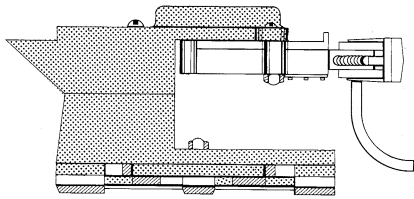




880 G-SCALE  
829 #1-SCALE

### G & #1-SCALE COUPLER HEIGHT GAUGE ASSEMBLY INSTRUCTIONS

This Kadee® coupler height gauge is a multi-purpose tool. Although primarily designed to assist in faster and more accurate mounting of Kadee® couplers, it is also a gauge for mounting surface height, a track width gauge, a wheelsets gauge and a mounting jig for installing our #842 uncoupler.



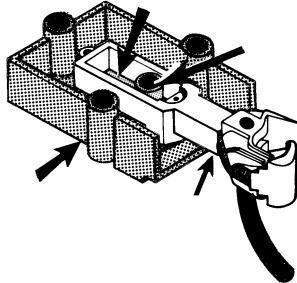
This packet should include: 1 each 2-piece height gauge, 1 each metal plate, 1 each coupler, 1 each draft gear box, 1 each draft gear box lid, 1 each centering spring, 1 each 4-40 x 1" screw, 1 each 2-56 x 7/16" screw, and 1 each 2-56 nut. The #829 also includes 2 each 2-56 x 1/2" screws and 2 each 2-56 nuts. The #880 also includes 2 each 4-40 x 5/8" screws and 2 each 4-40 nuts.

#### ASSEMBLY

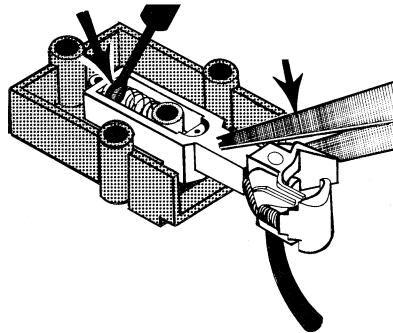
**IMPORTANT:** Before assembling coupler height gauge, remove burrs (if any) from all parts with a file or Xacto® knife.

1. Place coupler into draft gear box as shown in Fig.1

2. Hold coupler and draft gear box together and install centering spring into slot using tweezers or a small screwdriver between the end coils (Fig.2). Place lid on draft gear box being careful not to dislodge the centering spring.

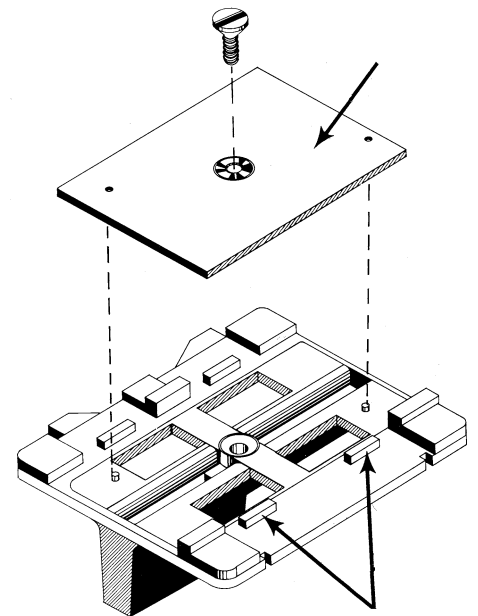
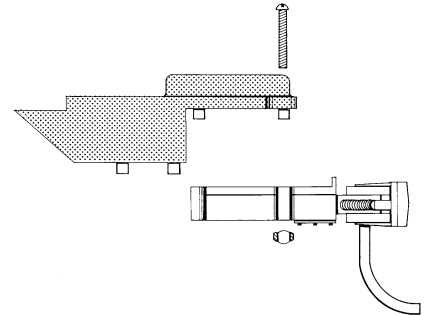


3. Test coupler centering spring by freely working coupler back and forth. If it doesn't work freely and snap back to the center position, take coupler and draft gear box apart and start over. It is possible the spring isn't properly set in place or a burr is preventing proper movement.

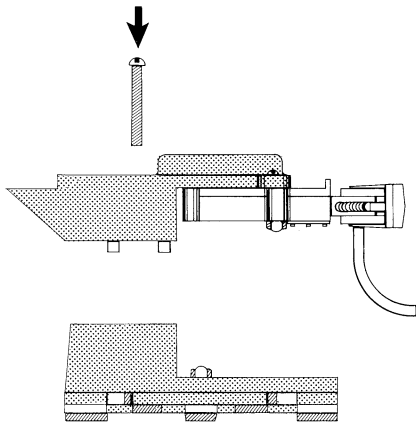


4. Secure the assembled coupler gear box to the upper section of the height gauge using the 2 2-56 x 1/2" screws and nuts supplied for the #829 or the 2 4-40 x 5/8" screws and nuts supplied for the #880 (Fig.3). Place a nut in position and then tighten the screws. This will prevent the nut from turning which could damage the gear box.

5. After aligning the holes in the metal plate with the locator pins on the bottom of the height gauge, use the 2-56 x 7/16" screw and nut to secure the plate. (Fig.4).



6. The height gauge is now assembled using the 4-40 x 1" screw (Fig.5).



#### USING THE HEIGHT GAUGE

A note of CAUTION, the gauge is not insulated and "only" should be used on a nonpowered track or track with the electrical power completely switched off.

#### 1. CAR MOUNTING SURFACE HEIGHT GAUGE:

#1-Scale - For body mounting Kadee® #820 and #821 couplers the distance required from the top of the rail to the car underbody is 1.203"

G-Scale - For body mounting Kadee® #830 couplers the distance required from the top of the rail to the car underbody is 1.203"

Set the height gauge on track and roll car with our a coupler up to the gauge (Fig.6). The car underbody should just clear the top of the gauge. If underbody is too high, add shim(s) of appropriate thickness between coupler gear box and the mounting surface to lower the coupler.

If to low, add shim(s) between truck and body bolster or cut out a space in the mounting surface for the coupler gear box to raise the coupler.

#### 2. COUPLER HEIGHT:

Place the gauge on the track making sure the slots on the bottom are down over the rails and the gauge is level. Roll a car or locomotive up to the gauge, the coupler centerline heights should match exactly. For the most consistent and dependable performance the couplers should be at the same height.

#### 3. TRACK WITH GAUGE:

To use, place gauge between rails (Fig. 8). This is helpful when laying your own rails.

#### 4. WHEEL WIDTH GAUGE:

Roll wheel sets through slots on side of gauge (Fig. 9). Wheels should pass through freely. If wheels hit on outside of slots they are too wide. If wheels hit on the inside of slots they are too narrow. Correct by twisting wheel(s) in or out on axle, or replace wheel pair.

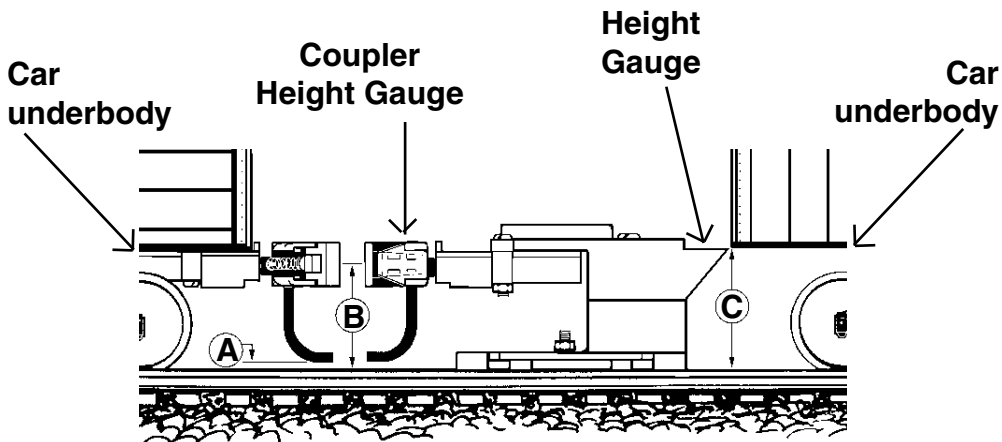
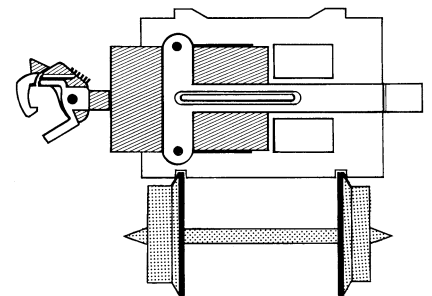
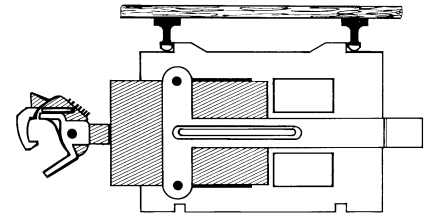


Fig. 7

Fig. 6

(A) Trip pin clearance always .125" (1/8").

(B) Railtop to coupler centerline always (#1 Scale 1.0625" (1 1/16")) (G Scale 1.125" (1 1/8")).

(C) Railtop to mounting surface always (#1 Scale 1.203" (1 13/64")) (G Scale 1.300" about (1 19/64")).

#### 5. UNCOUPLER MOUNTING JIG:

When mounting Kadee's® #842 uncoupler it is important that it be the proper height and centered between the rails. Attach the uncoupler to the plate under the height and centered between the four locators (Fig.4). After cutting out a section of the track ties to the proper depth the height gauge with the uncoupler can be placed on the track to check clearance. If glue is applied to the ties the height gauge will hold the uncoupler in the proper position while the glue is drying.

**MAGNE-MATIC®**

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