TECHNICAL PROCEDURE

AK-201 UNIVERSAL LOAD SCALE KIT

SUBJECT: Operator's Guide
LIT NO: L597
DATE: March 2008 **REVISION:** D

AK-201 UNIVERSAL LOAD SCALE KIT (ULSK) DESCRIPTION

The AK-201 universal load scale kit provides an economical and accurate way to determine axle load. The 2½-inch diameter gage directly indicates axle load, making it easy to use. The gage is easily calibrated to provide consistently accurate readings and is available in both dry and liquid-filled models. The AK-201 is also available with or without a manual dump feature. The AK-201 has the same footprint and mounting bolt pattern as other Hendrickson load scale kits and comes with push-to-connect fittings.

IMPORTANT: For maximum accuracy, the AK-201 must be properly calibrated before use. However, the liquid-filled models are factory-calibrated and therefore do not need to be calibrated.

If you have a liquid-filled model, skip the following Calibration Procedure and proceed to the section titled OPERATING THE AK-201.

If you have a dry model, it must first be calibrated before it can be expected to deliver a reliable indication of axle load. To calibrate, continue with the following procedure.

CALIBRATION PROCEDURE (DRY MODELS ONLY)

PREPARE THE TRAILER FOR CALIBRATION

1. Load the trailer to its maximum legal load (or as close as possible).
2. Locate a drive-on scale that gives reliable weight measurements. Position the trailer on the scale.
3. During calibration, maintain the proper air pressure in the trailer air reservoir.

CALIBRATING THE AK-201

IMPORTANT: The gage valve should always be in the GAGE OFF position unless performing a calibration or measuring axle load. If left in the GAGE ON position while operating the vehicle, the gage will be damaged.

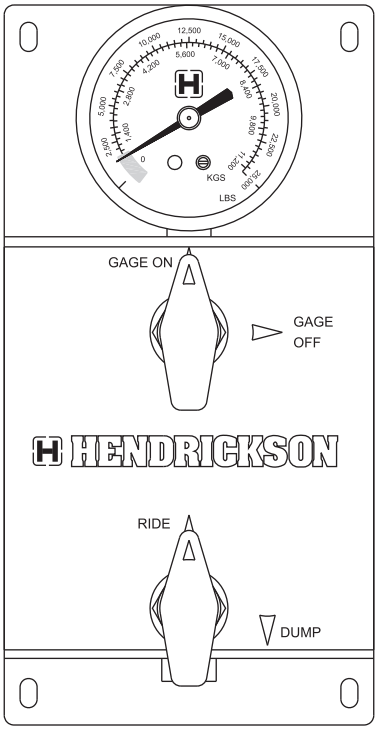

Figure 1. Gage valve in the GAGE ON position (shown with optional dump feature)

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1. Weigh the load on each axle or axle combination.

2. Add all trailer axle weights. Divide this total weight by the number of trailer axles to get the average weight per axle.

3. Rotate the gage valve (the upper ball valve if equipped with the optional air dump feature) counterclockwise to the GAGE ON position (figure 1).

4. Read the AK-201 gage.

IMPORTANT: If the gage indicates the same weight as the average weight per axle calculated in step 2, then the AK-201 does not need to be calibrated. Skip the remaining steps and proceed to OPERATING THE AK-201.

If the gage indicates a weight different from the average weight per axle calculated in step 2, then the AK-201 requires calibration. Continue with the following steps to complete the calibration procedure.

5. Remove the gage's plexiglass face cover by rotating it counterclockwise.

6. Locate the slotted adjustment pin at the bottom of the gage face (figure 2). Using a small screwdriver, rotate this adjustment pin until the gage agrees with the average weight per axle.

7. Replace and firmly secure the plexiglass face cover by rotating it clockwise on the gage.

8. Rotate the gage valve (the upper ball valve if equipped with the optional air dump feature) clockwise to the GAGE OFF position (figure 2).

OPERATING THE AK-201

IMPORTANT: The gage valve should always be in the GAGE OFF position unless performing a calibration or measuring axle load. If left in the GAGE ON position while operating the vehicle, the gage will be damaged.

1. Ensure that the trailer is at the designed ride height.

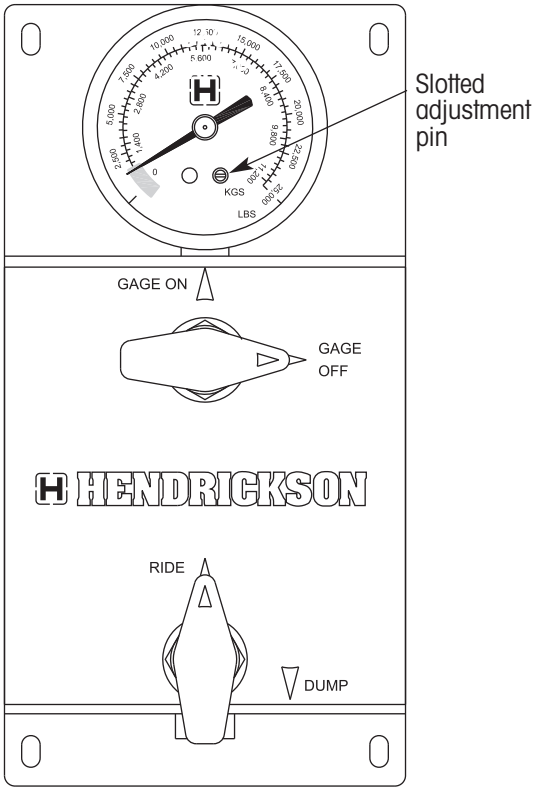


Figure 2. Gage valve in the GAGE OFF position

2. Rotate the gage valve (the upper ball valve if equipped with the optional air dump feature) counterclockwise to the GAGE ON position.

3. Read the AK-201 gage. It indicates per-axle load. Multiply this per-axle load by the number of trailer axles to get the total trailer load.

NOTE: The liquid-filled model indicates psi. To determine the axle load for a given pressure read from the gage, use a pressure versus load conversion table for the specific suspension model or determine the conversion using a certified scale.

4. Rotate the gage valve (the upper ball valve if equipped with the optional air dump feature) clockwise to the GAGE OFF position (figure 2).

OPERATING THE MANUAL DUMP FEATURE (AK-201-1 THROUGH AK-201-11 ONLY)

DUMPING THE SUSPENSION

1. Rotate the dump valve (the lower ball valve) clockwise to the DUMP position (figure 3).

IMPORTANT: Air will immediately flow out the exhaust port at the bottom of the dump valve, which will cause the suspension to lower and rest on the air spring internal bumpers.

RETURNING THE SUSPENSION TO RIDE HEIGHT

⚠**CAUTION: DO NOT operate the vehicle for prolonged periods of time with the suspension riding on the air spring bumpers. Damage may occur to the air suspension system.**

1. Rotate the dump valve (the lower ball valve) counterclockwise to the RIDE position (figure 2). Allow the air system to fully charge.

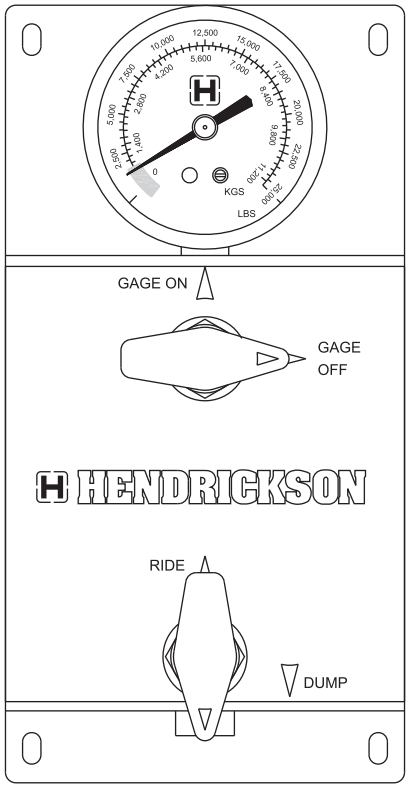


Figure 3. Gage valve in the GAGE OFF position

OPTIONAL AK-201 ENCLOSURE

An optional enclosure for the universal load scale kit is available (figure 4). To order the enclosure, contact Hendrickson customer service at (330) 489-0045 and ask for AK-201-BX1.

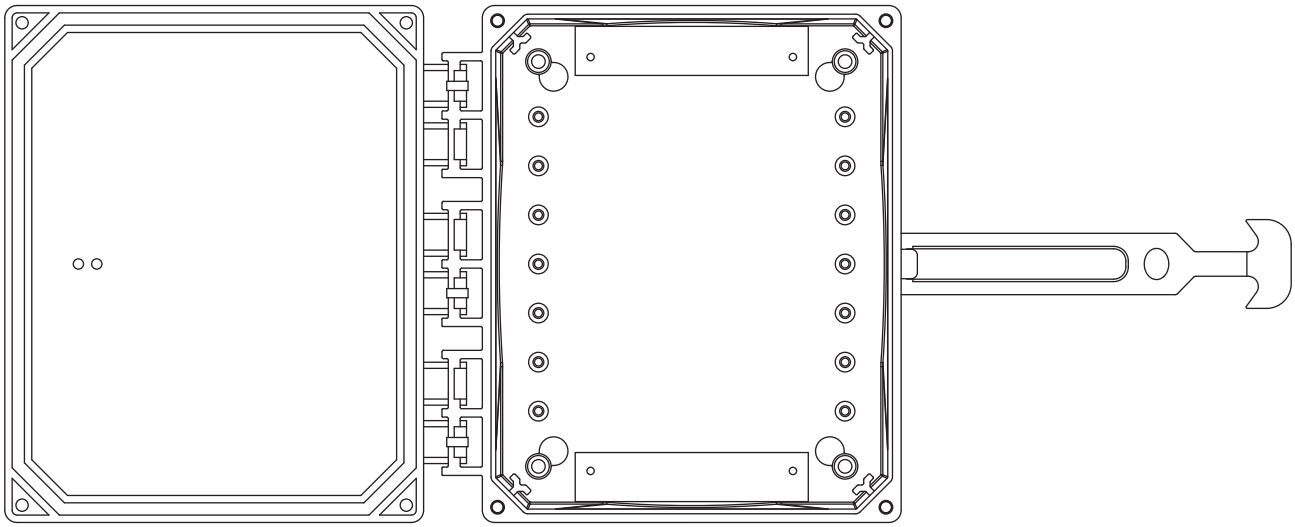
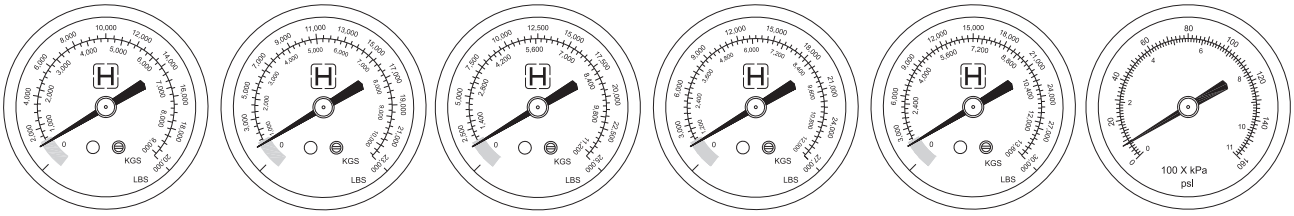


Figure 4. The optional universal load scale kit enclosure (AK-201-BX1).

AK-201 APPLICATION GUIDE



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SUSPENSION MODEL	GAGE TYPE	GAGE RANGE	GAGE	WITH DUMP (AK-201-#)	WITHOUT DUMP (AK-201-#)
AANLS 20K	Dry	0 - 25,000	C	-5	-25
AAL-, AAT-, AANL-, AANT 23K (Standard Air Spring)	Dry	0 - 23,000	B	-3	-23
AAL-, AAT-, AANL-, AANT 23K (Low Pressure Air Spring)	Dry	0 - 25,000	C	-5	-25
AAL 25K, AAT 25K	Dry	0 - 25,000	C	-5	-25
AAL 30K, AAT 30K	Dry	0 - 30,000	E	-9	-29
AAEDL 30K, AAEDT 30K	Dry	0 - 30,000	E	-9	-29
AAZL 23K, AAZL 46K	Dry	0 - 23,000	B	-3	-23
AAZNT 23K, AAZNT 46K	Dry	0 - 23,000	B	-3	-23
HK190T	Dry	0 - 23,000	B	-3	-23
HK230T	Dry	0 - 23,000	B	-3	-23
HKANT 23K, HKANT 46K	Dry	0 - 23,000	B	-3	-23
HKANT 40K	Dry	0 - 20,000	A	-1	-21
HKAT 50K, HKAT 69K/25	Dry	0 - 25,000	C	-5	-25
HKAT 69K23	Dry	0 - 23,000	B	-3	-23
HKARL 46K	Dry	0 - 23,000	B	-3	-23
HTHKR	Dry	0 - 23,000	B	-3	-23
HT190	Dry	0 - 23,000	B	-3	-23
HT190T	Dry	0 - 20,000	A	-1	-21
HT190U	Dry	0 - 23,000	B	-3	-23
HT230	Dry	0 - 23,000	B	-3	-23
HT250T	Dry	0 - 25,000	C	-5	-25
HT250U(Air Spring C-20124)	Dry	0 - 25,000	C	-5	-25
HT250U(Air Spring C-20127)	Dry	0 - 30,000	E	-9	-29
HT250US(Air Spring C-20124)	Dry	0 - 25,000	C	-5	-25
HT250US(Air Spring C-20127)	Dry	0 - 30,000	E	-9	-29
HT300	Dry	0 - 30,000	E	-9	-29
HT300U	Dry	0 - 30,000	E	-9	-29
T-6-068	Dry	0 - 25,000	C	-5	-25
T-6-252	Dry	0 - 27,000	D	-7	-27
T-RL	Dry	0 - 30,000	E	-9	-29
All Models	Liquid	0 - 160 psi	F	-11	-31

www.hendrickson-intl.com

HENDRICKSON®

Trailer Suspension Systems
250 Chrysler Drive, Unit #3
Brampton, ON Canada L6S 6B6
905.789.1030
Fax 905.789.1033

Trailer Suspension Systems
2070 Industrial Place SE
Canton, OH 44707-2641 USA
866.RIDEAIR (743.3247)
330.489.0045
Fax 800.696.4416

Hendrickson Mexicana
Av. Industria Automotriz #200
Parque Industrial Stiva Aeropuerto
Apodaca, N.L., México C.P. 66600
+52 (81) 8288.1300
Fax +52 (81) 8288.1301

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