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OVERVIEW

The **9100QC** is a highly versatile digital meter that enhances larger weighing systems made up of load cells, cables, and transmitters. The meter can be used with on-board weighing systems mounted onto heavy vehicles or with stationary loading devices, such as tanks or wood-chip bays.

Key benefits of the **9100QC** include:

- Both four-channel and three-channel programs for monitoring gross weight.
- Greater reliability because the two-wire construction reduces the chance of interference with signal transmission.
- An easy-to-read, extremely bright display panel.
- Versatile programs that allow the meter to be used in trucks that must meet a variety of industrial requirements.
- A post-calibration feature that makes it easy to calibrate the system (meter) without having a full load on the vehicle.
- The capability to use a variety of add-ons, including printers, scoreboards, and RF remotes.
- An internal clock and calibration system.
- The ability to measure weights in pounds or kilograms, and in increments of 20, 50, and 100.

- A program that is easily started from the control panel and includes software that can test the working order of the complete weighing system.
- Fully self-diagnostic.

SELECTING THE DESIRED PROGRAM

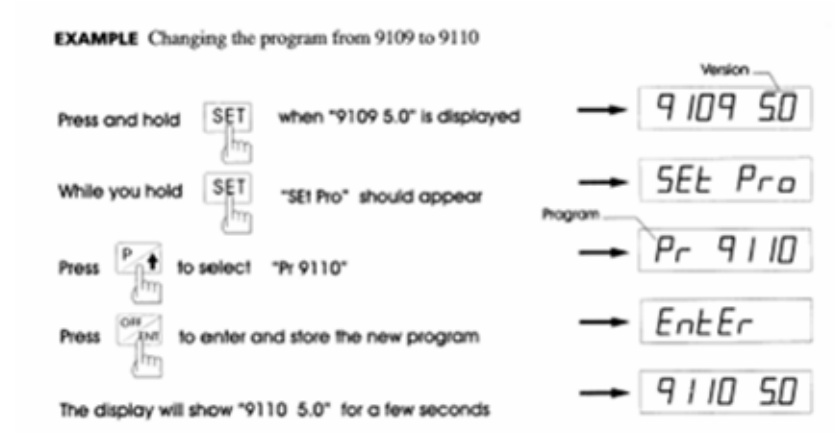
Program Selections and Uses for SI-9100QC.

- 9109** Three-channel operations for gross weight monitoring.
- 9110** Four-channel operations for gross weight monitoring.
(Unit arrives preset in this program.)

Program Selection Instructions

Power up the **9100QC** using the switch on the back of the meter. The display shows the program that was used most recently. If it is not the program you want, follow these instructions:

- Step 1:** The current program number and software version number show on the display. Press and hold the **<SET>** key.
- Step 2:** Release the **<SET>** key when “**SEt Pro**” appears in the display.
- Step 3:** Press the **<↑>** key to select the desired program **9109** or **9110**.
- Step 4:** When the desired program is displayed, release **<↑>** and press **<OFF/ENT>** to enter and store the new program.



SETTING UP THE METER

The **9100QC** has three setup menus, each with various options.

A major benefit of the **9100QC** meter is that setup changes can be made quickly and easily whenever the original choices need to be modified. This is helpful when certain setups do not provide as much information as others or you need to modify your initial settings. In either case you can make changes while using the weighing system.

To Enter a Setup Menu

To enter **Setup 1**, press the **<SET>** key once.

To enter **Setup 2**, press and hold the **<SET>** key until **"Setup 2"** appears on the display.

To enter **Setup 3**, press and hold the **<SET>** until **"Setup 3"** appears on the display.

The display will continuously cycle through “**Setup 1,**” “**Setup 2,**” “**Setup 3,**” and “**Set Off**” until the <SET> key is released at the desired setup program.

When the correct setup menu appears in the display, press the <↑> key to move through the various setup options. To return to a previous collection of setup options, press the <↓> key.

NOTE: “Set Off” is for use with the locking feature, as explained on page 27.

The setup programs will lock if the display is stopped at “**Set Off**” and the <OFF/ENT> is pressed. To move out of the “**Set Off**” display, press the <SET> key again to return to “**Setup 1**” or press the <CYC/CAN> key to leave the Setup Mode.

See Appendix D for the options available from each setup menu.

CALIBRATING THE METER

Specifying Pounds, Kilograms and Grads

After powering up the meter, it's important to note whether **LBS** (pounds) or **KGS** (kilograms) is displayed. Moreover, the **9109** and **9110** programs can weigh loads in one of three graduated increment settings (grads), which must also be set. These increments are 20, 50 and 100.

It's necessary to set both the correct unit of measurement and the desired grad *before* calibrating the meter.

To Set the Unit of Measurement and Grad

Press the <SET> key to select “Setup 2.”

Press the <↑> key to select **LBS**, **KGS**, **Grad 20**, **Grad 50** or **Grad 100**.

When the desired weight (in the desired increments) is displayed, press the <OFF/ENT> key to enter and store the selected value.

EXAMPLE Changing pounds to kilograms in 50 graduated increments before beginning calibration.



NOTE: For the scales to work properly, the meter must be fully calibrated using the tare weight and full weight calibration procedures described on pages 9-12.

Calibrating the tare weight

The tare weight refers to the weight of the vehicle when it's empty. Therefore, the truck must be completely empty before beginning this procedure.

Weigh the empty truck or trailer on a certified platform scale. Not all platform scales read the same, so using the same scales whenever possible will enhance accuracy.

Be sure the weight includes a full load of fuel.

Record the axle weights:

Ch. 1 tare (front axle) _____

Ch. 2 tare (rear axle) _____

Ch. 3 tare (rear axle) _____

Ch. 4 tare (rear axle) _____

To calibrate tare weight

Press the **<SET>** key to select "**Setup 1.**"

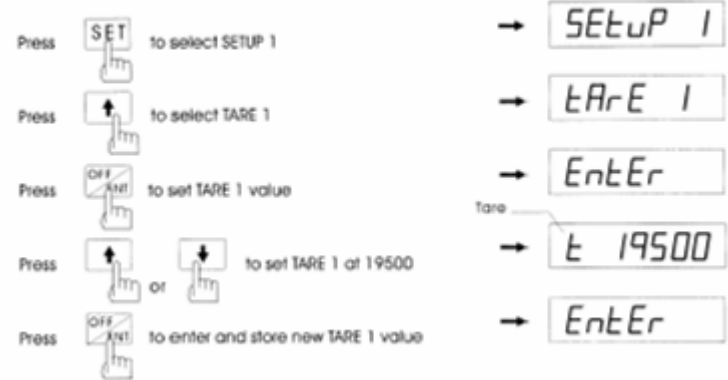
Press the **<↑>** key until "**Tare 1,**" "**Tare 2,**" "**Tare 3,**" or "**Tare 4**" is displayed.

Press the **<OFF/ENT>** key. The display will show a letter "**t**" at the left, followed by a series of numbers.

Press the **<OFF/ENT>** key to enter and store new tare values.

IMPORTANT NOTE: See “Resetting the “TARE WEIGHT” on page 31 on how to reset the tare weight without getting into “SETUP 1” (to be used after complete calibration.)

EXAMPLE Calibrating the tare weight at 19,500 for channel 1.



Calibrating the Full Weight with a Load

To calibrate the full weight, the truck or trailer needs to be loaded to capacity. Return to the same scale used to calibrate the tare weight. Note the axle weights for both the truck and trailer.

NOTE: For drivers operating in the NET mode, the tare weight equals 000000, and it's important that the full weight entered is the same as the net payload weight.

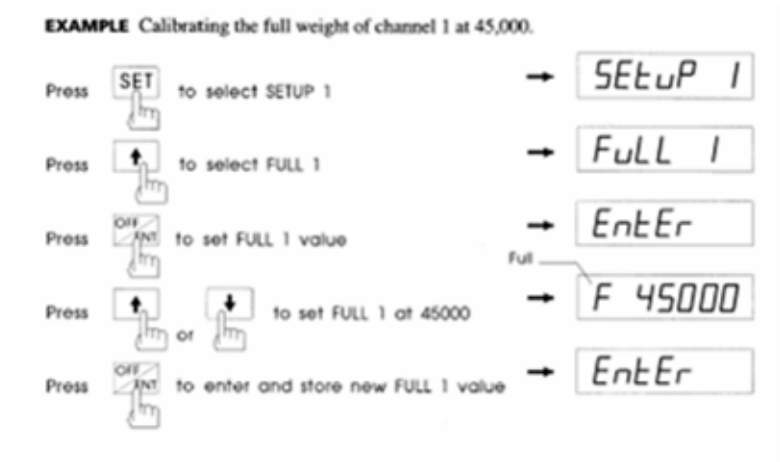
To Calibrate Full Weight with a Load

Press **<SET>** to select “Setup 1.”

Press **<↑>** until “Full 1,” “Full 2,” “Full 3,” or “Full 4” is displayed.

Press **<OFF/ENT>**. The display will show a letter “F” at the left, followed by a series of numbers.

Press **<↑>** or **<↓>** to match the number on the display with the truck or trailer’s full weight. Press **<OFF/ENT>** to enter and calibrate the full weight.



Calibrating Full Weight Without a Load (post-calibration)

Another way to calibrate the full weight is to use the post-calibration, or lock setup, feature.

This method is useful for operations that involve several trucks because it allows the calibration to be centrally controlled. The driver never needs to enter the setup programs, even for calibration.

After calibrating the tare weight, record two numbers:

- **The displayed weight** (what the meter displayed when the vehicle was fully loaded.)

- **The actual weight** (what the certified platform displayed when the vehicle was fully loaded.)

Once the truck or trailer is loaded and weighed, the driver only needs to give the operations manager the numbers. Then the meter can be calibrated whether or not a load is still on the truck.

To Post-Calibrate a Load

Press **<SET>** to select “**Setup 1.**”

Press **<↑>** until “**PCAL-1,**” “**PCAL-2,**” “**PCAL-3**” or “**PCAL-4**” is displayed.

Press **<OFF/ENT>**. The display will show a letter “**d**” at the left, followed by a series of numbers.

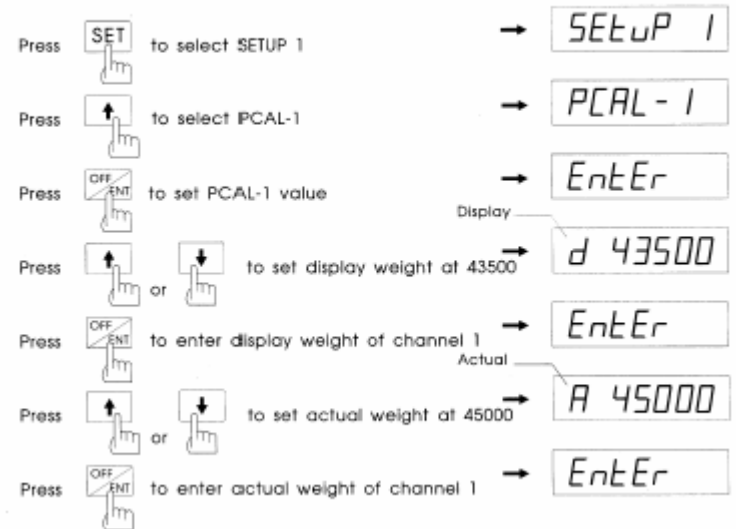
Press **<↑ >** or **<↓ >** to set the numbers to the **displayed weight.**

Press **<OFF/ENT>** to enter the displayed weight. The display will show a letter “**A**” at the left, followed by a series of numbers.

Press **<↑ >** or **<↓ >** to set the numbers to the **actual weight** from the certified scale.

Press **<OFF/ENT>** to enter the actual weight.

EXAMPLE Post-calibrating the full weight of channel 1 when the display weight is 43,500 and the actual weight is 45,000.



RECORDING CALIBRATION NUMBERS

Reading and recording the calibration numbers, or “cal numbers,” for each channel will save the time and expense of recalibration if the meter is replaced or if the numbers need to be available in an emergency.

The same calibration numbers can be used on the new meter as long as the same load cells or transducers and transmitters remain in place.

To Read Cal Numbers from the Current Meter

Press **<SET>** to select “**Setup 1.**”

Press **<↑>** until “**CAL 1,**” “**CAL 2,**” “**CAL 3,**” or “**CAL 4,**” is displayed.

Press **<OFF/ENT>**. The display will show a letter “**C**” at the left, followed by the cal number. Write it in the appropriate space below:

Cal number for channel 1 _____

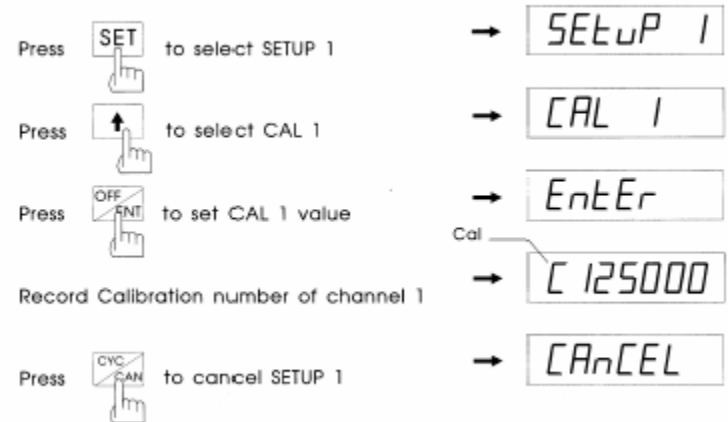
Cal number for channel 2 _____

Cal number for channel 3 _____

Cal number for channel 4 _____

Pres the <CYC/CAN> key to cancel SETUP 1 and return to the Normal Display Mode.

EXAMPLE Recording the cal number of channel 1.



NOTE: When reading the cal numbers, be sure not to touch the **<↑>** or **<↓>** key, or the entire system may have to be recalibrated.

To Enter Cal Numbers on a New Meter

Press <SET> to select “Setup 1.”

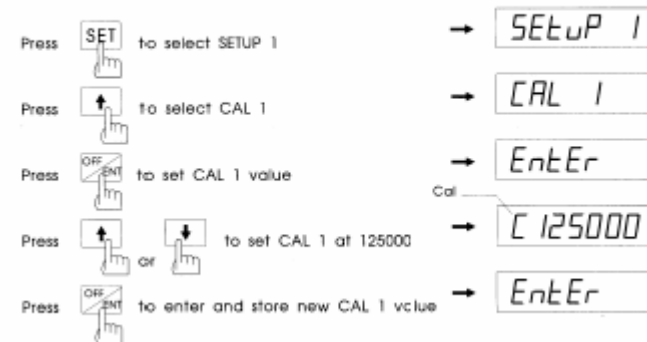
Press <↑> until “CAL 1,” “CAL 2,” “CAL 3,” or “CAL 4,” is displayed.

Press <OFF/ENT>. The display will show a letter “C” at the left, followed by a series of numbers.

Press <↑> or <↓> to set the cal number written on page 15.

Press <OFF/ENT> to enter and store the new cal number.

EXAMPLE Setting the cal number of channel 1 to 125,000.



SETTING LOAD LIMITS (SET POINTS)

To create a visible reminder of load limits, establish a separate limit for each channel.

For example, if a truck needs to be emptied when the net payload reaches 40,000 pounds, set limit 1 at or just under 40,000. When the limit is reached, the

display will alternate between showing the weight and showing the message “L1 CH-1,” “L1 CH-2,” “L1 CH-3,” or “L1 CH-4,” depending on the limits entered into the meter.

To establish an audible alarm, set limits and connect an optional external alarm or relay board. The alarm will be triggered when the limit is reached.

To Set Load Limits

Press **<SET>** to select “**Setup 1.**”

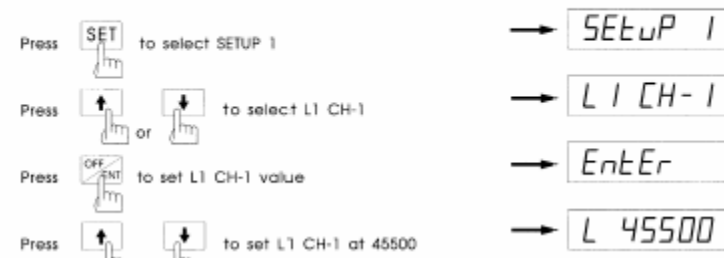
Press **<↑>** to select **L1 CH-1**, **L1 CH-2**, **L1 CH-3**, or **L1 CH-4**.

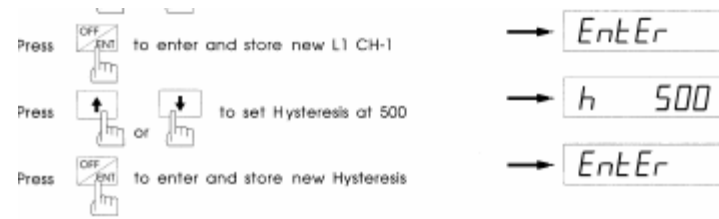
Press **<OFF/ENT>**. The display will show a letter “**L**” followed by the current limit.

Press **<↑>** or **<↓>** to select the desired limit.

Press **<OFF/ENT>** to enter and store a new limit. The display will show a letter “**h**” at the left, followed by a series of numbers.

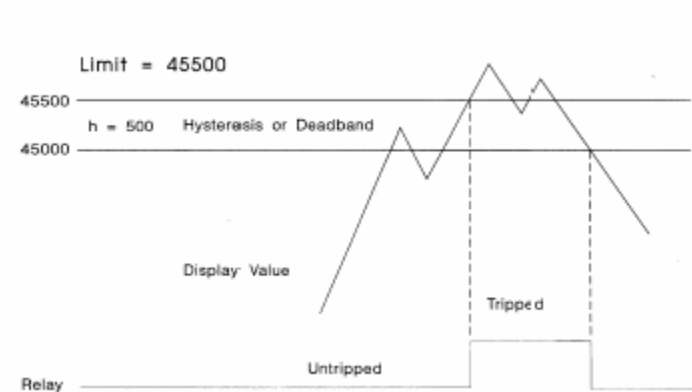
EXAMPLE Setting the limit 1 of channel 1 to 45,500 and the hysteresis (or deadband) to 500.





A relay trip on a rising input signal is specified by the limit parameters **L1 CH-1**, **L1 CH-2**, **L1 Ch-3**, or **L1 CH-4**.

The following figure illustrates a typical relay operation. A relay trips when the display is equal to or greater than the limit. The relay will be untripped if the display drops to a value that is less than the limit minus the **hysteresis (deadband)** value (**h**).



A typical relay limit operation

SETTING THE TIME, DATE AND YEAR

The time, date and year settings are all contained in the Setup 3 menu. These settings are useful to any driver using a printer or computer with the **9100QC** meter.

To Set the Time of Day

Press **<SET>** until “**Setup 3**” is displayed.

Press **<↑>** once. The word “**time**” will display.

Press **<OFF/ENT>**. The display will show the letter “**H**” at the left.

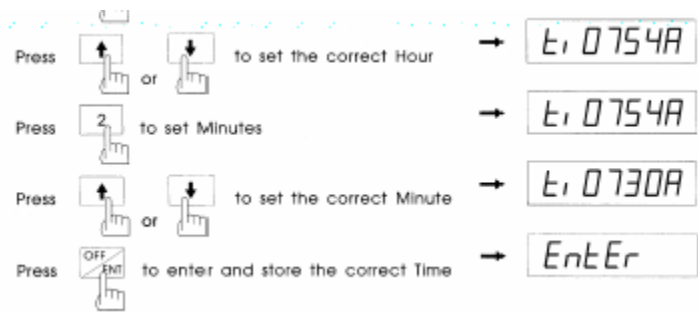
To set the hour, press the **<1>** key, then use **<↑>** or **<↓>** to enter the correct time. Be sure the **A** (for a.m.) or **P** (for p.m.) is correct at the right of the display.

To set the minutes, press the **<2>** key, then use **<↑>** or **<↓>** to enter the correct time.

Press **<OFF/ENT>** to enter and store the correct time.

EXAMPLE Changing the time of day from 06:54 p.m. to 07:30 a.m.





To Set the Date

Press <SET> until “Setup 3” is displayed.

Press <↑> until word “date” is displayed.

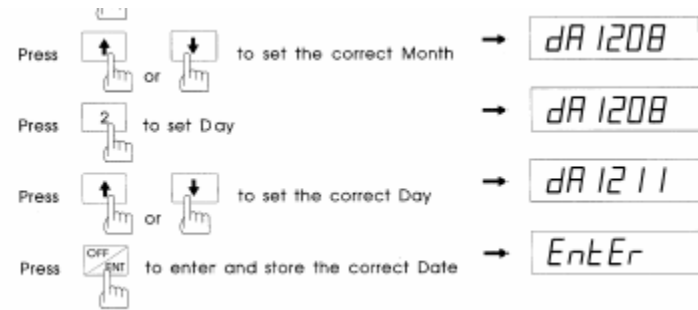
Press <OFF/ENT>. The display will show the letters “dA” at the left.

To set the month, press <1>, and use the <↑> or <↓> key.

Press <OFF/ENT> to enter and store the correct date.

EXAMPLE Changing the date from September 08 to December 11.





To Set the Year

Press <SET> until “Setup 3” is displayed.

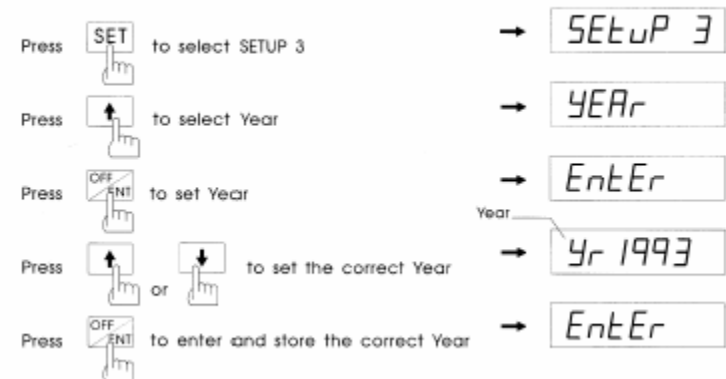
Press <↑> until word “year” is displayed.

Press <OFF/ENT>. The display will show the letters “Yr” at the left.

Press <↑> or <↓> to set the correct year.

Press <OFF/ENT> to enter and store the correct year.

EXAMPLE Setting year for 1993.



LOCKING THE SETUP

The **9100QC** meter includes a feature that allows the setup to be locked once all three setup programs are in place and the calibration is complete. The setup can be locked with or without the addition of an ID number or password. The use of a password prevents tampering with the meter which may change the setup.

Note: When locked, the setup feature still functions in the Operate Mode. However, when the **<SET>** key is locked so that no one can make changes in the setup, an “**Err 1**” will briefly appear on the display if the **<SET>** key is pressed.

To Lock the Setup

Press **<SET>** until “**SEt OFF**” appears in the display.

Release **<SET>** and press **<OFF/ENT>** to lock the SETUP Mode. The display will flash “**SEt OFF**” three times.

The meter will now function normally for anyone reading weights and switching channels, but no one can affect the setup or calibration without first unlocking the meter.

EXAMPLE Locking the setup.



The meter should return to the Normal Display Mode.

SETTING THE ID NUMBER

Setting a new ID Number (Password)

NOTE: New meters are shipped from the factory with the ID number preset at “n000000”.

To change the ID (Password) number to your own personal number, first turn the meter power off, then back on (with the power switch on the back of the meter). When the display shows either “r32” or “r8” (RAM SIZE), press the <TOTAL> and <SET> keys together and hold until “Ent. id” is displayed. “Ent. id” will display for 2 seconds and then be followed by “n000000”.

Press <OFF/ENT>. The display will indicate “Set id” for 2 seconds and then be followed by “n000000”. To set your ID number, select the digit you want to change by pressing the <↓> key, and the selected digit will flash. Adjust the value of the selected digit by pressing the <↑> (each digit ranges from 0 to 9). When the complete ID number is displayed, press the <OFF/ENT> key to store it.

Changing the Existing ID Number (Password)

***** IMPORTANT: Record the new ID number (password) in a safe location after setting it.*****

Turn the power off, then back on (with the power switch at the back of the meter). When the display shows either “r32” or “r8” (RAM SIZE), press the

<TOTAL> and <SET> keys together and hold until “Ent. id” is displayed. “Ent. id” will display for 2 seconds and then be followed by “n000000”.

Enter the old ID number by selecting the digit you want to change by pressing the <↓> key, and the selected digit will flash. Adjust the value of the selected digit(s) by pressing the <↑> (each digit ranges from 0 to 9). When the complete ID number is displayed, press the <OFF/ENT> key.

If the entered ID number matches with the stored ID number, the display will show “Set id” for two seconds, followed by “nXXXXXX” (previously entered ID number). To set a new ID number, select the digit(s) you want to change by pressing the <↓>, and the selected digit will flash. Adjust the value of the selected digit by pressing the <↑>. When the complete ID number you desire is displayed, press the <OFF/ENT> key to store it.

NOTE: When the entered ID (password) number does not match the last entered number, the display shows **Err 7** for 2 seconds, then goes back to normal mode.

UNLOCKING THE SETUP

To unlock the setup

Make sure the meter is on.

Press the <OFF/ENT> key to turn the meter off.

Press the <OFF/ENT> key again and then quickly press the <SET> key when the meter shows

“9100x.x.” At this point one of the two messages will be displayed on the meter. If the ID was not previously changed from the factory default of **n000000**, the meter will show **“Set On”**. If the ID was changed, the display will show **“Ent. id”** for two seconds followed by **n000000**.

If the meter shows **n000000**, the display will need to be changed to show the password ID before setup mode can be entered. To change the ID number, select the digit you want to change by pressing the **<↓>** key, until the desired digit flashes. Adjust the value of the selected digit by pressing the **<↑>** key. When the correct password ID number is displayed, press the **<OFF/ENT>** key to unlock the meter. The meter will now display **“Set On”**.

If the ID number you entered on the meter does not match the stored ID number, the meter will **show “Err 7”** for two seconds and then return to normal mode.

Default ID = n000000

RESETTING THE TARE WEIGHT

This procedure allows the resetting of the TARE WEIGHT without getting into SETUP 1.

NOTE: Make sure the truck or trailer is completely empty.



To Reset the Tare Weight in Channel 1 & 2

Push and hold the <1&2 TOT> key until the display shows “TARE 12,” and then release the key. The proper tare will appear as long as the original display number is less than 2,000 from original tare.



To Reset the Tare Weight in Channel 3 & 4

Push and hold the <3&4 TOT> key until the display shows “TARE 34,” and then release the key. As above, the proper tare will appear as long as the original display number is less than 2,000 from original tare.

USING HAND-HELD REMOTES

To turn on the Hand-Held Remote Mode, press and hold the <↓> key until “HHr On” is displayed. To turn the mode off, press and hold the <↓> key until “HHr OFF” is displayed.

NOTE: If a printer is connected, and the Hand-Held Remote Mode is turned on, the resulting output to the RS-232 port may interfere with normal print functions. Turn off the Hand-Held Remote Mode before printing.

PRINTING LOAD/WEIGHT INFORMATION

An external printer is required for printing information from the **9100QC** meter.

Printing the Current Weight

To print the current weight from the Full Vehicle Weight Mode, press the <↑> key and release it when the display reads “Print.”

Gross Weight

CH 1: 10000 lb.

CH 2: 5000 lb.

CH 3: 6000 lb.

CH 4: 7000 lb.

TOT: 28000 lb.

Date: 06/14/94 05:57 pm

Sample printout of gross weight.

PERFORMING TESTS ON ANY CHANNEL

How to get in and out of test mode

Test channel 1 by holding down the <1> key and then pressing the <OFF/ENT>. The display will show “test 1” followed by three numbers: “0=XXXXX”, “1=XXXXX”, and “2=XXXXX”, where XXXXX is a five-digit number. The display will continuously cycle among these three displays.

To get from the channel 1 test to another channel test, press and hold the <CYC/CAN> key until the desired channel appears on the display.

Use this space to record the numbers you are testing:

Ch 1 0=_____	1=_____	2=_____
Ch 2 0=_____	1=_____	2=_____
Ch 3 0=_____	1=_____	2=_____
Ch 4 0=_____	1=_____	2=_____

To exit either test mode, press the **<CAN>** key. You will return to normal mode.

What the Test Numbers Mean

NOTE: The information in these paragraphs applies to transmitters with the part number 81-00187-05 or C152-5)

The test number “**0**” indicates test results for the transmitters for channels 1 and 2. The number for each of these should be between **15000±5%** and **15500±5%**. If the displayed value is significantly outside of that range, the problem is likely to be in the transmitter rather than in the load cells.

The number 1 indicates the test result for the short-cabled load cell.

The number 2 indicates the test result for the long-cabled load cell.

If you are running the test on an empty truck, the values for all channels should fall between **15000±5%** and **16000±5%**. If any one of the test values is significantly outside of that range while the truck is empty, and the transmitter for that channel is working normally, the corresponding load cell is likely to be malfunctioning.

For additional technical support, call your dealer or SI/Allegany at 1-800-638-5111.

SELF-DIAGNOSTIC

1. Make sure the meter is turned **ON** (Power Switch located in back of meter).
2. Press **<OFF/ENT>** key to turn **OFF** the display. A small dot will travel from left to right at the bottom of the display.
3. Press **<OFF/ENT>** key to turn **ON** the display. At this time the meter will perform a power on sequence and a self-diagnostics. The meter will display "**PASS**" if no errors are detected. The meter is now in operational mode.

GLOSSARY

Actual weight. The weight measured by a legal and certified in-ground or platform scale.

Calibration. Calibration is the process of accurately setting the scale system.

Calibration (cal) numbers. Measurements of the tare weight, full weight and payload weight. Establishing the cal numbers is an essential first step to properly operating the meter.

Displayed weight. The number on the display panel at any given time.

Full weight. The gross or entire weight of the vehicle (or of each axle set) with its payload; one of the two weights used during calibration.

Grad. Short for “graduation size”; an increment of weight, such as 5 kilograms.

Hysteresis (deadband). The allowable variance on a load’s limit so that the load-limit alarm is not unnecessarily activated.

LED. Light-emitting diode.

Limits (set points). The weights programmed into the system which set an upper limit for the truck or trailer’s payload.

Net weight. The weight of the payload only, not of the vehicle plus its payload.

Post-calibration. A process of calibrating the weight once the weight has been removed from the truck. (This can be conducted only by authorized individuals.)

Tare weight. The weight of an empty truck before the payload is added.

Transducer. A mechanical device that's bolted to the suspension of the truck and that measures the bending of the suspension and converts that information into weight reading.

Transmitter. A device that sends a signal from the load cell and converts it to digital pulses that the meter can read and display.

APPENDIX A ERROR MESSAGES

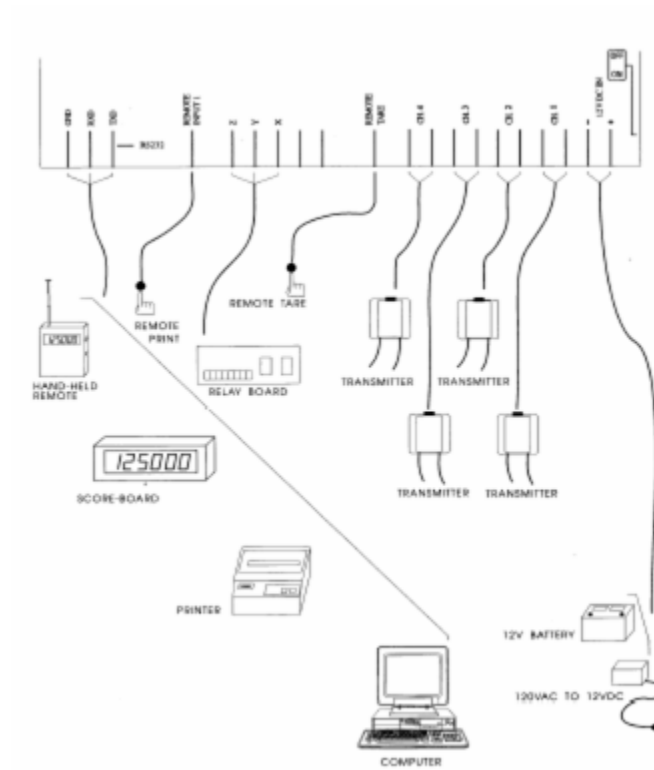
- Err 0** Low input voltage. Check the battery; voltage must be more than 11.25VDC. Check all transmitter cables.
- Err 1** Setup mode locked. See page 30 to unlock it.
- Err 2** Insufficient RAM (random-access memory). Return the meter to the dealer or manufacturer for service.
- Err 3** Meter recalibration required. If this error occurs every time the power is removed from the meter, servicing is required. Return the meter to the dealer or manufacturer.
- Err 4** Defective ROM (read-only memory). Return the meter to the dealer or manufacturer.
- Err 7** ID (password) number does not match with the ID (password) number stored in memory.
- Err 10** Defective channel 1 transmitter. Disconnect cables at load cells; if **Err 10** still displays, replace transmitter.
- Err 11** Faulty signal on the right of channel 1 transmitter. Check the right pig-tail or right load cell.

- Err 12** Faulty signal on the left of channel 1 transmitter. Check the left pig-tail or the left load cell.
- Err 13** Cable between the meter and the transmitter of channel 1 may be disconnected. Check for a secure connection.
- Err 14** Cable of channel 1 has a short. Check cable.
- Err 16** Channel 1 has a transmitter overload or load-cell short. Check cables, transmitter pig-tails and load cells.
- Err 20** Defective channel 2 transmitter. Disconnect cables at load cells; if **Err 20** still displays, replace the transmitter.
- Err 21** Faulty signal on the right of channel 2 transmitter. Check the right pig-tail or the right load cell.
- Err 22** Faulty signal on the left of channel 2 transmitter. Check the left pig-tail or the left load cell.
- Err 23** Cable between meter and transmitter of channel 2 may be disconnected. Check cable for a secure connection.
- Err 24** Cable of channel 2 has a short. Check cable.

- Err 26** Channel 2 has a transmitter overload or load-cell short. Check cables, transmitter pig-tails and load cells.
- Err 30** The full weight calibration is smaller than the tare weight.
- Err 31** Meter has been calibrated with no load or with too light of a load. Requires more load to calibrate full weight.
- Err 32** Display must be less than 2,000 from original tare.
- Err 33** The display weight or the actual weight is smaller than the tare weight.
- Err 80** Defective channel 3 transmitter. Disconnect cables at load cells; if **Err 80** still displays, replace transmitter.
- Err 81** Faulty signal on the right of channel 3 transmitter. Check the right pig-tail or right load cell.
- Err 82** Faulty signal on the left of channel 3 transmitter. Check the left pig-tail or left load cell.
- Err 83** Cable between the meter and the transmitter of channel 3 may be disconnected. Check for a secure connection.
- Err 84** Cable of channel 3 has a short. Check cable.

- Err 86** Channel 3 has a transmitter overload or load-cell short. Check cables, transmitter pig-tails and load cells.
- Err 90** Defective channel 4 transmitter. Disconnect cables at load cells; if **Err 90** still displays, replace the transmitter.
- Err 91** Faulty signal on the right of channel 4 transmitter. Check the right pig-tail or the right load cell.
- Err 92** Faulty signal on the left of channel 4 transmitter. Check the left pig-tail or the left load cell.
- Err 93** Cable between meter and transmitter of channel 4 may be disconnected. Check cable for a secure connection.
- Err 94** Cable of channel 4 has a short. Check cable.
- Err 96** Channel 4 has a transmitter overload or load-cell short. Check cables, transmitter pig-tails and load cells.

APPENDIX B WIRING SYSTEMS



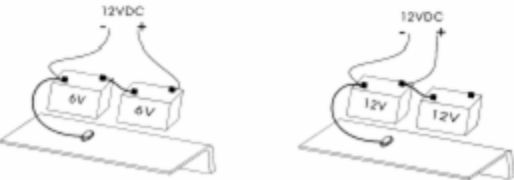
Typical 9100 QC system wiring diagram.



Wiring diagram for remote print button.



Wiring diagram for remote tare button.



Battery connections.

APPENDIX C LED DISPLAY SYMBOLS

<i>SEtUP 1</i>	Setup 1
<i>tArE 1</i>	Tare weight of channel 1
<i>tArE 2</i>	Tare weight of channel 2
<i>tArE 3</i>	Tare weight of channel 3
<i>tArE 4</i>	Tare weight of channel 4
<i>FuLL 1</i>	Full weight of channel 1
<i>FuLL 2</i>	Full weight of channel 2
<i>FuLL 3</i>	Full weight of channel 3
<i>FuLL 4</i>	Full weight of channel 4
<i>CAL 1</i>	Calibration number of channel 1
<i>CAL 2</i>	Calibration number of channel 2
<i>CAL 3</i>	Calibration number of channel 3
<i>CAL 4</i>	Calibration number of channel 4
<i>PCAL-1</i>	Post-Calibrate channel 1
<i>PCAL-2</i>	Post-Calibrate channel 2
<i>PCAL-3</i>	Post-Calibrate channel 3
<i>PCAL-4</i>	Post-Calibrate channel 4
<i>L 1 CH-1</i>	Limit 1 of channel 1
<i>L 1 CH-2</i>	Limit 1 of channel 2
<i>L 1 CH-3</i>	Limit 1 of channel 3
<i>L 1 CH-4</i>	Limit 1 of channel 4
<i>SEtUP 2</i>	Setup 2
<i>LbS</i>	Pounds
<i>KGS</i>	Kilograms

<i>GrAd 20</i>	Grad 20
<i>GrAd 50</i>	Grad 50
<i>GrAd 100</i>	Grad 100
<i>SEtUP 3</i>	Setup 3
<i>tImE</i>	Time
<i>dAtE</i>	Date
<i>YEAr</i>	Year

<i>SEt On</i>	Set on
<i>SEt OFF</i>	Set off
<i>EntEr</i>	Enter
<i>CAnCEL</i>	Cancel
<i>PrInT</i>	Print

<i>HHr On</i>	HHr on (Enables Hand-Held remote)
<i>HHr OFF</i>	HHr off (Disables Hand-Held remote)
<i>Gross</i>	Gross
<i>rESEt</i>	Reset
<i>CH-1</i>	Channel 1
<i>CH-2</i>	Channel 2
<i>CH-3</i>	Channel 3
<i>CH-4</i>	Channel 4
<i>totAL</i>	Total
<i>Auto</i>	Auto-Cycle
<i>tESTi nG</i>	Testing

APPENDIX D SETUP MENU OPTIONS

Setup 1

TARE 1 Set tare weight of channel 1

FULL 1 Set full weight of channel 1

CAL 1 Set calibration number of channel 1

TARE 2 Set tare weight of channel 2

FULL 2 Set full weight of channel 2

CAL 2 Set calibration number of channel 2

TARE 3 Set tare weight of channel 3

FULL 3 Set full weight of channel 3

CAL 3 Set calibration number of channel 3

TARE 4 Set tare weight of channel 4

FULL 4 Set full weight of channel 4

CAL 4 Set calibration number of channel 4

PCAL-1 Post-calibration of channel 1

PCAL-2 Post-calibration of channel 2

PCAL-3 Post-calibration of channel 3

PCAL-4 Post-calibration of channel 4

L1 CH-1 Set limit 1 of channel 1

L1 CH-2 Set limit 1 of channel 2

L1 CH-3 Set limit 1 of channel 3

L1 CH-4 Set limit 1 of channel 4

NOTE: If the instrument is in the 3-channel mode, setup options for channel 4 do not apply.

Setup 2

LBS Display measurement in pounds

KGS Display measurement in kilograms

Grad 20 Graduated increments of 20

Grad 50 Graduated increments of 50

Grad 100 Graduated increments of 100

NOTE: For Setup 2 the currently enabled feature will flash.

Setup 3

Time Set time

Date Set date

Year Set year