

Self-Weighing Truck and Trailer Scales[™]





LoadMaxx On-Board Scales TRUCK SCALE SYSTEM

Calibration and Operations Manual

PN: 901-0116-000 R1

Table of Contents

LoadMaxx On-Board Scales	1
MODEL NUMBER NOTE	5
I. LOADMAXX TRUCK SCALE SYSTEM OVERVIEW	6
I.A. Scale Display Overview	7
II. CALIBRATION	
II.A. Preliminary Considerations	8
II.A.1 Lift axle considerations	9
II.B. Calibrating the Truck Scale Overview	9
II.D. Manual Calibration Procedure	
II.D.1. Calibrating Empty Weights	10
II.D.2. Calibrating Heavy Weights	
II.E. Calibration by Direct Entry of RATIO and OFFSET	12
II.F. Adjusting the Calibration	12
III. OPERATION	14
IV. FUNCTIONAL OPERATIONS	14
IV.A. Weight Displays	14
IV.B. How-To-Weigh instructions	15
IV.C. Creating a PIN	16
IV.D. Large Character Display	16
IV.E. Alarm Function	17
IV.E.1. Alarm Function Programming Procedure	18
IV.E.1.a. Turning the Alarm Feature On or Off	18
IV.E.1.b. Alarm Weights	
IV.F. Languages	19

	IV.G. Display Backlight and Set-Up	19
/.	QUICK REFERENCE MENU DIRECTORY	20
/I.	MENU OPERATIONS AND DEFINITIONS	21
,	WEIGHTS DISPLAYS	21
	MAIN MENU	21
	WEIGHTS	21
	ALARMS	21
	PRINT, SETUP MENU	
	PRINT MENU	21
	SYSTEM SETUP MENU	21
	CALIBRATION	21
	SYS CONFIG	
	SET PIN #	21
	SYS CONFIG MENU	21
	DISPLY SETUP	21
	SCALE TYPE	22
	DISPLY SETUP MENU	22
	WEIGHT SETUP MENU	22
	LBS / KGS	22
	2 OR 3 LINES	22
	MORE OPTIONS	
	WEIGHT SETUP MENU	22
	LBS / KGS	22
	2 OR 3 LINES	22
	FIRST DISPLY	22
	SCALE TYPE MENU	22
	MODEL NUMBER	22
	DATA/REPORT	23
	MORE OPTIONS	23
	CAN PROTOCOL	23

INCLINOMETR	23
SHOW / HIDE MENU	23
SHOW GVW	23
SHOW STEER	23
SHOW HELP	23
SYSTM STATUS	24
DIAGNOSTICS: ALARM WEIGHTS MENU	24
ALRM WEIGHTS	24
TEST ALARM	24
DIAGNOSTICS: COMLINKS MENU	24
A/D READINGS	24
CALIB DATA	24
COMLINK ID	25
VII. SYSTEM TROUBLE SHOOTING	25
VII.A. INCORRECT WEIGHT READINGS	26
VII.B. SUSPENSION TROUBLESHOOTING	26
VII.B.1. Ride Height	26
VII.B.2. Linkage	26
VII.B.3. Height Control Valve	27
VIII. MAINTENANCE	27
IX. CUSTOMER SUPPORT	27
X. Index of Application Notes	28
XI. Limited Warranty	29
XI.A. Procedure for Warranty Claims	30
Installation data	31
Notes	33
Notes	34
Notes	35

MODEL NUMBER NOTE

This user guide is intended for use with vehicles that have sensor configurations represented by the following model numbers:

Configuration	Drive	Steer
5809	Deflection Sensor	Hide
5810	Dual Deflection Sensor	Hide
5814	Dual Deflection Sensor	Deflection Sensor
5817	Deflection Sensor	Deflection Sensor
5818	Dual Deflection Sensor	Dual Air Sensor
5820	Deflection Sensor	Dual Deflection Sensor
5824	Dual Deflection Sensor	Air Sensor
5829	Dual Deflection Sensor	Dual Deflection Sensor
5833, with lift axle air sensor	Dual Deflection Sensor	Deflection Sensor
5834, with lift axle air sensor	Deflection Sensor	Deflection Sensor

I. LOADMAXX TRUCK SCALE SYSTEM OVERVIEW

The LoadMaxx on-board scale converts truck suspension loads to an accurate on-ground weight. Once calibrated correctly, as described in this manual, the scale will display accurate axle, GVW and Net Payload weights for any load.

The scale will display the actual on-ground weight of each spring suspension axle group to within $\pm 2\%$ of its maximum GVW load. For spring suspensions whose load is measured by a load cell or deflection sensor, an axle group is defined as the set of axles supporting that suspension.

The scale will display the actual on-ground weight of each air suspension axle group to within 300 pounds (140 kgs.) For air suspensions, an axle group is defined by the Height Control Valves (HCV), or leveling valves, on the air suspension. For instance, a tandem drive axle suspension typically has only one HCV, so the two drive axles are referred to as a single axle group and the weight displayed will be for the total tandem weight.

Once the LoadMaxx is calibrated for weight, it is not necessary to recalibrate unless the suspension characteristics change. For details see "Troubleshooting".

- After installing a deflection sensor, operate the vehicle for at least one week before calibrating that axle group, to ensure that the installation settles. (Waiting a week without operating the vehicle will not settle the installation.)
- When calibrating and weighing, gently roll the vehicle to a stop on a flat level surface, with the wheels straight and the brakes released for the last few feet, to release suspension binding. Calibrating or observing weight readings with the brakes engaged will result in inaccuracy.



- CAUTION! Please ensure that you are following all safety precautions and company guidelines regarding rolling conditions.
- If your vehicle has an air suspension equipped with airsuspension dump valves, Air-Weigh recommends that the air suspension be momentarily exhausted and re-inflated before calibrating or weighing. 5 to 10 seconds of air dump is normally sufficient. This will improve repeatability and accuracy.

I.A. Scale Display Overview

Before using your Air-Weigh Truck Scale, it is necessary to calibrate it. First, it's a good idea to become familiar with the Scale Display.

Below is a definition of the use of each button. The function and use of these buttons remain the same throughout all operations of the scale.



I.B. Front Panel Buttons

- When the Scale Display backlight is off, the first button push turns on the backlight, with no other effect.
- Depressing the ESC key (with the backlight lit) changes the Weights
 Display to the Main Menu, depicted above. It changes all other menus
 and displays to the previous screen. If you are entering a number,
 depressing the ESC key clears the numeric entry without changing the
 scale's value.
- The cursor location on the 5800 is indicated by the blinking line. In the Scale Display images below, an orange highlight indicates the cursor location.
- 4. To change the cursor location, or to set a numeric value, depress the up or down arrow keys ▲ or ▼.
- 5. The instruction "Select [some menu item]" will appear frequently in the text that follows. To select a menu item, depress the ENTER key after setting the cursor to the specified line, that is, after making the specified line start blinking.
- 6. To enter a numeric value, depress the ENTER key after setting the value to the desired number.

II. CALIBRATION

There are two methods of calibrating the LoadMaxx Truck Scale. The usual method is by entering the EMPTY weights into the scale system when the vehicle is empty, and entering the HEAVY weights into the scale system when the vehicle is fully loaded. It's recommended to have a full tank of fuel when calibrating the steer and drive axle groups.

When selecting this calibration method, you MUST enter empty weights when the vehicle is empty and heavy weights when the vehicle is loaded heavy. Failing to do so will result in inaccurate weight readings.

Alternatively, for those with identical suspensions on several vehicles, it may be more convenient to enter the RATIO and OFFSET calibration data directly, if these are known.

Use only one of these methods (the usual method, or alternatively, direct ratio and offset entry) to calibrate the scale.

Once calibrated, if a suspension's weight is always incorrect by the same amount on the empty and heavy weights, it is easy to adjust the scale to correct it by using the ADJUST function.

II.A. Preliminary Considerations

The accuracy of the LoadMaxx Truck Scale depends on the accuracy of the certified scale used to calibrate or check-weigh. Ensure that the inground scale is reliable, recently certified and in good repair. It is preferable to obtain all weight tickets from the same certified scale. This ensures comparative accuracy. Segmented scales, those that provide individual axle group weights, are preferred. When segmented scales are not available, take extra precaution in calculating weights.

For the best calibration results, the truck should be:

- Operated for a week after installation of the deflection sensor
- Gently rolled to a stop on a flat level surface with wheels straight
- Brakes unused for the last few feet
- Brakes released and wheels straight while weighing
- For models with air suspensions:
 - Keep engine running
 - if possible, deflate the air suspension for 5 to 10 seconds, and then re-inflate to factory-specified ride height



CAUTION! Please follow all company safety guidelines during weighing and calibration.

Once the LoadMaxx Truck Scale is calibrated, it is not necessary to recalibrate unless the suspension characteristics change.

Assigning a PIN number during the system set-up process will protect the calibration procedure from tampering. Normally a PIN number is not assigned until AFTER the scale has been calibrated. See Section IV.C for PIN information.

II.A.1 Lift axle considerations

If your software configuration is 5833 or 5834, refer to Product Application Note Calibrating the Lift Axle, Air-Weigh P/N 901-0117-000.

All other users should always *calibrate with the lift axle up*. With the lift axle up, weight readings of all calibrated axle groups, as well as GVW and Net readings, will all be accurate. With the lift axle down, weight readings of all calibrated axle groups will still be accurate. However the GVW and the Net will be inaccurate with the lift axle down for all software configurations except 5833 and 5834.

II.B. Calibrating the Truck Scale Overview

For Manual Calibration, the EMPTY and HEAVY axle weights must be entered by the user. When calibrating using this method, the EMPTY weights <u>must</u> be entered while the vehicle is empty, and the HEAVY weights <u>must</u> be entered while the vehicle is fully loaded. Failure to calibrate scales when vehicle is actually empty and when it has a true heavy load will result in inaccurate weights.

Air-Weigh recommends that both empty and full weights be taken on the same reliable, certified scale, preferably a segmented scale that will provide axle weights.

The order of calibration is not important; however, both EMPTY and HEAVY weights must be properly entered before the weight display is accurate. Once the calibration procedure is properly completed one time, the EMPTY or HEAVY weights can be updated or re-calibrated individually.

II.D. Manual Calibration Procedure

Remember, EMPTY or HEAVY weight calibrations can be entered in any order, but the HEAVY weights must be entered while the truck is loaded, and the EMPTY weights must be entered while the truck is EMPTY. Additionally, the scale must have both EMPTY and HEAVY weights entered before calibration is complete and accurate weights are displayed.

The following two pages give step-by-step procedures for entering the EMPTY and HEAVY calibrations, respectively.









II.D.1. Calibrating Empty Weights

NOTE FOR REFUSE TRUCKS: All lift axles must be **raised**, all arms in **stowed** position, the packer fully to the **rear**, the hopper door fully **open**, and the tailgate **closed and locked**, to transfer the **maximum load from the front axle** when empty scale calibration readings are taken. Moving components or shifting them to a different location than

when weights were recorded will cause calibration to be incorrect.

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to next menu.
- 3. Select SYSTEM SETUP, leading to next menu.
- 4. Select CALIBRATION, leading to next menu.
- 5. Select MANUAL CALIBRATION, leading to next menu.
- 6. Select EMPTY WEIGHT, leading to next menu.









Air = Weigh

EMPTY WEIGHT

HEAVY WEIGHT

ESC (A) (V) (ENTER

- The screen pauses for three seconds with the display, "ENTER EMPTY VEHICLE MUST BE EMPTY" before proceeding automatically to the next menu.
- 8. On the PICK AXL menu, select one of the offered axle groups: STR (Steer) or DRV (Drive).

If PIN is needed for access, enter it at this time. (See Section IV.C for PIN setup instructions)

- Using the up/down arrows <▲▼>, scroll to the proper empty weight identified from a certified scale ticket, then depress <ENTER>. The screen will briefly show Accepted to indicate its acceptance of the Empty Weight.
- 10. Press <ESC> to return to the PICK AXL menu and choose another axle for entering its Empty Weight calibration.
- 11. Note that you must calibrate each axle group in order for the scale to be fully calibrated. Repeat the above steps for the Drive axle group.



II.D.2. Calibrating Heavy Weights

NOTE FOR REFUSE TRUCKS: All lift axles must be **raised**, all arms in the **down** position, and the packer fully **forward** to get the **maximum load on the front axle** when loaded scale calibration readings are taken.

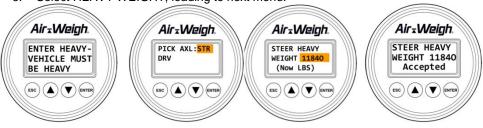
Air = Weigh

EMPTY WEIGHT HEAVY WEIGHT

ESC (A) (V) (ENTI

Moving components or shifting them to a different location than when weights were recorded in step 1 will cause calibration to be incorrect.

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- Select PRINT, SETUP, leading to next menu.
- 3. Select SYSTEM SETUP, leading to next menu.
- 4. Select CALIBRATION, leading to next menu.
- 5. Select MANUAL CALIBRATION, leading to next menu.
- 6. Select HEAVY WEIGHT, leading to next menu.



- The screen pauses for three seconds with the display, "ENTER HEAVY VEHICLE MUST BE HEAVY" before proceeding automatically to the next menu.
- On the PICK AXL menu, select one of the offered axle groups: STR (Steer) or DRV (Drive).

If PIN is needed for access, enter it at this time. (See Section IV.C for PIN setup instructions)

- Using the up/down arrows <▲▼>, scroll to the proper empty weight identified from a certified scale ticket, then depress <ENTER>. The screen will briefly show Accepted to indicate its acceptance of the Heavy Weight.
- 10. Press <ESC> to return to the PICK AXL menu and choose another axle for entering its Heavy Weight calibration.
- 11. Note that you must calibrate each axle group in order for the scale to be fully calibrated. Repeat the above steps for the Drive axle group.

II.E. Calibration by Direct Entry of RATIO and OFFSET

To use this method, you must first obtain the RATIO and OFFSET values from another LoadMaxx Truck Scale on a truck with <u>identical</u> suspension, which already has been correctly calibrated. Then you can directly enter these values into the Truck Scale you wish to calibrate.

For further details, refer to Product Application Note <u>Calibration by Direct</u> <u>Entry of RATIO and OFFSET Values</u>, Air-Weigh P/N 901-0115-000.

Note that you must calibrate each axle group in order for the scale to be fully calibrated. Repeat the above steps for the Drive axle group.

II.F. Adjusting the Calibration

After the initial calibration is complete and the truck has been operated in normal conditions, you may find that the weights are consistently off up to 1500 lbs GVW in the same direction. You can use the Adjust function to move the calibrated weights closer to those of a certified ground scale. You can use the Adjust function in any vehicle configuration (for instance, empty or loaded, brakes on or brakes released).

Note that you cannot Adjust GVW directly. If you can weigh the axle groups individually at a certified ground scale, you can Adjust each axle group by the amount of its individual consistent error. Otherwise, use the following worksheet to determine how to Adjust the Steer and Drive axle groups, based on the consistent GVW error.

Adjust value calculation:

Enter Amount GVW is consistently off:		
Enter Heavy Steer Calibration Value:		
Enter Heavy Drive Calibration Value:		
Determine Steer / Drive Ratio: (Note: This is the Steer Heavy Calibration Weight divided by the Drive Heavy Calibration Weight.)		
Steer Adjust Value = Steer / Drive Ratio × Amount GVW is consistently off:		
Drive Adjust Value = (1 - Steer / Drive Ratio) × Amount GVW is consistently off		

An example of the Adjust value is shown on the next page.

Amount GVW is consistently off:	1,500 pounds
Heavy Steer Calibration Value:	21,000 pounds
Heavy Drive Calibration Value:	45,000 pounds
Determine Steer / Drive Ratio:	21,000 ÷ 45,000 is 0.467
Steer Adjust Value (Calculated):	1,500 × 0.467 is 700 pounds
Drive Adjust Value (Calculated):	(1 - 0.467) = 0.533.
	$0.533 \times 1,500 = 800$ pounds

To use the Adjust function, follow these steps.









- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to next menu.
- 3. Select SYSTEM SETUP, leading to next menu.
- 4. Select CALIBRATION, leading to next menu.
- 5. Select ADJUST CALIBRATION, leading to next menu.
- The screen pauses for three seconds with the display, "ADJUST IF WT ALWAYS OFF BY SAME AMT," before proceeding automatically to the next menu.
- 7. On the PICK AXL menu, select one of the offered axle groups: STR (Steer) or DRV (Drive).

If PIN is needed for access, enter it at this time. (See Section IV.C for PIN setup instructions)

- 8. Use the up and down arrows to select the weight adjustment you want to make. Press ENTER once the weight is reached. The screen will display "Accepted" for 2 seconds, then it will return to the previous screen. The weight will show the adjustment and the adjustment itself will again show 0 (zero), as illustrated above.
- Press <ESC> to return to the PICK AXL menu and choose another axle for entering its Adjust.











III. OPERATION

Once calibrated, your Air-Weigh LoadMaxx Truck Scale is ready to display weights in 20lb (20kg) increments. Continued accuracy is established by following a few simple rules before taking weight readings:

- Gently roll to a stop on a flat level surface with wheels straight
- Don't use the brakes for the last few feet
- Leave the brakes released and wheels straight while weighing.
- For models with air suspensions:
 - Keep engine running
 - If possible, deflate the air suspension for 5 to 10 seconds, and then re-inflate to factory-specified ride height.



CAUTION! Please follow all company safety guidelines during weighing and calibration.

It may take a few loads to learn how to weigh accurately. With an Air-Weigh scales installed on the truck suspensions, your entire vehicle becomes the scale. When you want to weigh, remember that you need to weigh the vehicle the same way every time.

IV. FUNCTIONAL OPERATIONS

IV.A. Weight Displays

The Weight Displays show the weights for all axle groups, the GVW (Gross Vehicle Weight), and the NET (Net Vehicle Payload). You can reach the STEER / DRIVE Weight Display by depressing the <ESC> button repeatedly until it appears, or alternatively by selecting VIEW WEIGHTS on the Main Menu and depressing the <ENTER> button.

Use the up/down arrows < ▲ ▼> to scroll between the weight displays showing truck and GVW/NET weights.

On all Weight Displays, when a weight is changing, it flashes rapidly until it stabilizes.

On all Weight Displays, if a particular axle (or GVW or Net) is over the alarm or warning weight, causing an alarm, a bell icon flashes rapidly between the axle name (or GVW or Net) and its weight.







On all Weight Displays, pushing Enter stops the alarm unless PIN protection is active. See "Alarm Function," above, for full details.

If no alarm is active, you can zero the NET on the GVW screen by pressing <ENTER> twice while that screen is displayed. The first time. the Net Weight flashes slowly. The second time, it goes to zero. The amount of each addition to, or subtraction from, the GVW will then be added to or subtracted from the Net Weight, allowing you to see how much weight has been loaded or unloaded.

IV.B. How-To-Weigh instructions

How-To-Weigh instructions are displayed on the truck scale in rotation with the actual weight screen. To turn off these instructions permanently:









- 1. Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to the next menu.
- Select SYSTEM SETUP, leading to the next menu. 3.
- Select SYS CONFIG, leading to the next menu. 4.
- Select DISPLY SETUP, leading to the next menu. 5.
- 6. Select SHOW / HIDE, leading to the next menu.
- Select SHOW HELP, leading to the next menu. 7.
- 8. Select HIDE HELP to turn off the How-To-Weigh instructions. Press <ESC> repeatedly to return to the main menu.

Note: You can turn off the How-To-Weigh instructions temporarily, until the next time you turn the truck off and on, by pushing either of the up/down arrows <**▲ ▼**> when the instructions are visible







IV.C. Creating a PIN

Setting a PIN into the LoadMaxx Truck Scale will eliminate tampering with that scale's CALIBRATION, SCALE TYPE, and PIN settings. After calibration, fleets may wish to develop a fleet PIN policy to protect the calibration settings from tampering.

To set a PIN:

- 1. Select PRINT, SETUP, leading to the next menu.
- 2. Select SYSTEM SETUP, leading to the next menu.
- 3. Select SYS CONFIG, leading to the next menu.
- 4. Select SET PIN #, leading to the next menu.

If PIN is needed for access, enter it at this time.

 Using the up/down arrows <▲ ▼> scroll to the desired PIN, then depress <ENTER>. Press <ESC> repeatedly to return to main menu.

The new PIN is now entered into the scale. To change the PIN later, repeat these steps and change the setting. Setting the PIN to zero will reset the scale's PIN to its original status of No PIN Needed.

Note that once you gain PIN access by entering the PIN correctly, you will retain that access until the scale has a power cycle.

IV.D. Large Character Display

The Air-Weigh LoadMaxx Tractor Scale can display weights on either three lines, with twelve characters per line as shown here on the left, or with larger characters, on two lines, with eight characters per line, as shown here on the right.





Only the Weights Displays can appear as large characters on two lines. On this display, axle group names are represented by their first letters:

S = STEER D = DRIVE G = Gross Vehicle Weight (GVW)

N = Net Payload (NET)

T = TRAILER (if one semi trailer, or full trailer)

A = TRAILER A (if two trailers) B = TRAILER B (if two trailers)

F = FRONT TRAILER (full trailer) R = REAR TRAILER (full trailer)

,

All other screens always appear as three line displays.

To change between two line and three line displays:

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to the next menu.
- 3. Select SYSTEM SETUP, leading to the next menu.
- 4. Select SYS CONFIG, leading to the next menu.
- 5. Select DISPLY SETUP, leading to the next menu.
- 6. Select WEIGHT SETUP, leading to the next menu.
- Select 2 OR 3 LINES, leading to the next menu. At the bottom of the menu the current choice is shown as (Now 2 LINE) or (Now 3 LINE).

At this point you can choose between the two line display with larger characters, or the three line display.

 Press the <▲ ▼> buttons to select the desired display configuration, 2 LINE DISP or 3 LINE DISP, and press <ENTER>.

IV.E. Alarm Function

The Air-Weigh LoadMaxx Tractor Scale has two 12V-24V 1.0 amp output alarms, activated when an axle group weight, GVW or Net exceed a programmed amount. You can program each alarm to activate at 12/24V and deactivate at 0V, or to activate at 0V and deactivate at 12/24V. For more information, see Product Application Note Installing and Programming Overweight Alarms, P/N 901-0122-000.

To use the alarm feature, attach the gray or brown alarm output wire stemming from the Tractor ComLink harness to a user-supplied alarm. Wires are marked WARN 1 and WARN 2. Route the ground wire/s for the alarm/s to the WARN GROUND wire/s at the Tractor ComLink harness.

Alarms will activate when a programmed warning weight or alarm weight limit is reached. (Warning weight output is pulsing voltage, while alarm weight output is continuous voltage.) The limits activating this feature are set by the user. Note that you must turn the alarm feature ON for alarm functions to operate. See section IV.E.1.a, below, for details.

You can change the function of Alarm 2 from its default use as a second overweight alarm. Instead, you can use it to activate when the on-the-ground weight at the steer axle tires is less than 25% of the on-the-ground weight at the drive axle tires. For details, see Product Application Note LoadMaxx, Using Alarm 2 For Steer Axle Underweight, P/N 901-0109-000.

(This Product Application Note is oriented to straight trucks, not tractor-trailers, so instead of referring to the steer as 25% of the drives, it refers to the steer as 20% of the GVW. However, the function is the same.)

To deactivate and reset an active warning or alarm weight alarm, simply press the Enter button <ENTER> once while one of the weight displays for tractor, trailer or GVW/NET screen is displayed on the scale display screen. If the scale is not PIN-protected, this will stop power from flowing

to the alarm output wire. Once the displayed weight readings fall below the programmed alarm settings, the alarm function resets. The alarm feature is now ready for the next load.

Note that all alarm functions, except for the alarm diagnostic test, are PIN-protected. The alarm feature must be turned ON for this test to be used.

IV.E.1. Alarm Function Programming Procedure

IV.E.1.a. Turning the Alarm Feature On or Off

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select ALARMS, leading to the next menu.

If PIN is needed for access, enter it at this time.

(See Section IV.C for PIN setup instructions)

 The bottom line gives the state of the alarm feature, "(Now ON)" or "(Now OFF)." Select TURN ON/OFF to change this state to its opposite.

IV.E.1.b. Alarm Weights

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select ALARMS, leading to the next menu.

If PIN is needed for access, enter it at this time.

(See Section IV.C for PIN setup instructions)

- 3. Select SET ALARMS, leading to the next menu.
- 4. Select ALARM 1, leading to the next menu.
- Select one of GVW, NET ALM 1, TRCTR ALRMS1, or TRLER ALRMS1, leading to the next menu.
- 6. Depending on the previous step.
 - select from GVW ALARM and NET ALARM:
 - or from STEER ALARM and DRIVE ALARM;
 - or from TRLR WARN 1 and TRLR ALARM 1. (If there are multiple trailers, it will be necessary to select from TRAILER A, TRAILER B, TRAILER C, etc.)
- 7. Select WARN WT 1 or ALARM WT 1 for the chosen alarm.
- Using the up/down arrows < ▼> scroll to the desired warning or alarm weight, then depress <ENTER>.
- Press <ESC> as needed to start setting any additional desired alarms. Press <ESC> repeatedly to return to previous menu or the main menu. Repeat this procedure for ALARM 2 if used.

IV.F. Languages

The LoadMaxx offers a choice of language display:

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to the next menu.
- Select SYSTEM SETUP, leading to the next menu.
- 4. Select SYS CONFIG, leading to the next menu.
- 5. Select LANGUAGE, leading to the next menu.
 - a. For English or Spanish, press the < ▲ ▼> buttons to select the desired language, then depress <ENTER>.
 - b. For French or German:
 - i. Select OTHER OPTIONS, leading to the next menu.
 - ii. Press the <▲ ▼> buttons to select the desired language, then depress <ENTER>.

IV.G. Display Backlight and Set-Up

Like other gauges, the scale display is "key-on" powered, so it is always operating. Pressing any key will automatically turn on the display backlight. The display screen will automatically drop into its programmed "sleep mode" with the backlight turned off after one to 30-minutes from the last keystroke operation. The factory-set default time is 5 minutes.

To change the amount of time the display is lit:

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to the next menu.
- 3. Select SYSTEM SETUP, leading to the next menu.
- 4. Select SYS CONFIG, leading to the next menu.
- 5. Select DISPLY SETUP, leading to the next menu.
- 6. Select MORE OPTIONS, leading to the next menu.
- 7. Select BACKLIGHT, leading to the next menu.
- 8. Select MINUTES, leading to the next menu.
- Press the <▲ ▼> buttons to select the desired time period. Press ENTER.

This backlight will automatically dim to the "sleep mode" after the selected operation time period. To turn on the backlight, press any button.

You can also set the backlight's brightness to BRIGHT, suitable for daytime viewing, or DIM, suitable for night. Follow steps 1-7 immediately above, then

- 8. Select BRIGHTNESS, leading to the next menu.
- Press the <▲ ▼> buttons to select the desired brightness. Press ENTER.

V. QUICK REFERENCE MENU DIRECTORY

CALIBRATION REQUIRED	PRINT, SETUP
BEFORE USE	(shows only SETUP if data stream)
	PRINT MENU (if no data stream)
	PRINT REPORT
	DATE / TIME
<u>MENU OVERVIEW</u>	REPRT COPIES
	SYSTEM SETUP
WEIGHTS	CALIBRATION (Requires PIN#.
ALARMS	Each axle suspension must
PRINT, SETUP (shows only SETUP if	<i>be calibrated separately.)</i> ADJUST CALIB
data stream)	MANUAL CALIB
PRINT MENU (if no data stream)	EMPTY WEIGHT
SYSTEM SETUP	HEAVY WEIGHT
CALIBRATION SYS CONFIG	ENTER RATIO
SET PIN#	CALIB RATIO
DIAGNOSTICS	CALIB OFFSET SYS CONFIG
	DISPLAY SETUP
	WEIGHT SETUP
	LBS/KGS
	2 OR 3 LINES
<u>MENU DETAILS</u>	SHOW/HIDE
	SHOW GVW
WEIGHT	SHOW STEER SHOW HELP
Displays first 3 axle weights	MORE OPTIONS
(Next axle weights if any)	BACKLIGHT
<▼> for GVW/Net Payload	BRIGHTNESS
	MINUTES
ALARMS	FIRST DISPLY
SET ALARMS (Requires PIN#.)	SCALE TYPE (<i>Requires PIN#)</i> MODEL NUMBER
ALARM 1 (or ALARM 2 if not using	(Changes sensor
STR 20% GVW)	configuration.)
GVW, NET ALM1 (or ALM 2) GVW ALARM	DATA/REPORT
WARN WT 1 (or 2)	MORE OPTIONS
ALRM WT 1	CAN PROTOCOL
NET ALARM	INCLINOMETR
WARN WT 1	LANGUAGE ENGLISH
ALRM WT 1	SPANISH
ALARM LOGIC ACTIV 12/24V	OTHERS
ACTIVE LOW	FRENCH
TRCTR ALRMS1	GERMAN
STEER ALARM	SET PIN # DIAGNOSTICS
WARN WT 1	SYSTEM STATUS
ALRM WT 1 DRIVE ALARM	ALARMS
WARN WT 1	ALARM WEIGHTS
ALRM WT 1	TEST ALARM 1
STR 20% GVW	TEST ALARM 2
USE ALARM 2	COMLINKS
USE 20% ALRM	A/D READINGS CALIB DATA
TURN ON/OFF	USER DATA
	USER DATA <weights></weights>
	COMLINK ID

VI. MENU OPERATIONS AND DEFINITIONS

Press the <ESC> button one or more times to reach the Main Menu. Use the <▲> and <▼> buttons to scroll to new selections. Refer to the Quick Reference Menu Directory above for the entire menu structure.

WEIGHTS DISPLAYS

See Section IV.A.

MAIN MENU

Press <ESC> to enter the Main Menu from the Weights Display. From all other displays, press <ESC> one or more times to reach the Main Menu.

WEIGHTS

Press <ENTER> to observe the first weights screen, showing the STEER and DRIVE axle weights. Press the <▼> to scroll to GVW, and Net Payload weights.

ALARMS

See Section IV.E.

PRINT, SETUP MENU

PRINT MENU

Print a report or set the printer's date and time. See Product Application Note <u>Air-Weigh Date Time Printer Installation Instructions</u>, P/N 901-0105-000 (Rev 2), available at

http://www.air-weighscales.com/support/manuals.cfm, for details. In addition, select REPRT COPIES to set the number of report copies.

SYSTEM SETUP MENU

CALIBRATION

See Section II.

SYS CONFIG

See the SYS CONFIG MENU subsection, below.

SET PIN#

See Section IV.C.

SYS CONFIG MENU

DISPLY SETUP

See the DISPLY SETUP MENU subsection, below.

SCALE TYPE

See the SCALE TYPE MENU subsection, below.

DISPLY SETUP MENU

WEIGHT SETUP MENU

LBS / KGS

Changes the weight display and data entry modes to pounds or kilograms. Changing this selection will also automatically convert any calibration values previously entered to the new unit of measure.

2 OR 3 LINES

Causes the Weight Displays to appear in large or normal characters. See Section IV.D.

MORE OPTIONS

For models 5809, 5810, 5814, 5817, 5818, 5820, 5824 and 5829, allows access to FIRST DISPLY and BACKLIGHT. For some other models, only BACKLIGHT is shown.

WEIGHT SETUP MENU

LBS / KGS

Changes the weight display and data entry modes to pounds or kilograms. Changing this selection will also automatically convert any calibration values previously entered to the new unit of measure.

2 OR 3 LINES

Causes the Weight Displays to appear in large or normal characters. See Section IV.D.

FIRST DISPLY

For models 5809, 5810, 5814, 5817, 5818, 5820, 5824 and 5829, the user can select the weights display to appear immediately after power on: the STEER / DRIVE display or the GVW / NET display.

SCALE TYPE MENU

MODEL NUMBER

Used to change the LoadMaxx Truck Scale configuration; for instance, when adding an additional sensor at a later date. See the **MODEL NUMBER NOTE**, page 5, for the model numbers to which this manual applies. Note that otherwise identical configurations will have different model numbers depending on whether or not the sensor operates with air pressure. Consult Air-Weigh Customer Support before changing MODEL NUMBER.

DATA/REPORT

Changes the printer port configuration. WEIGHT TICKT configures the printer port to print Weight Ticket reports. DATA STREAM configures the port to output vehicle weights to another electronics device, approximately twice per second. Refer to Product Application Note <u>J1587 Weight Messages for Users</u>, P/N 901-0075-000, and consult Air-Weigh Support for more information on this subject.

When DATA STREAM is selected menu changes occur: In the first level menu screen, PRINT, SETUP will change to SETUP. The second level PRINT MENU screen is no longer an option choice.

MORE OPTIONS

Provides access to CAN bus options and inclinometer control.

CAN PROTOCOL

Used to change the databus protocol between J1939 (the default) and CANopen. Consult Air-Weigh Customer Support before changing CAN PROTOCOL. You must cycle power each time this selection is changed.

INCLINOMETR

Used to control an external inclinometer. Refer to Product Application Note <u>Air-Weigh LoadMaxx / Inclinometer Option</u>, P/N 901-0104-001, and consult Air-Weigh Support for more information on this subject.

SHOW / HIDE MENU

SHOW GVW

Causes the GVW / Net screen to be visible or not, depending on whether there is an Air-Weigh Trailer Scale present. SHOW GVW lets the GVW / Net screen be visible even without a trailer. HIDE GVW requires an Air-Weigh Trailer Scale or direct connect trailer suspension sensor to be present in order to access the GVW / Net screen.

SHOW STEER

SHOW STEER causes the Steer Axle to be visible on the first Weights Display. HIDE STEER removes the Steer Axle from the first Weights Display, and also prevents access to the GVW / Net screen. SHOW / HIDE STEER is changed automatically with some changes in the Scale Type (see under SYS CONFIG subsection, above). For example, a 5800 model number is identical with a 5803 model number, except that a 5800 has SHOW STEER and a 5803 defaults to HIDE STEER.

SHOW HELP

See the Section IV.B, How-To-Weigh Instructions, above.

DIAGNOSTICS MENU

SYSTM STATUS

Use this menu to obtain the Scale Display's system status, including weight units (Lbs or Kgs), error status, the Scale Display's software version numbers and its serial number, and inclinometer diagnostics. Use the up/down arrows <▲ ▼> to scroll between the three SYSTEM STATUS displays, which together show this information.

DIAGNOSTICS: ALARM WEIGHTS MENU

ALRM WEIGHTS

Shows the programmed warning and alarm weights for each axle group, GVW and Net. Values are shown on a different display for each axle group (or GVW or Net). Use the up/down arrows <▲ ▼> to scroll between the axle groups.

TEST ALARM

Causes selected Truck ComLink alarm to be actuated for three seconds if the alarm feature has been turned ON. See Section IV.G.

DIAGNOSTICS: COMLINKS MENU

A/D READINGS

Shows the sensor reading for each axle group in A/D (electronic) values, PSI and Bars. Values are shown on a different display for each axle group. Use the up/down arrows <▲ ▼> to scroll between the axle groups. A reading of 409 indicates a sensor fault, sensor cable unplugged, no sensor, etc. For model numbers with averaged dual sensor readings, 'A/D' will flash. By pressing the <ENTER> button, you will be able to view the individual AD readings.

CALIB DATA

Each axle group has values shown on three different displays. The first two are considered User Data, while the third is considered System Data. Use the up/down arrows <▲ ▼> to scroll between the different displays and axle groups.

The first display per axle group shows the Empty and Heavy A/D values at the time the user entered Empty and Heavy weights, respectively (unless calibration was performed by direct ratio and offset entry). The second display per axle group shows the Empty and Heavy Weights that the user entered (unless calibration was performed by direct ratio and offset entry).

The third display per axle group shows the Ratio and Offset that either the system calculated after the user entered Empty and Heavy weights, or the Ratio and Offset that the user entered.

COMLINK ID

Shows the software version numbers, model number, and serial number for each axle group with an Air-Weigh scale on the vehicle. Use the up/down arrows <▲ ▼> to scroll between the axle groups.

VII. SYSTEM TROUBLE SHOOTING

The Air-Weigh LoadMaxx Truck Scale system is extremely self-sufficient. To operate correctly, power and ground are the only truck electrical connections needed. Ensure all connectors (male/female) make a good connection and at least 9.5 volts is entering the system. When troubleshooting, initially check for power at the connecting plugs. If the system used to power up, but now doesn't, double-check the circuit being used to power it. If there is no power to the scale, use a voltmeter and test the power and ground circuits using a bracketing method to isolate where power is lost. Once the break in the power circuit is found, make the proper repairs.

All other faults can be identified internally through the DIAGNOSTICS display on the scale display.

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- Press the down arrow < ▼ > 2 times until PRINT, SETUP begins blinking, then depress <ENTER>.
- Press the down arrow <▼> 2 times until DIAGNOSTICS begins blinking, then depress <ENTER>.
- With the word STATUS flashing, press <ENTER> one more time. If NO ERRORS displays on the screen, the Weight Gauge is functioning normally.

Reference the chart below for all fault code problems and solutions.

Troubleshooting Chart		
Code	Problem Description	Solution
BAD EEPROM	EEPROM error	Memory failure. Send to Air-Weigh for repair.
NO TRACTOR	No communications with Truck ComLink	Will appear until ComLink is found. Ensure connections are correct.
NO TRAILER	No communications with Trailer Scale	(No problem; straight trucks have no trailer scale.)

VII.A. INCORRECT WEIGHT READINGS

If weights are always off by the same amount, see the subsection ADJUST WEIGHTS in the CALIBRATION section, above.

If weights are otherwise incorrect, including 0 (zero) or unstable, ensure that the sensor is connected to the Truck ComLink correctly. You may use the A/D readings to observe sensor faults.

- Press <ESC> one or more times until the Main Menu appears, with VIEW WEIGHTS blinking.
- 2. Select PRINT, SETUP, leading to the next menu.
- 3. Select DIAGNOSTICS, leading to the next menu.
- 4. Select COMLINKS, leading to the next menu.
- 5. Select A/D READINGS, leading to the STR A/D reading.
- Press the <▲ ▼> buttons to select the desired axle group A/D reading. A reading of 409 indicates a sensor fault, sensor cable unplugged or severed, no sensor, etc.

VII.B. SUSPENSION TROUBLESHOOTING

Your Air-Weigh Scale's accuracy is dependent on your suspensions being in good mechanical repair and in factory-specified adjustment.

Once the scale is installed and functioning properly, the degree of accuracy will be affected by the proper operation and setting of the suspension. Three major suspension factors affect the degree of accuracy and repeatability:

- 1. Proper setting of ride height.
- 2. Proper setting of a high quality height control valve (HCV).
- 3. Proper adjustment of the HCV linkage.

Follow these guidelines to ensure your scale is as accurate and repeatable as possible.

VII.B.1. Ride Height

Symptoms: Scale readout accuracy varies from certified weight, by varying amounts.

Solution: Proper ride height is the most important factor in ensuring accuracy. Ride height is normally defined as the vertical distance from the center of the axle to the bottom of the frame rail. This varies by vehicle and suspension make, so check the proper manual. Most heights are specified +/- 1/8", so the proper setting is critical.

VII.B.2. Linkage

Symptoms: Scale accuracy varies from a certified weight, usually consistently lower.

Solution: Play in the linkage or bushings will detract from scale accuracy since the proper ride height is not always maintained.

VII.B.3. Height Control Valve

Symptoms: Scale readout is higher or lower than a certified weight, but consistently by the same amount.

Solution: Ensure your HCV has minimum dead-band. This is the play in the valve where the ride height changes without actuating the valve. Quality HCVs that demonstrate less than three degrees of total deadband provide most accurate weight readings. Replace defective valve with either Hadley or Barksdale valves.

VIII. MAINTENANCE

Scale Display: The Air-Weigh electronic scale display should be maintenance-free under normal operation. Keep the scale in a protected environment and treat as any electronic component.

Gently use a clean, soft cloth, slightly damp with water, to wipe away dust from the display.

ComLink: The Air-Weigh ComLink should be maintenance-free under normal operation. Ensure the ComLink is mounted properly and keep the holes free of obstruction.

Connections: Periodically spray the 7-pin J-560 sockets and plugs with electrical cleaner. A good electrical connection is vital for proper operation. Make every effort to keep moisture out of the disconnect socket while the system is in operation.

IX. CUSTOMER SUPPORT

If you cannot correct a problem, or you suspect you have a malfunctioning part, please contact Air-Weigh Customer Support at (888) 459-3247, Monday through Friday, 7 AM–5 PM Pacific Time.

From outside the US and Canada, please call (541) 343-7884.

X. Index of Application Notes

The following Application Notes are available from Air-Weigh Customer Support for additional information on these subjects:

- 901-0069-000 Dropping and hooking a 5802 Trailer Scale on a Trailer-Direct system
- 901-0070-000 Dropping and hooking a 5802 Trailer Scale on a Two Trailer Direct system
- 901-0071-000 Collecting and Entering Calibration
- 901-0072-000 5802 Trailer Scale, Load Distribution and Spread Tandem Axle Air Suspensions
- 901-0073-000 5800, Calculating Axle Weights on a Platform Scale
- 901-0074-000 050-5780-000 Truck Scale Display, Output Data Stream on RS232 Port
- 901-0075-000 J1587 Weight Messages for Users
- 901-0076-000 Heavy Haul Trailers with Flip Axles/Stingers/Booster Add-ons
- 901-0077-000 Operating Voltages and Current for 5800 Series Products
- 901-0079-000 Best practices for weighing on Volvo Trucks
- 901-0082-000 Power for 5802 on Transcraft trailers
- 901-0084-000 5801Truck Scale ComLink, Output Data Stream on RS232 Port
- 901-0085-000 Obtaining good tractor / trailer scale communications
- 901-0095-000 LoadMaxx J1939 Message Protocol Interface Specification
- 901-0104-000 Air-Weigh LoadMaxx / Inclinometer Option (Americas / Australia)
- 901-0104-001 Air-Weigh LoadMaxx / Inclinometer Option (Europe / Africa)
- 901-0105-000 Air-Weigh Date Time Printer Installation Instructions
- 901-0107-000 Application Note, CANopen Broadcast, LoadMaxx
- 901-0109-000 Application Note, LoadMaxx, Using Alarm 2 For Steer Axle Underweight
- 901-0112-000 Application Note, LoadMaxx, Drive 1 and Drive 2 in Models 5822-23, 5826-27
- 901-0115-000 Calibration by Direct Entry of RATIO and OFFSET Values
- 901-0117-000 Calibrating the Lift Axle
- 901-0122-000 Installing And Programming Overweight Alarms



XI. Limited Warranty

For product failures due to material or manufacturing defects, Air-Weigh will replace or repair all air suspension components for up to 3 years from shipment date to the end-user Air-Weigh customer. These three-year components include: Displays, ComLinks, Air Sensors, Power Cables, Air Sensor Assemblies, Air Sensor Harnesses, and all other associated external components. Air-Weigh assumes no responsibility for administering warranty claims directly with any third party end users. The responsibility of Air-Weigh under this warranty is limited to the repair, replacement, or credit of the defective part or assembly.

This warranty does not cover incidental or consequential damage to persons or property caused by use, abuse, misuse, or failure to comply with installation or operating instructions. This limited warranty does not apply to any product that has failed due to accident, abuse, alteration, installation not consistent with printed installation instructions, improper maintenance, improper operation, or as a result of system integration or installation not explicitly approved in writing by Air-Weigh.

Air-Weigh and its resellers shall have no responsibility or liability for damages if the purchaser or any other person alters the vehicle incorporating Air-Weigh products. This limited warranty shall not apply to any product that has been repaired or altered by anyone not employed by Air-Weigh or not operated in accordance with the manufacturer's printed material delivered with this product.

Air-Weigh hereby expressly disclaims any and all implied warranties of any type, kind of nature whatsoever, particularly any implied warranty of merchantability or fitness for a particular purpose not expressly stated by Air-Weigh in its printed material delivered with its products.

Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in the terms and conditions of this Warranty may not apply. This warranty gives you specific legal rights and you may also have other rights, which vary state to state.

May be covered by U.S. Patent Nos. 4832141, 5478974, 5780782, 7478001, Foreign Patent Nos. 623635, 1305191, 260494, 677998, 2122766, 625697

Copyright © 2004, 2006, 2007, 2010 by Hi-Tech Transport Electronics, Inc. All rights reserved. Air-Weigh®, ComLink™ and Hi-Tech Transport Electronics are trademarks or registered trademarks of Hi-Tech Transport Electronics, Incorporated. Other brand, product, or service names listed in this document are the trademarks or registered trademarks of their respective holders. Information contained in this literature was accurate at time of publication. Product changes may have been made after copyright dates that are not reflected.

XI.A. Procedure for Warranty Claims

- For a warranty claim of an Air-Weigh product, customers should get the part number, serial number, and failure description of the failed item and call Air-Weigh Customer Support. Air-Weigh will replace or repair units that have failed due to workmanship, at the discretion of Air-Weigh. In the event that Air-Weigh requests to examine product prior to disposition, or for repairs or replacements, Air-Weigh requires a Return Material Authorization (RMA) number to be issued before the item is returned. Customers should contact Air-Weigh's Customer Support Department at (888) 459-3247 for an RMA number. Please reference this RMA number in all correspondence.
- 2. Claimed items shall be shipped freight pre-paid to: Air-Weigh, Customer Support Department, 1730 Willow Creek Circle, Eugene, Oregon 97402. USA. The Air-Weigh RMA number shall appear on the outside of the return packaging.
- 3. Air-Weigh shall examine returned material within 30 days after receipt, or sooner if mutually agreed upon. If Air-Weigh determines that the part or assembly was defective in material or workmanship and within the warranty period, Air-Weigh will repair or replace the part or assembly and return freight pre-paid. In the event Air-Weigh determines that the part or assembly cannot be repaired or replaced and is within the warranty period, a credit not to exceed the purchase price will be issued to the Air-Weigh customer.
- 4. Air-Weigh Accounting will process a credit memo and notify the Air-Weigh customer by email or fax. The Air-Weigh customer will process a corresponding debit memo and notify Air-Weigh Accounting.
- 5. If the part or assembly received by Air-Weigh does not meet the requirements of the warranty program set forth above, at the Air-Weigh customer's request the part or assembly will either be discarded. returned freight collect, or repaired or replaced at the Air-Weigh customer's expense and returned freight collect.



1730 Willow Creek Circle • Eugene, Oregon 97402-9152 USA P.O.Box 24308 • Eugene, Oregon 97402-0437 USA

Telephone (541) 343-7884 • Order Desk (888) 459-3444 Customer Support (888) 459-3247 • FAX (541) 431-3121 Hours of Operation: Mon-Fri, 7am - 5pm, Pacific Time www.Air-Weigh.com

Installation data

See Diagnostics Menu sections, page 23, to find the following.

Scale Display serial number DIAGNOSTICS / SYSTM STATUS /▼	
Scale Display software version DIAGNOSTICS / SYSTM STATUS /▼	
LoadMaxx model number DIAGNOSTICS / COMLINKS / ID	
LoadMaxx serial number DIAGNOSTICS / COMLINKS / ID	
LoadMaxx software version DIAGNOSTICS / COMLINKS / ID	
Steer axle calibration empty A/D DIAGNOSTICS / COMLINKS / CALIB	
Steer axle calibration heavy A/D DIAGNOSTICS / COMLINKS / CALIB	
Steer axle calibration empty weight DIAG / COMLINKS / CALIB /▼	
Steer axle calibration heavy weight DIAG / COMLINKS / CALIB /▼	
Steer axle calibration ratio DIAG / COMLINKS / CALIB /▼▼	
Steer axle calibration offset DIAG / COMLINKS / CALIB /▼▼	
Drive axle calibration empty A/D DIAG / COMLINKS / CAL /▼▼▼	
Drive axle calibration heavy A/D DIAG / COMLINKS / CAL /▼▼	
Drive axle calibration empty weight DIAG / COMLINKS / CAL / ▼ ▼ ▼	
Drive axle calibration heavy weight DIAG / COMLINKS / CAL / ▼ ▼ ▼	
Drive axle calibration ratio DIAG / COMLINKS / CAL /▼▼▼ ▼▼	
Drive axle calibration offset DIAG / COMLINKS / CAL /▼▼▼▼▼	

Steer axle warning 1 weight DIAGNOSTICS / ALARMS / WEIGHTS	
Steer axle alarm 1 weight DIAGNOSTICS / ALARMS / WEIGHTS	
Drive axle warning 1 weight DIAG / ALARMS / WEIGHTS /▼	
Drive axle alarm 1 weight DIAG / ALARMS / WEIGHTS /▼	
GVW warning 1 weight DIAG / ALARMS / WEIGHTS /▼▼	
GVW alarm 1 weight DIAG / ALARMS / WEIGHTS /▼▼	
Net warning 1 weight DIAG / ALARMS / WTS /▼▼ ▼	
Net alarm 1 weight DIAG / ALARMS / WTS /▼▼ ▼	
Steer axle warning 2 weight DIAG / ALARMS / WTS / ▼ ▼ ▼	
Steer axle alarm 2 weight DIAG / ALARMS / WTS /▼▼ ▼ ▼	
Drive axle warning 2 weight DIAG / ALARMS / WTS /▼▼▼ ▼ ▼ ▼	
Drive axle alarm 2 weight DIAG / ALARMS / WTS /▼▼▼ ▼ ▼ ▼	
GVW alarm 2 weight DIAG / A'S / WTS /▼▼▼ ▼▼▼ ▼	
GVW warning 2 weight DIAG / A'S / WTS /▼▼▼▼▼▼▼	
Net alarm 2 weight DIAG / A'S / WTS /▼▼▼ ▼▼▼ ▼ ▼	
Net warning 2 weight DIAG / A'S / WTS /▼▼▼▼▼▼▼▼	

Notes

Notes

Notes



1730 Willow Creek Circle • Eugene, Oregon 97402-9152 USA P.O.Box 24308 • Eugene, Oregon 97402-0437 USA Telephone (541) 343-7884 • Order Desk (888) 459-3444 Customer Support (888) 459-3247 • FAX (541) 431-3121 Hours of Operation: Mon-Fri, 7am - 5pm, Pacific Time

www.Air-Weigh.com