on centerline of car underframe exactly $\frac{1}{8}$ in (.125in) (3.2mm) back from end of car (**Fig. 8**).

B. Tap hole carefully with 00-90 tap. For your convenience, Micro-Trains offers the #1059 Tap & Drill Package.



C. Mount coupler with 00-90 screw provided. **Do not over tighten.**

TESTING:

Test coupler for proper centering action. Coupler should move freely from side to side, always returning to center position. Check coupler height with Micro-Trains #1055 Height Gauge and trip pin height with #1056 Trip Pin Height Gauge (**Fig. 8**). Coupler should just clear gauge, but not be so low it fouls on turnouts or crossover rails. If trip pin height is incorrect, adjust by pushing or pulling pin up or down in coupler shank. If couplers cross the wrong way over uncoupler, locking themselves closed instead of open, adjust trip pin angle. Trip pin should align with coupler knuckle (**Fig. 9**). To adjust trip pin angle, remove pin by carefully pulling straight down, while holding onto coupler knuckle. Align trip pin with coupler knuckle, then reinstall. **DO NOT** bend or twist trip pin while in coupler.

NOTE:

*If light cars, and cars with steel axles and weights are drawn into the magnet, replace magnetic wheelsets with our non-magnetic wheelsets or modify existing wheelsets the following way: Remove the back wheel pair from one truck on each car (back wheel pair would be the one closest to the center of the car away from the coupler end of the truck) and add one Micro-Trains #1953 truck restraining spring, included in kit. To do this, turn axle cone up, add a dab of saliva to it to hold spring in place, then place spring over the axle cone. Reinstall wheel pair to truck, this spring should create enough drag to keep car from being pulled down by magnet. If not add another spring to the other truck also (**Fig. 10**). Replace the steel weight with white metal or flattened fishing sinker.*

Fig. 7

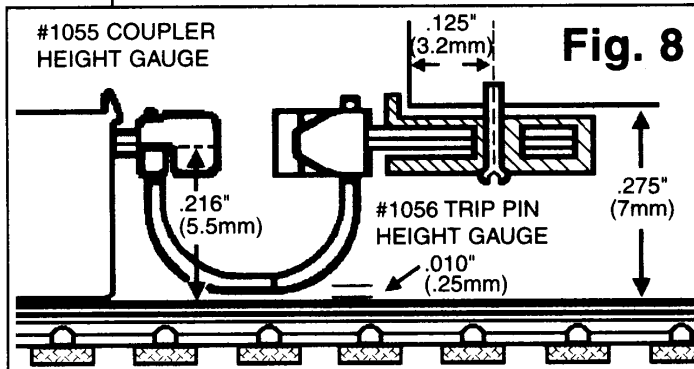
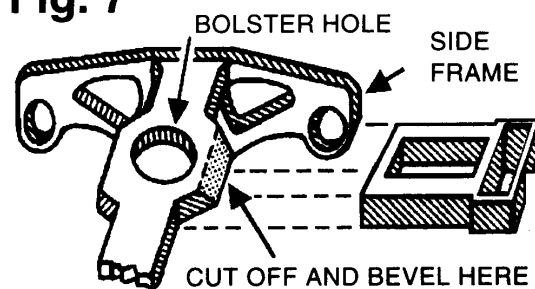


Fig. 9

LINE UP TRIP PIN
WITH COUPLER
KNUCKLE

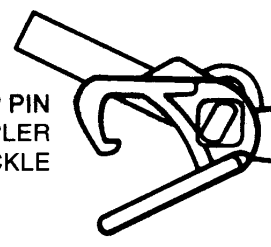


Fig. 10

