

## **CONVERSION PACKET**

This packet contains the parts required for installation on the LGB™ 2019S/2119 and 2219S Mogul locomotive and tender. If the coupler pocket included in this packet is to be used on <u>other</u> locomotives, a stop plate has been included to keep the springs in place. It is slipped into place as shown in Fig,1 before installing the springs. This packet should contain the following:

2 ea. couplers (1 centerline, 1 large offset)

1 ea. coupler pocket

1 ea. draft gear box

1 ea. pocket lid

1 ea. draft gear box lid

1 ea. stop plate

2 ea. #2 x 3/8" pan head screws

1 ea. #4 x 3/8" screw

1 ea. #2 x 3/8" screw

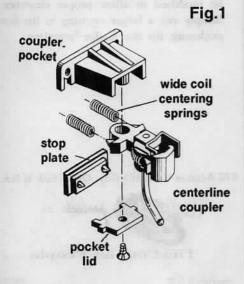
1 ea. #2 x 1/4" screw

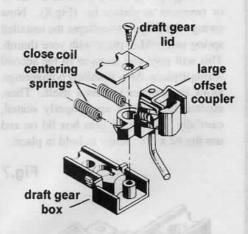
3 ea. centering springs w/ close coils

3 ea. centering springs w/ wide coils

1 ea. knuckle spring

4 ea. white plastic .010" thick shims



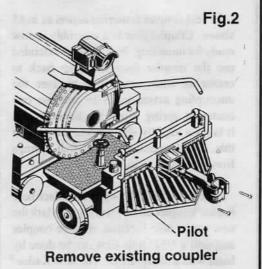


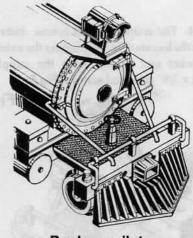
Please read instructions thoroughly before proceeding. The tender will need to be turned upside down or on its side. Place a protective mat underneath and look for protruding parts which could be damaged.

Before assembling, check coupler contact areas for burrs and rough spots. Remove all flash and burrs with a small file or an X-acto® knife. Burnish these same areas with #231 Kadee ®Greas-em (a fine, dry lubricant specially suited for Kadee ®couplers).

## LOCOMOTIVE:

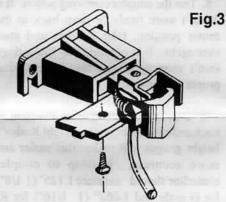
1. Remove the two screws which hold the pilot in place (Fig.2). Pull the pilot out away from the loco and remove the two brass rods to free the pilot. The old coupler can now be removed by releasing the coupler locking tab at the rear of the pilot. Re-install the pilot but do not secure with the screws.



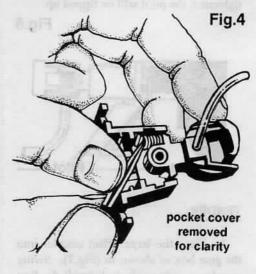


## Replace pilot

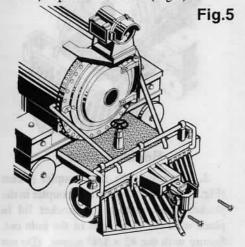
2. Assemble the new coupler pocket (Fig.3). Place the centerline coupler in the pocket and position the pocket lid in place with the large side of the hole out. Secure with the #2 x 1/4" screw. (Do not use the longer #2 x 3/8" screw!)



3. Install one of the wide coil centering springs. A small pair of tweezers will be helpful. Hold the coupler centered in the pocket while you slip one of the springs in from the rear. The spring must fit over one of the spring cones on the coupler shank and is then held in place by the spring stop (see cut away view Fig.4). Now install the second spring.

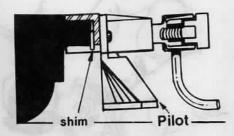


4. The coupler pocket is now installed on the locomotive. Slip it over the existing pocket and secure with the supplied #2 x 3/8" pan head screws (Fig.5).



- 5. Test the coupler centering action. If it doesn't work freely or snap back to the center position, take it apart and start over again. It is possible that the springs aren't properly set or a burr is preventing proper movement.
- 6. Place the locomotive on a section of track and check the coupler height. Kadee's height gauges will make this easier and more accurate. Railtop to coupler centerline should measure 1.125" (1 1/8") for G-scale and 1.062" (1 1/16") for #1 scale. If the pilot tilts down and makes the coupler too low, correct it as follows: Place locomotive on its side and on a protective mat. Loosen the two screws that hold the new coupler pocket in place and slip one or two of the supplied white plastic .010" thick shims behind the pilot in the location shown (Fig.6). The shims should be pushed only part way up so that when the screws are retightened, the pilot will be tipped up.

Fig.6



## TENDER:

 Place the large offset coupler into the gear box as shown in (Fig.7). Swing coupler to either side and install the first centering spring with a small screwdriver or tweezers as shown in (Fig.8). Now swing the coupler to collapse the installed spring and hold in place with your thumb. This will give you room to fit the second spring in place. After installing both springs, allow the coupler to center itself. Then, assured the springs are properly seated, carefully place draft gear box lid on and use the #2 x 3/8" screw to hold in place.

Fig.7

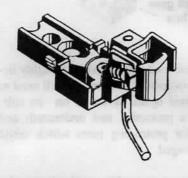
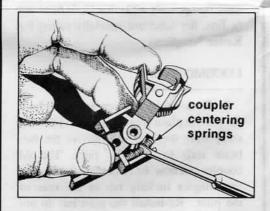
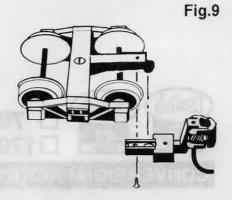


Fig.8

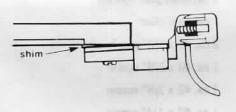


- 2. Test coupler centering action as in #5 above. Coupler gear box assembly is now ready for mounting. Note: If after extended use the coupler does not snap back to center as when new, it is because the uncoupling action tends to collapse one centering spring more than the other and it takes a slightly shorter set. To correct this, simply remove and switch springs from one side to the other.
- 3. Remove the old coupler and place new Kadee \*coupler as shown in Fig. 9. Mark the new screw hole location, remove coupler and drill a 3/32" hole (this can be done by hand with a sharp drill). The new Kadee \*coupler can now be installed with the supplied #4 x 3/8" screw.



4. Place the tender on a length of track and check the coupler height. Railtop to coupler centerline should measure 1.125" (1 1/8") for the G-scale and 1.062" (1 1/16") for #1 scale. If the coupler is too low, loosen the mounting screw and slip one of the white .010" shims which you have cut or folded in half under the rear of the gear box (Fig. 10). This will raise the coupler when re-tightened.

Fig.10



NOTE: To prevent damage to couplers: When you put Kadee \*couplers on your loco and tender and store them in their original shipping box, the box must be modified to allow proper clearance. Simply cut a larger opening in the box enclosure for the Kadee \*couplers.

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The Coupler People