

RW 403-SK Remote Sensor Connection Kit Instruction Manual

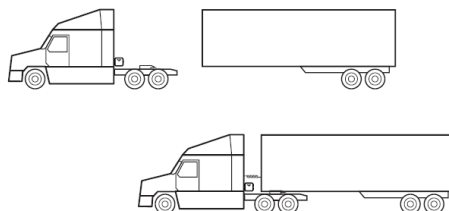
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RW 403-SK Remote Sensor Connection Kit



WELCOME

Thank you for choosing to drive more and scale less! Here at Right Weigh, we are committed to making our products simple to install and easy to use. We understand that installation can vary between vehicles and yours may not be described in this manual. In any event, our technical support team is ready to answer your questions!

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IMPORTANT

Please read the instructions COMPLETELY and thoroughly before installation. Right Weigh, Inc. is not responsible or liable for any negative consequences as a result of improper installation or operation including, but not limited to, product failure or damage that could affect the integrity of the vehicle. The installation steps in this manual are for the sole use of trained installers. Right Weigh, Inc. accepts no responsibility or liability for issues involving, but not limited to, an incorrect installation that occurs from a misinterpretation of the steps outlined in this document.

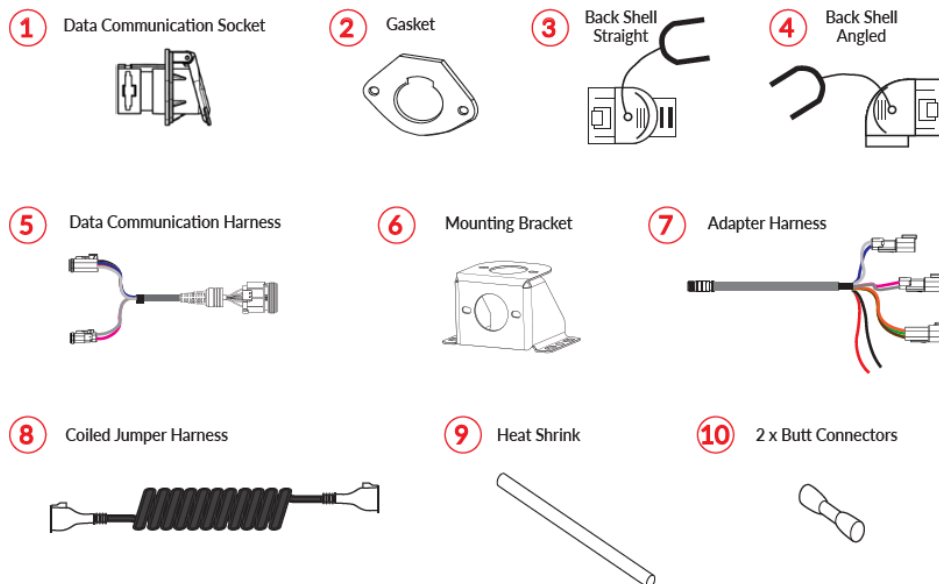
It is the end user's responsibility to be aware of vehicle manufacturer policies before making modifications to the vehicle. Right Weigh, Inc. is not liable or responsible for issues regarding, but not limited to, warranties with other manufacturers. This is the responsibility of the end user. For a more detailed explanation of the warranty and liability of Right Weigh, Inc. please refer to the "Warranty Statement" and "Return Policy & Repairs" sections of this document and www.rwls.com/warranty.

TCA OBM CATEGORY A & B REQUIREMENT

If you are required to have a Transport Certification Australia (TCA) Type-Approved On-Board Mass (OBM) system, the Remote Sensor feature must be DISABLED. This feature is not approved by TCA. For more information on TCA requirements, refer to pages 7-8 in the Installation & Operation Manual (PP-003-0064).

PARTS INCLUDED

Please begin by following the installation steps outlined in the 201 series scale and RTK-01/-02 manuals for proper installation of each component before beginning. To use this feature for Drop & Hook tractor-trailer cases, a Remote Sensor must be installed and calibrated on each trailer in use. The calibration data is stored with each Remote Sensor and no data is lost when disconnecting the remote sensor from the scale. Please follow the instructions outlined in this manual to install the 403-SK installation kit and for Drop & Hook operation.



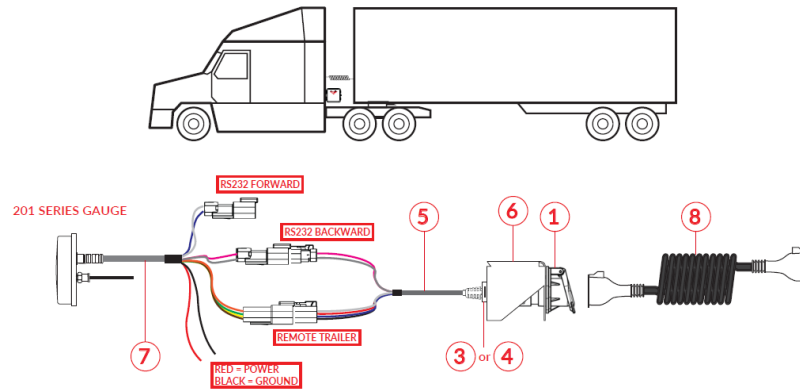
HARDWARE INCLUDED



- 2 x 5/16" Mounting Bolt
- 4 x 3/8-16 Hex Cap Screw

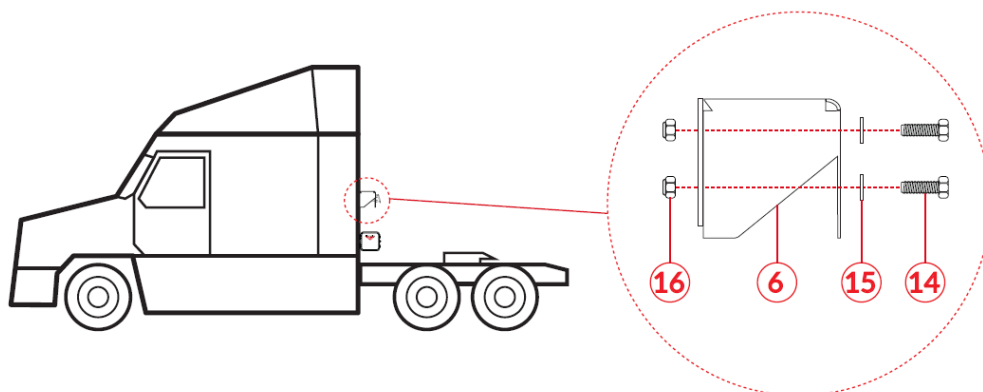
- 2 x 5/16" Flat Washer
- 8 x 3/8" Flat Washer
- 2 x 5/16" Nylon Insert Locknut
- 4 x 3/8-16 Nylon Insert Lock Nut

INSTALLATION

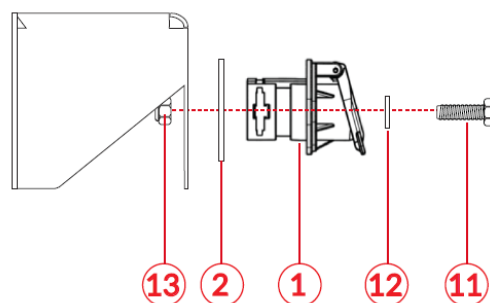


CHOOSE A LOCATION FOR THE DATA COMMUNICATION SOCKET

Mount the data communication socket to the back of the tractor where it is accessible to the driver. Using the supplied hardware, mount the mounting bracket in a convenient location on the back of the truck.

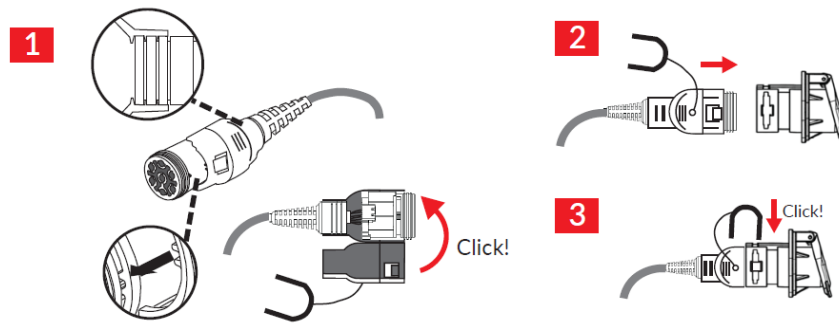


Once the mounting bracket is secure on the truck, mount the data communication socket to the bracket using the supplied hardware. Don't forget to place the Gasket between the Data Communication Socket and the Mounting Bracket.



ASSEMBLE DATA COMMUNICATION HARNESS, BACKSHELL, AND SOCKET

Choose a back shell (straight or angled) that best fits your application. Insert the connector and strain relief bushing into one half of the back shell, making sure the cutouts in the connector are properly aligned with the alignment tabs on the back shell. Fold the other half of the back shell over to fully capture the connector and strain relief bushing; the two halves should snap together as they mate. Insert the connector and back shell assembly into the socket as shown. Lastly, install a locking clip to secure the connection.



INSTALL ADAPTER HARNESS

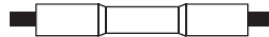
Insert the male connector on the Adapter Harness onto the female connector on the back of the scale. Make sure to orient the connector properly so that the small cutout on both connectors lines up. Once the connector has been pressed in, thread the collar into the scale until it is hand-tight.



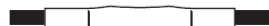
CONNECT TO POWER / GROUND

The two unterminated wires coming out of the Adapter Harness are used to power the scale. Connect the RED wire to a switched positive (+) power source and the BLACK wire to the chassis ground (-). The required supply voltage must be between 9 and 32 volts DC. DO NOT connect directly to a battery or any constant power source, the gauge should be connected to a switched source so that it can be disconnected from power when not in use. Most users connect the power to vehicle marker lights or the AUX/ABS wire. Electrical connections MUST be insulated.

- Crimp each end of the wire into the connector with a wire crimp tool (tool not provided).



After crimping and heat shrinking



- After all, connections have been made, heat shrinks the entire group of splices so that it seals on the outer jacket of both cables.

Add heat shrink

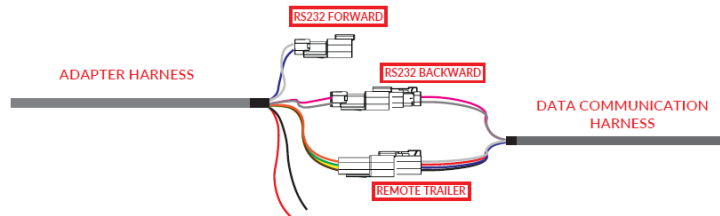


After heat shrinking



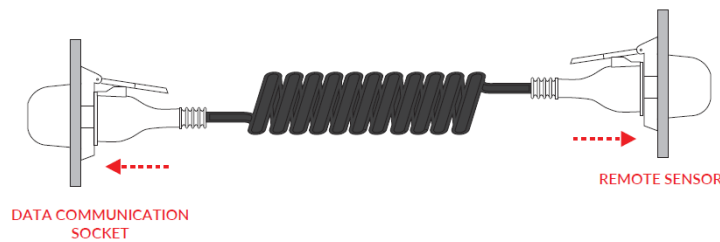
CONNECT ADAPTER HARNESS TO DATA COMMUNICATION HARNESS

Match the 4-pin male connector from the Data Communication Harness to the 4-pin female connector on the Adapter Harness. Press the connectors together until they click into place. RS232 Communication (Optional) – For RS232 communication, connect the “RS232 Backward” labeled connectors to one another.



CONNECT COILED JUMPER CABLE

Connect one end of the Coiled Jumper Cable to the Data Communication Socket on the truck and the other end to the Remote Sensor on the trailer. Once this is connected, the scale will display a weight for the trailer axle group. When disconnected from any trailer, the display will read “0” for the trailer axle group. See the Operating Modes section for information on how to identify which axle group is being displayed and how to cycle to the next axle group. For trailer axle groups with 2 HCVs, please see the “Set Remote Sensor Operating Mode” section to set the Remote Sensor as desired.



This Coiled Jumper Cable can connect to any Remote Sensor on any trailer and display a trailer weight. Each Remote Sensor will need to be connected to a tractor scale and calibrated with an empty and loaded weight before use.

CONFIGURE SCALE

The 201-EBT-01(B), 201-EBT-02(B), and the 201-EBT-04(B) scales can display a separate axle group weight attached to any Right Weigh Remote Sensor. This is most commonly used in drop & hook trailer situations so that one scale – mounted on the tractor – can plug into many different trailers, each with its own remote sensor. At this time, all of the following products should be properly installed on the vehicle:

- 201-EBT-01B or 201-EBT-02B or 201-EBT-04B
- Air Line and Electrical Installation Materials (recommended kit(s): 201-SK and/or 101-SK) 403-SK
- RTK-01 or RTK-02

ENABLE REMOTE SENSOR FEATURE ON SCALE

With the scale OFF, press and hold both the C HIGH and MENU buttons and then press the ON/OFF button. Release all 3 buttons. The scale will display “rsen0” indicating that the Remote Sensor feature is off. Press the UP arrow so that the scale displays “rsen1” to turn this feature on. To confirm your selection, turn the scale off by pressing the ON/OFF button.

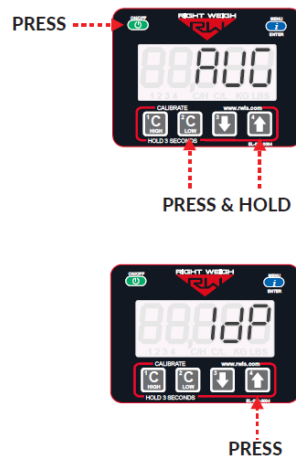


Turning on/off the Drop & Hook Trailer feature will reset any calibration entered into the gauge.

SET REMOTE SENSOR OPERATING MODE

The RTSK-01 has 1 air sensor and the RTSK-02 has 2 air sensors. The RTSK-02 has 2 operating modes that can be set to either average the sensor values together or measure them separately. If you want to measure the air sensors on the Remote Sensor separately to measure 2 separate axle groups, follow these steps to change the operating mode to IDP mode:

1. With the scale OFF, press and hold both C LOW and UP ARROW buttons, and then press the ON/OFF button. Release all 3 buttons. The scale will display “AVG”.



2. Press the UP arrow to change the mode to IDP. Turn off the scale to save your selection. IDP mode will measure both air sensors on the Remote Sensor separately when connected to 2 axle groups.

OPERATING MODES

Each vehicle configuration requires a specific operating mode. The modes available on this gauge are:

- AVG -Tractor or Trailer, One Axle Group
- S-AVG – Tractor Drive and Estimated Steer
- 4CAL – Trailer, One Axle Group with Multiple Configurations

Find your specific vehicle configuration on the table in Appendix A and set the scale to the corresponding operating mode. The load scale can only be set up in one operating mode at a time. If the mode is changed, the calibration data will be reset to factory defaults, requiring re-calibration. If using the Remote Sensor Feature, the feature must be enabled before setting the operating mode. For details on enabling the Remote Sensor feature and setting the operating mode when using this feature, see the Remote Sensor Supplemental Instruction (PP-003-0082).

CHANGING OPERATING MODES

1. With the scale OFF, press and hold both the UP and DOWN arrow buttons, and then press the ON/OFF button. Release all 3 buttons. The scale will display the current mode.



2. Press the UP arrow button to cycle through the operating modes. To confirm your selection, turn the scale off by pressing the ON/OFF button.

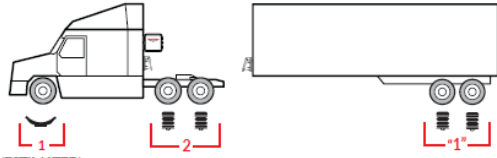

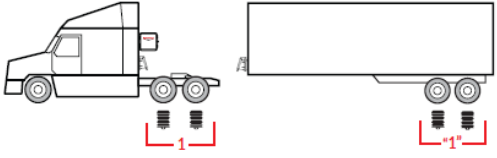

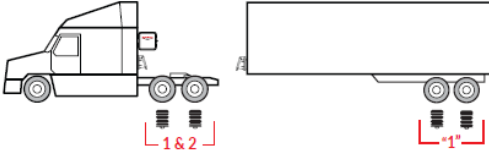

FINISH SCALE SETUP

Before the operation, all axle groups require calibration at both an empty and a loaded weight. For information on setting a CALIBRATION, changing UNITS, setting a PIN code, OPERATION, and other scale information, please refer to the 201 series scale manual.

APPENDIX A



The numbers on the images indicate the axle groups that will be displayed on the gauge. To cycle through the axle group on the gauge, press the MENU button.

VEHICLE CONFIGURATION	OPERATING MODE
 <p>(ESTIMATED)</p> <p>Axle Group 1 - Estimated Steer</p> <p>Axle Group 2 - Air Suspension Single, Tandem, or Tri Axle Group (1, 2, 3, or 4 HCV)</p> <p>Axle Group *1* - Air Suspension Single, Tandem, or Tri Axle Group (1 or 2 HCV)</p> <p>*Recalibration required for steer axle after sliding fifth wheel.</p>	
 <p>Axle Group 1 - Air Suspension Single, Tandem, or Tri Axle Group (1, 2, 3, or 4 HCV)</p> <p>Axle Group *1* - Air Suspension Single, Tandem, or Tri Axle Group (1 or 2 HCV)</p>	
 <p>Air Suspension Single, Tandem, or Tri Axle Group (2 HCV)</p> <p>Axle Group 1 - Right Side Connected to HCV 1</p> <p>Axle Group 2 - Left Side Connected to HCV 2</p> <p>Axle Group *1* - Air Suspension Single, Tandem, or Tri Axle Group (1 or 2 HCV)</p>	

WARRANTY & RETURN POLICY

Warranty Statement

Right Weigh is committed to providing quality products that function as intended, and we always stand behind our workmanship. Our industry-leading warranty is our best effort to express this commitment. Products manufactured or sold by Right Weigh, Inc. are warranted to be free from significant defects in material and workmanship 3 years from the date of purchase. During this time, and within the boundaries set forth in this warranty statement, Right Weigh, Inc. will, at its sole discretion, correct the product problem or replace the product.

This warranty shall not apply to product problems resulting from (1) Improper application, installation, incorrect wiring, or operation outside of the approved specifications of the product. (2) Accidents, faulty suspension parts or power surges (3) Inadequate maintenance or preparation by the buyer or user (4) Abuse, misuse, or unauthorized modification. (5) Acts of God, lightning strikes, floods, fire, earthquakes, etc.

Right Weigh, Inc. assumes no responsibility or liability for any loss or damages resulting from the use of Right Weigh, Inc. products.

In no event shall Right Weigh, Inc. be liable for direct, indirect, special, incidental or consequential damages (including loss of profits or loss of time) resulting from the performance of a Right Weigh, Inc. product. In all cases, Right Weigh, Inc.'s liability will be limited to the original cost of the product in question. Right Weigh, Inc. reserves the right to make improvements in the design, construction, and appearance of products without notice.

Return Policy and Authorization

Before returning any product, please obtain a Return Merchandise Authorization number (RMA#) by calling Customer Service at +61 418 622840 or emailing leigh@rwls.com.au. Include the RMA# and information regarding the reason for the return with the returned product. Shipping costs for returns must be prepaid by the customer. For your protection, items must be carefully packed to prevent damage in shipment and insured against

possible damage or loss. Right Weigh, Inc. will not be responsible for damage resulting from careless or insufficient packing or loss in transit.

An RMA# must be obtained by the original purchaser before any product can be returned. Only new, unused products may be returned. Installed, used, damaged, modified or customized products can not be returned for credit. Credit will be issued to the original purchaser after evaluation by Right Weigh, Inc.

Repairs/Replacements

An RMA# must be obtained before any product can be returned. Right Weigh, Inc. will evaluate returned products at no charge. If Right Weigh, Inc. determines that the returned product is under warranty it will repair the product or parts thereof at no charge, or if unrepairable, replace it with the same or functionally equivalent product whenever possible. Right Weigh, Inc. will return the product at its expense via a shipping method (carrier to be at the sole discretion of Right Weigh, Inc.) equal to or faster than the method used by the customer.

Products or parts thereof not covered by warranty will be repaired or replaced at customer expense upon authorization by the customer. Right Weigh, Inc. will return the repaired product at the customer’s expense via a shipping method (carrier to be at the sole discretion of Right Weigh, Inc.) equal to or faster than the method used by the customer.

Thank you for choosing to drive more and scale less! Here at Right Weigh, we are committed to making our products simple to install and easy to use. We understand that installation can vary between vehicles and yours may not be described in this manual. In any event, our technical support team is ready to answer your questions!







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Documents / Resources

	<p>RW 403-SK Remote Sensor Connection Kit [pdf] Instruction Manual 403-SK Remote Sensor Connection Kit, 403-SK, 403-SK Connection Kit, Remote Sensor Conn ection Kit, Sensor Connection Kit, Remote Sensor Kit, Connection Kit</p>
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References

-  [Manuals & Resources - Right Weigh](#)
-  [Home - Right Weigh](#)
-  [Setting up your scale - Right Weigh](#)
-  [Warranty & Return Policy - Right Weigh](#)

Manuals+.