

Installation Guide

L31235

7/07



AQ15457
ABS Weld-On Sensor Block
Axle Hardware Kit

Installation Instructions
Weld-On Sensor Block
Used with AQ960514 or AQ960515 - Hallex Trailer ABS 2S/1M
(When replacing MBS2 In-Axle Speed Sensor)



This kit includes all components required to replace the WNC MBS2 (In-Axle Speed Sensor).

SAFETY FIRST!

Please follow your company's safety procedure when you install this equipment. Be sure that you understand all instructions before you begin.

Prepare the vehicle as with any part replacement procedure by releasing all air pressure including air tanks, chocking the wheels, and ensuring adequate vehicle support.

IMPORTANT NOTICE

*The data listed herein is correct to the best of Haldex's knowledge and belief, having been compiled from reliable and official sources of information. However, **HALDEX CAN NOT ASSUME ANY RESPONSIBILITY** for possible error or misapplication of the product. Final determination of the suitability of the products for the use contemplated by the Buyer is the sole responsibility of the Buyer. Haldex shall have no responsibility in connection with this suitability.*

IMPORTANT NOTICE

The description and specifications contained in this Installation Manual are current at the time of printing. Haldex Brake Products Corp. reserves the right to discontinue or modify its models and/or procedure and to change specifications at any time without notice.

Removing old In-Axle Speed Sensors

1. Unplug the sensor wires going into the axle housing so the ECM can be removed.
2. Install 1/2" NPT pipe plugs into the axle housing.
3. Remove existing hub caps and In-Axle speed sensors.
4. Use a slide hammer to remove the existing axle spindle plugs. Install the new axle spindle plugs from the kit to prevent contamination.
5. Re-install hub caps.



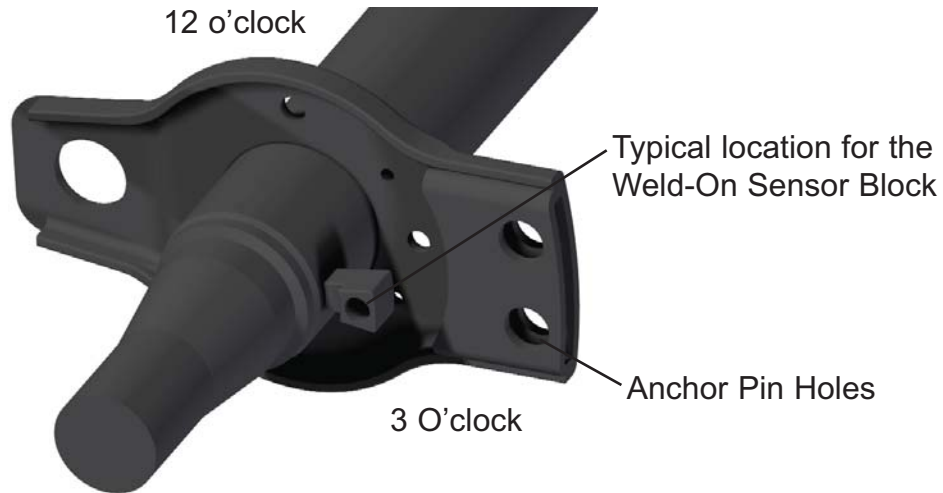
Installing Haldex ABS Weld-On Sensor Block

Step 1. Remove the ABS Weld-On Sensor Block from kit.

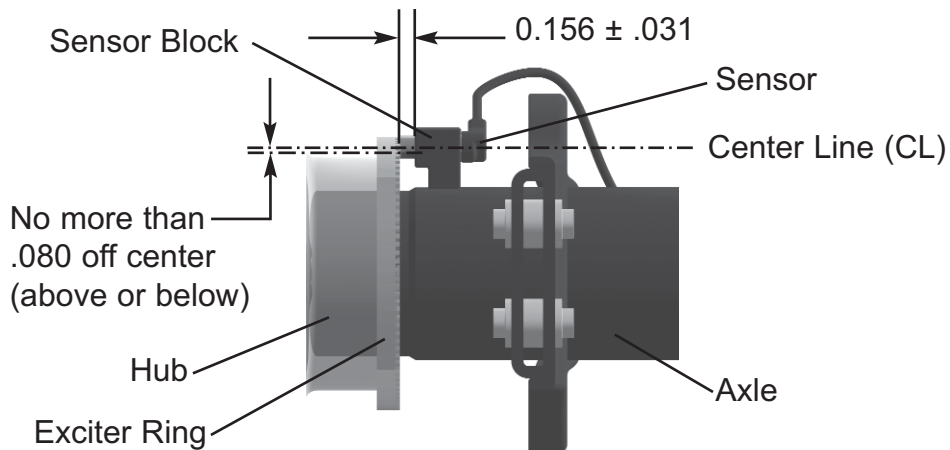


Weld-On Sensor Block

Step 2. The radial clocking position should be between 12 and 3 O'clock. While the ABS performance is not affected with sensor location in the lower half of the axle, the structural integrity of the axle could be compromised.



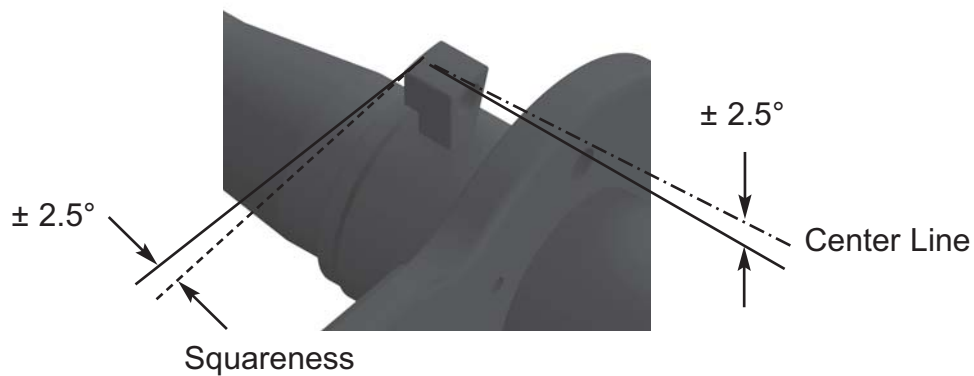
Step 3. The clearance between the block and exciter ring should be $0.156 \pm .031$. Any deviation from this clearance will result in a reduction of the wheel speed sensor signal output.



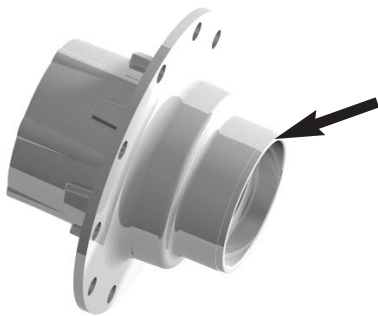
Mounting Exciter Ring on Hub



Step 4. Locate the sensor block squarely to the exciter ring. Weld the sensor block to the axle housing. Any deviation from this squareness will result in a reduction of the wheel speed sensor signal output.



Step 5. Use a wire brush to clean area on the hub before mounting the exciter ring.





Hub and ABS Sensor Placement

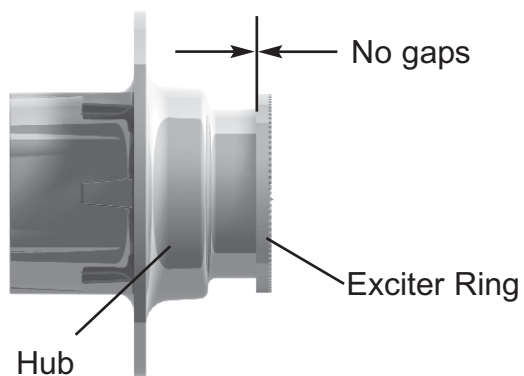
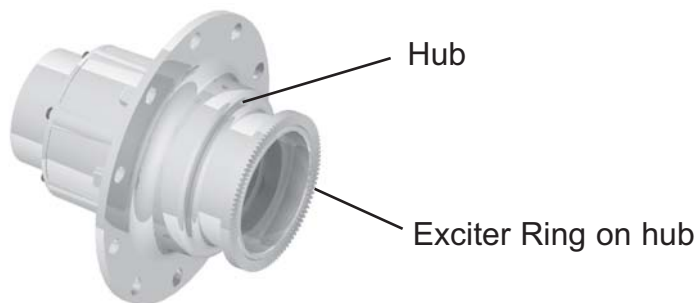
Step 6.

Heat the exciter ring uniformly to approximately 350° F.

Slip the exciter ring onto the machined surface

Ensure the Exciter Ring fits squarely on the machined surface.

When the Exciter Ring cools, it will shrink fit onto the hub. Ensure that the Exciter Ring is secure and does not slip on the hub.

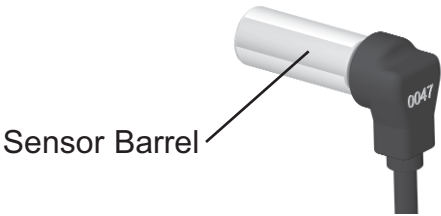


100 Tooth
Exciter Ring

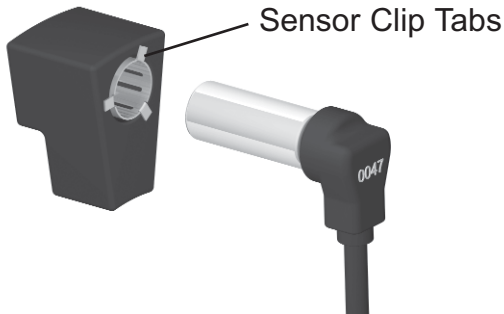
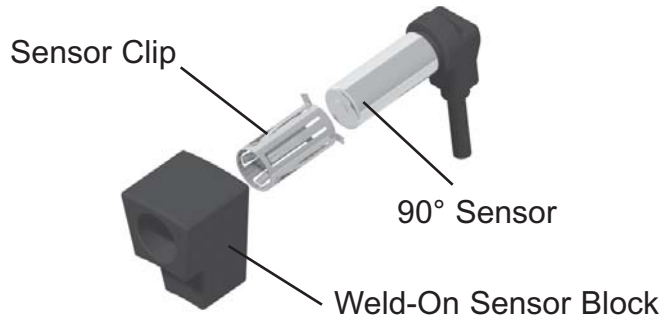
Speed Sensor Cable Routing



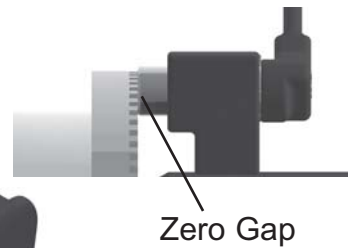
Step 7. Lightly grease the sensor barrel with a Lithium based grease. Use Dow Corning Molycoat CU7439 or equivalent.



Step 8. Insert Sensor Clip into Weld-On Sensor Block bore until Sensor Clip Tabs bottom out.



Step 9. Ensure that the sensor is pushed **firmly** against the Exciter Ring. There should be zero gap between the sensor and Exciter Ring.



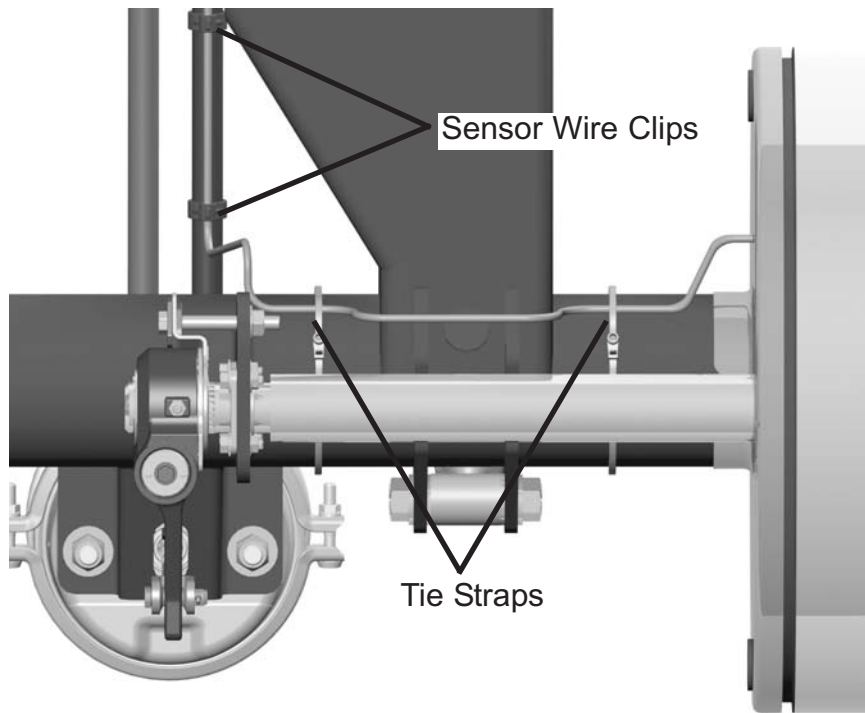


Speed Sensor Cable Routing

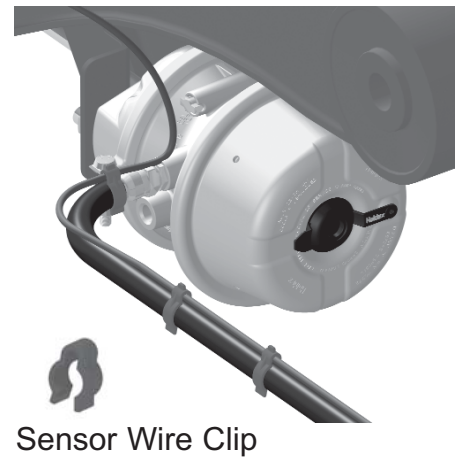
The preferred routing cable procedure is to route the speed **sensor cables on the back side of the axle housing** along the air hoses between the 4 Port ABS valve and the brake actuators.

Tie straps may be used to secure sensor cable to the axle housing. Sensor clips are used to secure speed sensor cables to air hoses.

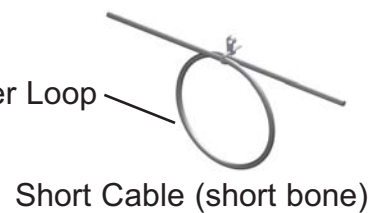
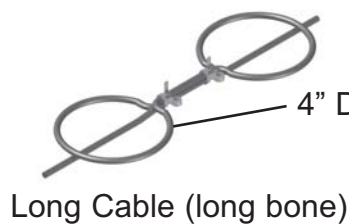
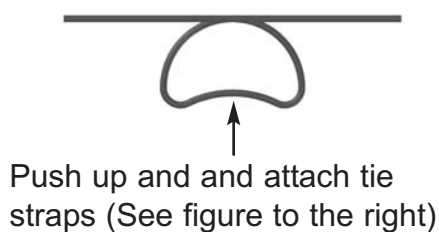
Leave some slack in cable to accommodate movement between chassis components. Excess cable length must not be allowed to hang free. Excess cable must be bundled and attached to the chassis or air lines to prevent damage due to vibration and abrasion. See method below for securing extra cable length.



Sensor wire clips are used to secure sensor cable to brake hoses



Excess cable length may be taken up in either a "Short Bone" or a "Long Bone" method and secured with tie straps. **DO NOT** coil the cable into a loop smaller than 4" in diameter. Do not over tighten the tie straps when the cable is coiled, as this could cause a cable failure.



**Technical Service
&
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**In the U.S. please call:
1-800-643-2374 (#2)**

**In Canada, please call:
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We are enhancing our competitive capabilities and building long-term customer relationships through high performance, low total costs to the customer through the product's service life, ethical business practices and commitment to long-term partnerships. Haldex operations are divided into four business areas: Commercial Vehicle Systems, Hydraulic Systems, Garphyttan Wire and Traction Systems.

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