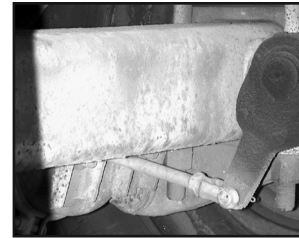


TRAILER Installation Instructions

NOTE: Will work for both **Square** and **Round** axle tubes.

Tools needed: Needle-nose pliers
Pliers
Side cutters
"MIG" welder



Example

Please read instructions before proceeding.

NOTE: Locating the indicator further out on the pushrod and mounting the stationary referencing gauge onto the axle tube in this application provides optimum visibility.

WITH WHEELS CHOCKED, BRAKES RELEASED AND MINIMUM 100 PSI SYSTEM AIR PRESSURE

Step 1. Trim referencing gauge to proper length, being sure not to cut the "stepped" portion (**Fig.1**). Proper gauge length is determined by chamber size, type and maximum stroke at which brakes should be readjusted. (**See chart**)

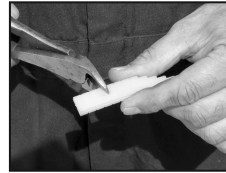


Fig. 1

Step 2. Square Tube: Place gauge into the gauge bracket as shown in (**Fig. 2**) and crimp in place using pliers.



Fig. 2

Step 3. Spread indicator at the split parting and place onto pushrod as shown. *Do not secure in place at this time.*

Step 4. Mounting location should be slightly to the right or left of the indicator and toward the centerline of the trailer. See (**Fig. 3 & 4**)



Fig. 3

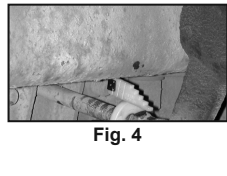


Fig. 4



Fig. 5

NOTE: For **ROUND** axle tube, place gauge bracket against axle tube and, pressing with the palm of your hand, conform bracket to the same shape and curvature. (**Fig. 5**)

Bend the "neck" of the bracket so that gauge is parallel to the pushrod. (**See Fig. 3**) Place gauge into the gauge bracket as shown and crimp in place using pliers.

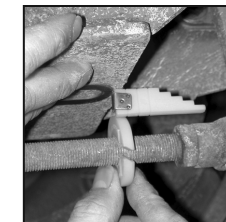


Fig. 6

Step 5. Align the rear of the gauge with the indicator to establish the released position. Once established, use the "MIG" welder to 'tack' gauge bracket to axle tube. (**Fig. 6**)

Square Tube: Bend "neck" of the bracket as needed so that referencing gauge is parallel to pushrod.

Step 6. Secure the BrakeSentry indicator to the pushrod by inserting needle-nose pliers into the two holes provided at either side of the split parting. Squeeze together and insert the retaining clip through the slits. (**Fig. 7**) With clip fully inserted, bend the tabs toward each other and into the recessed area of the indicator. (**Fig. 8**)

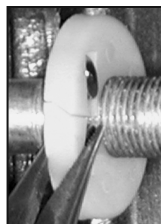


Fig. 8

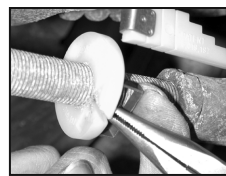


Fig. 7

TRAILER AXLE Installation Instructions

Tools needed: 15/16" wrench or socket
Needle-nose pliers
Pliers
Side cutters



Example

Please read instructions before proceeding.

WITH WHEELS CHOCKED, BRAKES RELEASED AND MINIMUM 100 PSI SYSTEM AIR PRESSURE

Step 1. Trim referencing gauge to proper length, being sure not to cut the "stepped" portion. Proper gauge length is determined by chamber size, type and maximum stroke at which brakes should be readjusted. (See chart) (**Fig.1**)

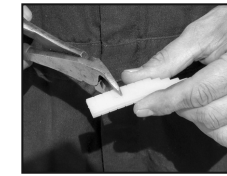


Fig. 1

Step 2. Place gauge into the gauge bracket as shown in (**Fig.2**) Lay gauge bracket on a flat surface, place gauge into the bracket "ears" upright on surface and, using pliers, squeeze "ears" closed.

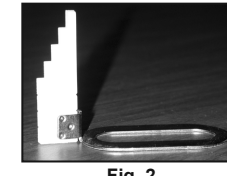


Fig. 2

Step 3. Place indicator onto pushrod against chamber "face" *Do not secure in place at this time.*

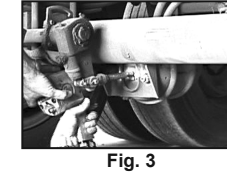


Fig. 3

Step 4. Being certain brakes are fully released, loosen both brake chamber mounting stud nuts by backing them off several threads without completely removing nuts. (**Fig. 3**) *If threads are rusted, apply penetrating oil first*

Step 5. Support the chamber by hand and slip referencing gauge bracket between the brake chamber and the chamber mounting bracket. (**Fig. 4**)



Fig.4

NOTE: Place referencing gauge below pushrod indicator and slightly toward the centerline of the trailer.

Step 6. With referencing gauge placement established, (gauge should be close to, but not be in contact with pushrod indicator) tighten the brake chamber mounting fasteners. This will secure the gauge bracket in place and gauge should be in contact with the chamber "face". (**Fig. 5**)

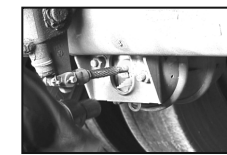


Fig. 5

Step 7. With chamber mounting fasteners retorqued, position the pushrod indicator even/parallel with the back (chamber) side of the referencing gauge. *This provides the brakes-released position reference.*



Fig. 6

Step 8. Apply brakes, (Set parking/spring brake), Indicator will move out with the pushrod.

Step 9. Without disturbing the position of the indicator, secure the BrakeSentry indicator to the push rod by inserting needle-nose pliers into the two holes provided at either side of the split parting. Squeeze together and insert the retaining clip through the slits (**Fig. 6**) With clip fully inserted, bend the tabs toward each other and into the recessed area of the indicator. (**Fig. 7**)



Fig. 7

BRAKESENTRY™ the Visual Brake Stroke Indicator

Each **BrakeSentry™** kit includes:
(2) Indicators, (2) Retainer Clips,
(2) Referencing Gauges, (2) Gauge Brackets.

Unique Truck
Equipment
800-777-4855
616-531-8868
www.uniquetruck.com

PLEASE READ BEFORE INSTALLATION

WARNING: When performing any procedures on air brake systems, all safety precautions should be strictly observed. A proper understanding of blocking wheels and stored energy in air and spring brakes is essential. **ONLY** a professional, certified in air brakes, should perform installation of the BrakeSentry™ kit. Neither Brake Sentry nor any of its agents or distributors assumes any liability regarding the installation or subsequent use of the BrakeSentry™ kit.

The **Chart** on the right is provided to help identify the Maximum Stroke At Which Brakes Should Be Readjusted.

The Referencing Gauge (marked in 1/4" increments) comes at an overall length of 3 inches and must be "trimmed" (cut to proper length) for each specific application. By referring to the **Chart**, simply determine the chamber type, find the readjustment limit (**bold type**) and trim Gauge accordingly.

For example, a typical "Clamp Ring Type-30" chamber has a diameter of 8-1/4" and a maximum 'legal' stroke of 2". The Gauge would be trimmed to 2 inches.

Installation Tips:

(1) Since the 5/8" diameter of the pushrod is a nominal measurement and varies between manufacturers, you may find it helpful to spread the 'legs' of the Clip slightly to aid in the insertion of the Clip into the Indicator.

(2) When inserting Clip from the same side as the needle-nose pliers, simply angle pliers away from the pushrod to allow insertion of the Retainer Clip.

(3) With Clip fully inserted, pull/bend the 'legs' of the Retainer Clip toward each other and into the recessed area of the indicator. **Note:** Properly installed, there should be no gap at the 'split parting' of the Indicator.

Installation Instructions cover the most common applications and give detailed procedures to aid in the installation of the kit. Simply look through the following sections to identify instructions specific to your application.

Maximum Stroke at Which Brakes Should be Readjusted

	Chamber Type	Overall Diameter	Maximum Stroke
Bolted Flange Brake Chambers	A (12)	6-15/16"	1-3/8"
	B (24)	9-3/16"	1-3/4"
	C (16)	8-1/16"	1-3/4"
	D (6)	5-1/4"	1-1/4"
	E (9)	6-3/16"	1-3/8"
	F (36)	11"	2-1/4"
Clamp Ring	G (30)	9-7/8"	2"
	9	5-1/4"	1-3/8"
	12	5-11/16"	1-3/8"
	16	6-3/8"	1-3/4"
	20	6-25/32"	1-3/4"
	24	7-7/32"	1-3/4"
Long Stroke Clamp Ring	30	8-1/4"	2"
	36	9"	2-1/4"
	16	6-3/8"	2"
* for 3" max. stroke type 24 chambers	20	6-25/32"	2"
	24	7-7/32"	2"
	24*	7-7/32"	2-1/2"
	30	8-3/32"	2-1/2"
Rotochambers	9	4-9/32"	1-1/2"
	12	4-13/16"	1-1/2"
	16	5-13/32"	2"
	20	5-15/16"	2"
	24	6-13/32"	2"
	30	7-1/16"	2-1/4"
	36	7-5/8"	2-3/4"
	50	8-7/8"	3"

TRUCK/TRACTOR Installation Instructions

Tools needed: 15/16" wrench or socket
Needle-nose pliers
Pliers
Side cutters

Please read instructions before proceeding.

WITH WHEELS CHOCKED, BRAKES RELEASED AND MINIMUM 100 PSI SYSTEM AIR PRESSURE

Step 1. Trim referencing gauge to proper length, being sure not to cut the "stepped" portion. (Fig.1) Proper gauge length is determined by chamber size, type and maximum stroke at which brakes should be readjusted. (See chart)

Step 2. Place indicator onto pushrod against chamber "face". Do not secure in place at this time. (Fig. 2)

Step 3. Remove one (1) nut and washer from brake chamber mounting stud.

Step 4. Position the gauge bracket onto the mounting stud with the "ears" toward the face of the brake chamber and resting above the chamber's mounting bracket. (Fig. 3) NOTE: The "ears" of the gauge bracket should be placed close to, but not touching, the indicator.

Step 5. Having established position of the gauge bracket, secure in place by re-installing the washer and nut onto the stud and over the gauge bracket. Retorque to specifications.

Step 6. Apply and hold brake (service chambers) or, apply parking brake for chambers equipped with spring brakes. Indicator will move out with the pushrod.

Step 7. Without disturbing the position of the indicator, secure the BrakeSentry indicator to the pushrod by inserting needle nose pliers into the two holes provided at either side of the split parting. Squeeze together and insert the retaining clip through the slits (Fig. 4) With clip fully inserted, bend the tabs toward each other and into the recessed area of the indicator. (Fig.5)

Step 8. Install referencing gauge into the "ears" of the bracket, positioning against chamber face. (Fig.6)

Once positioned, use the pliers to pinch the bracket "ears" together and secure gauge in place. (Fig. 7)

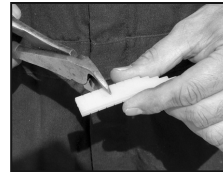


Fig. 1



Fig. 2



Fig. 3



Fig. 4

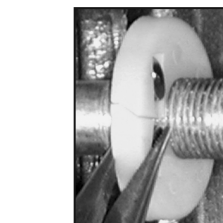


Fig. 5



Fig. 6

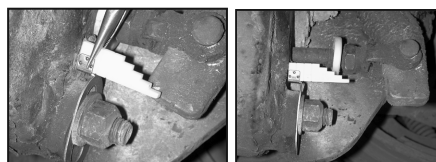


Fig. 7

ARVIN MERITOR/ROCKWELL TRAILER AXLES Installation Instructions

Tools needed: Drill
1/4" (Quarter inch) drill bit
Protective eyewear
(2) 7/16" wrenches
Needle-nose pliers
Pliers
Side cutters
MIG" Welder (Optional)

Please read instructions before proceeding.

WITH WHEELS CHOCKED, BRAKES RELEASED AND MINIMUM 100 PSI SYSTEM AIR PRESSURE

Step 1. Using a pair of needle nose pliers, bend the "neck" of the bracket to match the (approx. 45 degree) angle at which the chamber's pushrod passes through the outer panel of the mounting bracket. (Fig. 1)

Step 2. Trim referencing gauge to proper length, being sure not to cut the "stepped" portion. Proper gauge length is determined by chamber size, type and maximum stroke at which brakes should be readjusted. (See chart)

Step 3. Place trimmed gauge into the bracket as shown in (Fig. 2) and crimp in place using pliers.

Step 3. Spread indicator at the split parting and place onto pushrod as shown (Fig. 3) Do not secure at this time.

Step 4. Position referencing gauge bracket alongside the pushrod indicator to determine mounting location.

Note: For best visibility, mount referencing gauge toward the centerline of the trailer.

(Be certain the gauge and indicator are not in contact with one another.) Once position is determined, mark the mounting surface of the brake chamber-mounting bracket for drilling location. Drill through bracket with a 1/4" (quarter inch) drill bit. (Fig. 4) Or, if using a "MIG" welder is more practical, "tack" in place rather than using fasteners.

Step 5. Using the fasteners provided, secure the referencing gauge bracket as shown in (Fig. 5) making certain gauge and indicator are close, but not in contact.

Step 6. Position the BrakeSentry pushrod indicator even/parallel with the back (chamber) side of the referencing gauge. (Fig. 6) This provides the brakes-released position reference.

Step 7. Secure the BrakeSentry indicator to the pushrod by inserting needle nose pliers into the two holes provided at either side of the split parting. Squeeze together and insert the retaining clip through the slits (Fig. 7)

Step 8. With clip fully inserted, pull and bend the tabs toward each other and into the recessed area of the indicator. (Fig. 8)

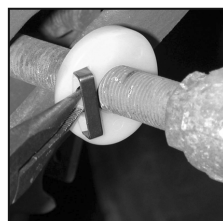


Fig. 7

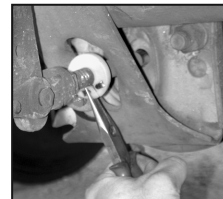


Fig. 8



Example

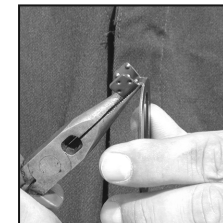


Fig. 1

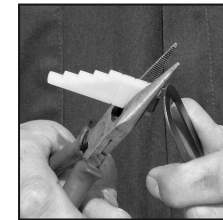


Fig. 2

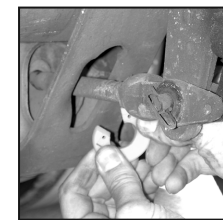


Fig. 3

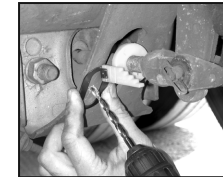


Fig. 4

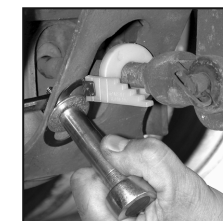


Fig. 5

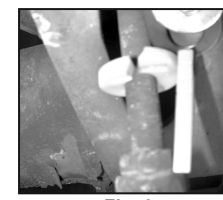


Fig. 6

HENDRICKSON INTRAAX and VANTRAAX Trailer Axles Installation Instructions

Tools needed: Drill
1/4" (Quarter inch) drill bit
(2) 7/16" wrenches
Protective eyewear
Needle-nose pliers
Pliers
Side cutters
"MIG" Welder (Optional)

Please read instructions before proceeding.

WITH WHEELS CHOCKED, BRAKES RELEASED AND MINIMUM 100 PSI SYSTEM AIR PRESSURE

Step 1. Trim referencing gauge to proper length, being sure not to cut the "stepped" portion. (Fig.1) Proper gauge length is determined by chamber size, type and maximum stroke at which brakes should be readjusted. (See chart)

Step 2. Place gauge into the gauge bracket as shown in (Fig. 2) and crimp securely in place using pliers.

Step 3. Spread indicator at the split parting and place onto pushrod behind the clevis, as shown (Fig. 3) Do not secure at this time.

Step 4. Position referencing gauge bracket alongside the indicator to establish mounting location. (Fig. 3)

Note: For best visibility, mount referencing gauge toward centerline of the trailer.

Step 5. Once position is determined, either mark the mounting surface to drill or, if using a "MIG" welder is more practical, "tack" weld gauge bracket in place. (Fig. 4)

If using fasteners, drill a 1/4" hole and secure the referencing gauge bracket as shown in (Fig. 5) making certain gauge and indicator are close, but not in contact.

Step 6. Position the BrakeSentry indicator even/parallel with the back (chamber) side of the referencing gauge. This provides the brakes-released position reference.

Step 7. Secure the BrakeSentry indicator to the pushrod by inserting needle nose pliers into the two holes provided at either side of the split parting. Squeeze together and insert the retaining clip through the slits (Fig. 6)

Step 8. With clip fully inserted, pull and bend the tabs toward each other and into the recessed area of the indicator. (Fig. 7)

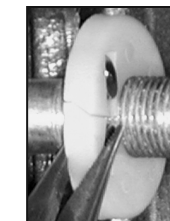
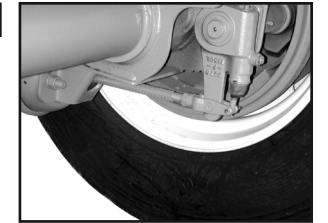


Fig. 7



Example

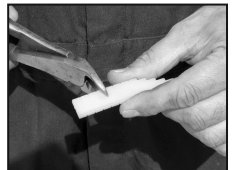


Fig. 1

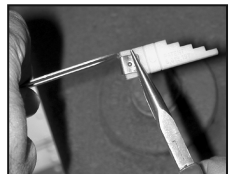


Fig. 2



Fig.3



Fig. 4



Fig. 5

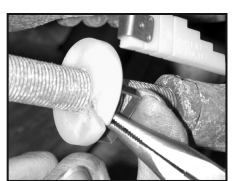


Fig. 6