MULTI-PURPOSE GAUGE KIT

HO Scale Coupler Height Gauges

205 206

205 Package Contains: one HO scale multi-purpose gauge body, one ᴴᴼ5® coupler, one ‘58 Scale Metal Coupler, one 2-56 x 5/16” self-tapping screw, extra #625 knuckle spring, extra #622 knuckle springs, and ten #208 (.015”) red washers.

206 Package Contains: one HO scale multi-purpose gauge body, one #148 “WHISKER®” Coupler, one #158 “Scale” “WHISKER®” Metal Coupler, one #2 self-tapping screw, extra #625 knuckle spring, extra #622 knuckle spring, and ten #208 (.015”) red washers.

Note: The “Black” ‘625 knuckle spring is for the ‘58 or ‘158 “Scale” coupler & the “Gold” ‘622 knuckle spring is for the ᴴᴼ5 ® or #148 coupler.

The multi-purpose gauge is used for checking for the correct coupler height, trip pin height, between the rails uncoupler height, and track width.

The “Scale” head coupler may be used in the height gauge instead of a “Standard” head coupler. This will be only a cosmetic change and not change the function of the coupler height gauge. All HO scale couplers should be “**only**” measured off the centerline of the couplers knuckle and should “**never**” be measured off the top or the bottom of the couplers knuckle. (See Fig. 1 & 2)

The N.M.R.A. Standard S-1 for HO scale coupler heights is 25/64”. This is measured from the top of the rail to the **“center”** of the couplers knuckle (coupler centerline). This gauge is designed to meet this standard.

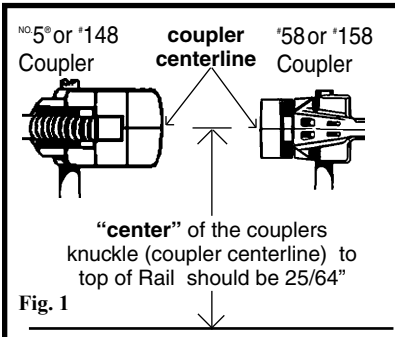


Fig. 1

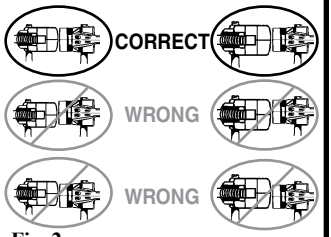
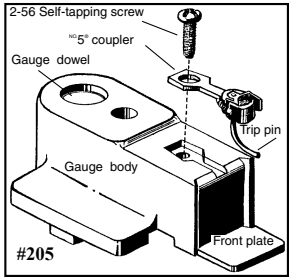


Fig. 2

Coupler height should only be measured from the **“center”** of the couplers knuckle (coupler

#205 Assembly:

First remove any flash or burrs from the gauge body, check the inside of the coupler slot and along the bottom edges. Place the shank end of the coupler into the slot in the top of the gauge (with the trip pin pointing down). Secure with the 2-56 screw and tighten just snug but not too tight. The shank of the coupler should be slightly higher than the upper surface of the gauge.

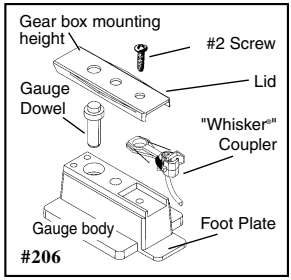


#206 Assembly:

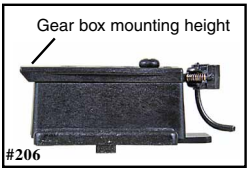
First remove any flash or burrs from the gauge body, check the inside of the coupler box and along the bottom edges. Assemble Height Gauge as shown to the right (#206). Be sure the lid is fully pressed down on to the gauge body. Add a “puff” of #231 Greas-em into the draft gear box. Secure with the #2 screw and tighten just snug but not too tight. Make sure the coupler flexes back and forth freely.

Trip Pin:

The trip pin on the gauge has limited uses and may not be required. You can “snip” it off with a pair of wire cutters, this will make the gauge a little more convenient to use. However, if you choose to keep the trip pin intact you can use it to check the clearance of the opposing coupled car or locomotive. This is especially important on close coupled cars, the “cow catcher” pilots of steam locos, the sloping pilots of “E” and “F” type of diesel locomotives, and snow plows or any item that protrudes enough to interfere with the trip pins.

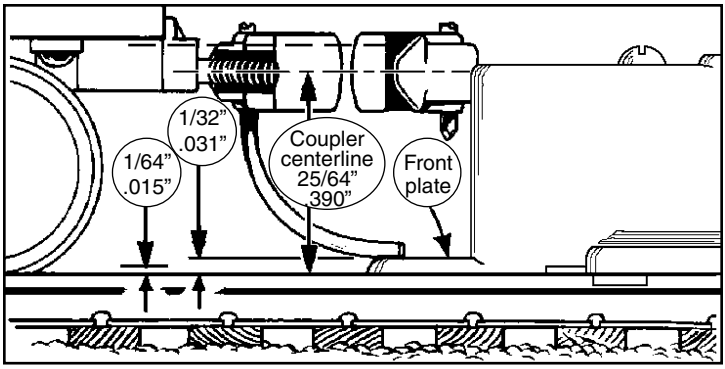


Using the Height Gauges:



NOTE: The #205 gauge is **not insulated** and “**only**” should be used on a nonpowered track or track with the electrical power completely switched off. The hole in front of the dowel can be used to permanently mount the gauge on a nonpowered track.

NOTE: The #206 gauge is insulated and can be used on a powered track. The hole in front of the dowel can be used to permanently



mount the gauge on a piece of track.

Place the gauge on the track making sure the slots on the bottom are down over the rails and the gauge is level.

#206 Gear Box Mounting Height: Set the height gauge on track and roll car up to the non-coupler side of height gauge. The car underbody should just clear the top of the gauge. This feature only applies for centerset couplers.

Coupler Mounting Height: Roll a car up to the coupler side of gauge, the coupler centerline heights should match exactly. For the most consistent and dependable performance the couplers should be at the same height.

If too high, add shim(s) of appropriate thickness between coupler gear box and the mounting surface to lower the coupler.

If too 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.

Trip Pin Height: The trip pin height should just skim, barely touching, the top of the front plate of the gauge. If the pin is too high or too low you can adjust it to the correct height (.015" to .020" above the top of the uncoupler) with our #237 Trip Pin Pliers. Note: Do not bend the tip of the pin upwards. This affects the magnetic pull that may cause coupler operation problems.

Uncouplers Height: To check the height of our between-the-rails uncouplers slide the gauge dowel end first along the rails toward the uncoupler. As the gauge passes over the uncoupler the lower end of the dowel will slide up over the uncoupler and rest on the top. The top of the dowel will indicate if the uncoupler is too high or too low. If the uncoupler is at the correct height the top of the dowel will be flush and even with the top of the gauge. The entire top of the magnetic uncoupler should be 1/64" (.015") above the top of the rail. This ensures consistent dependable uncoupler performance.

Note: It is essential that the uncoupler is centered between the rails and that no edge or corners are higher or lower than the others. Always use our #334 uncoupler gluing jig for installation of the between-the-rails uncouplers.

Kadee's coupler conversion list (www.kadee.com/conv/holist.pdf) will assist you in choosing the best coupler for the particular manufacturer of and model. The style of your model's mounting platform will determine what steps you will need to take if any to adjust the coupler height. You will find Kadee's coupler conversion guide on our web sight (www.kadee.com/conv/ho.htm) to assist you in many coupler conversions.

There are several basic methods of raising or lowering the coupler height and these instructions do not cover all aspects of adjusting coupler heights.

Kadee® has a very large selection of HO couplers that have short, medium and long "overset", "centerset", and "underset" shanks to help achieve correct coupler height and clearance. The underset shank couplers raises the coupler about .050" higher than a centerset coupler and the overset shank couplers lowers the coupler about .050" less than a centerset coupler.

If you are using a "centerset" coupler such as the #5® and you need to raise or lower the coupler a significant amount, again depending on the type of mount, rather than shimming or altering (cutting or filing) the mounting it would be best to choose the next "offset" coupler.

Most freight cars have a small mounting post for the trucks and if the body mounted coupler is a little too low then you can put a thin washer between the truck and car floor. The red washers that are included with the gauge are for this purpose. Do not use too many washers or the car will tilt and wobble too much while running.

Cutting or filing the coupler mounting surface "usually" is the last alternative to achieving the correct coupler height. If you need to cut or file any mounting surface be sure to keep it as straight and level as possible.

The instructions in most of the individual coupler packages also cover coupler mounting and height adjustments.

DELAYED MAGNETIC UNCOUPLING®

Kadee®

Made Entirely in the U.S.A.

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

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