

Micro-Trains #1027 Short Shank Body Mount Coupler

This type fits most Micro-Trains cars (box cars and tank cars) with two holes. There is a short locating peg on the top lid of the draft gear box in addition to the hole for the mounting screw so it won't accidentally turn out of alignment. This coupler is more prone to "bouncing" than the #1015, #1016 and #2004 types as the coupler spring is deflected when pulling.

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

PREPARATION:

1. While the coupler parts remain on the sprue, burnish all working surfaces using round end of a small drill bit and Micro-Trains #231 "Grease-em" (Fig. 2).
2. With sharp hobby knife, carefully remove 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 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 Assembly Jig, place draft gear box with center pivot post hole over pin of jig. Place assembled coupler shanks over center pivot post of draft gear box with trip pin facing down (so it will extend towards track after assembly).

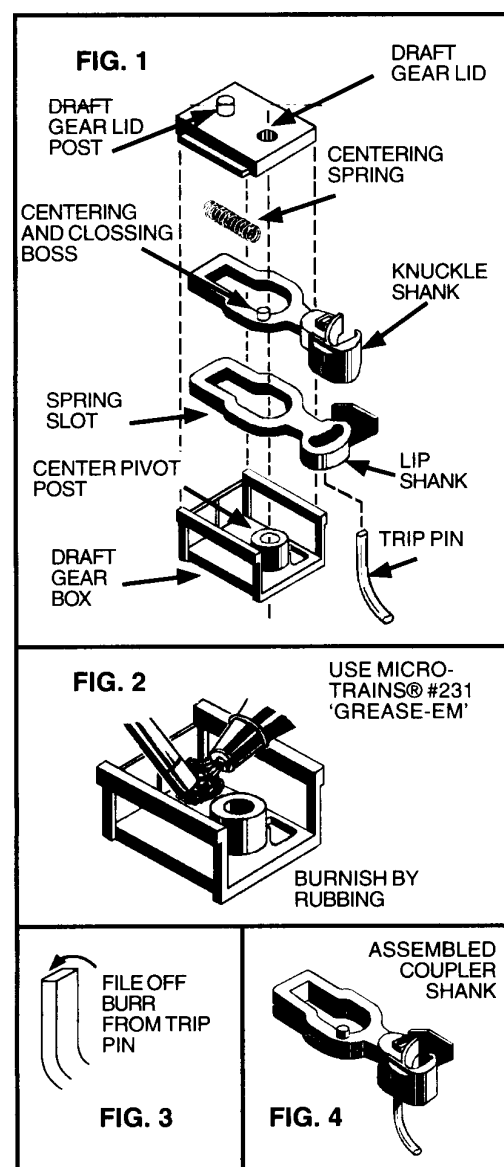
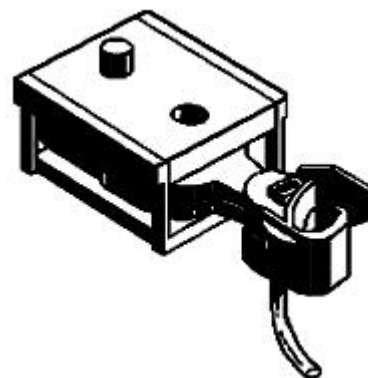
6. Using a pointed hobby knife, pick up a coiled centering spring by inserting blade between coils at one end of spring (Fig. 5a). Insert spring into slot behind draft gear box center pivot post (Fig. 5b).

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 the centering and closing openings of draft gear box and lid.

8. Snap draft gear box and lid together by pinching the sides of the box over the side lip projections of the lid.

9. 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.

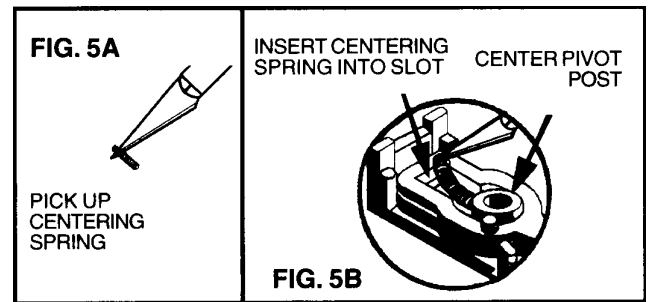
10. **OPTIONAL:** After testing for proper operation, you may CAREFULLY touch each corner joint of draft gear with a small soldering iron just hot enough to melt the plastic. This will heat weld the lid to the draft gear box.



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

MOUNTING PREPARATION:

We recommend using Micro-Trains nonmagnetic trucks for best results with our couplers. If you plan on using the existing trucks, remove wheel pairs and cut off Rapido-type coupler (**Fig. 8**). Trim off as much as possible without destroying the mounting loop. This is best done with a jeweler's saw or carefully with a sharp hobby knife. Trucks should be in place (and modified if necessary) before you begin height adjustment.



INSTALLATION:

Micro-Trains Cars: Boxcar underframes have existing pre-cast draft gear mounting holes. Tap the outside hole on each end with a 00-90 tap. Tank car and hopper cars have similar mounting holes as part of the plastic underframes which are to be similarly tapped. Gondolas and flat cars manufactured prior to the end of 1997 require Adaptor Kit #1026 which includes proper mounting instructions. For your convenience, Micro-Trains offers the #1059 Tap & Drill Package. The coupler mounting platform height on Micro-Trains cars is .293in (7.4mm) and no modification is necessary.

Other cars: Determine coupler mounting height using Micro-Trains #1054 Adjustable Micrometer Height Gauge. When mounting be sure coupler assembly is in exact center of the underframe and at correct height. The correct NMRA coupler centerline height is 7/32in or .216in (5.5mm) above railtop. The area on the underframe where the coupler assembly mounts should be .293in (7.4mm) from railtop (**Fig. 9**). If 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.

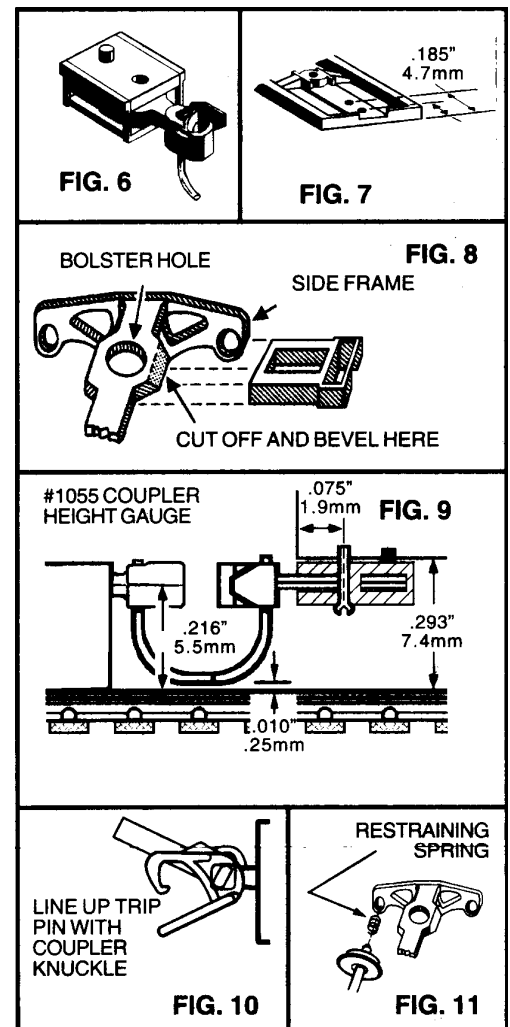
a. Drill (2) #62 or .038in (1.0mm) diameter coupler mounting hole on centerline of car underframe exactly .075in (1.9mm) and .185in (4.7mm) back from end of car (**Fig. 7**).

b. Tap hole carefully with 00-90 tap, then mount coupler assembly with 00-90 screw provided.

c. Test coupler centerline height using Micro-Trains #1055 Height Gauge. The NMRA coupler centerline height is .216in (5.5mm) above railtop.

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. 9**). 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. 10**). 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 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 into magnet. If not, add another spring to the other truck (**Fig. II**). Also, replace the steel weight with white metal or flattened fishing sinker.*