



777TS
777 Programmable
Weight Indicator
Truck Storage System
Operation Manual

8545-M412-O1 Rev B
11/06

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REGISTRATION NUMBER _____
DATE OF PURCHASE _____
PURCHASED FROM _____

RETAIN THIS INFORMATION FOR FUTURE USE

<p><i>PRECAUTIONS</i></p> <p>Before using this program, read this manual and pay special attention to all "WARNING" symbols:</p> <p> IMPORTANT</p>

TRUCK STORAGE

Introduction

Thank you for purchasing our Cardinal Truck Storage program for the 777 Programmable Weight Indicating instrument. This program was written with the same Cardinal quality and reliability at our factory in Webb City, Missouri as our scales and indicators. This manual will guide you through operation of your software. Please read it thoroughly before attempting to operate the software and keep it handy for future reference.

Overview

The Truck Storage program has been designed to control three different types of transactions and weighing operations. The first type of transaction assigns a permanent ID number to a truck, has a stored tare weight, and accumulates net weight totals for the ID. The second type assigns a permanent ID number to a truck and accumulates net weight totals for the ID, but doesn't have a permanent stored weight. The third type temporarily assigns an ID number to a truck (while weighing in) and does not accumulate any net weight totals for the ID.

The first type of permanent transaction is a "single pass" transaction and is used to weigh loaded trucks with a permanent ID number and a previously stored tare weight. The stored tare weight requires weighing the empty truck in advance or if the weight of the empty truck is known, by entering that value as a manual tare weight. The single pass transaction completes a ticket and accumulates the net weight for the ID associated with the truck with a "one stop" weighing operation.

The second type of permanent transaction is a "two pass" transaction and is used to weigh the truck once when it is empty and once when it is loaded. A permanent ID number and a previously stored zero (0) tare weight is required. In the two pass transaction, the zero tare weight is replaced by the new tare weight after the first pass and returned to zero after the second pass when the transaction has been completed. The two-pass transaction requires a "two stop" weighing operation. On the first stop, the incoming weight will be stored and an interim ticket will be printed. On the second stop, during the outgoing transaction, a complete ticket will be printed and the net weight for the ID associated with the truck will be added to the accumulator.


The third type is a temporary "two pass" transaction that also requires a "two stop" operation. However, the ID number is only in memory while the truck is weighing in and out and the net weight will not be accumulated. In this type of transaction, on the first pass, the truck will enter the scale and an ID will be selected either by a random method (777 Auto ID Feature) or by the operator entering a number in through the keyboard. The weight will be stored and an interim ticket will be printed. On the second pass, the ID number is entered and the stored weight is recalled for printing the complete ticket. After the ticket has printed, the ID number and the stored weight will be removed from memory.

The above-described operations are typical for facilities handling bulk materials in or out of the facility. Examples would be sand and gravel operations, solid waste and mining or grain operations.

Adding Truck Identification Numbers

1. From the Weight display Screen, press the **FNCT** Key. The screen will change to the Setup Menu #1.
2. Press the **TRKS** key, the screen will change to the Truck Menu.
3. Press the **ADD** key.
4. The screen will display a list **IDs**, press the **NEW** key.
5. Enter up to a 12 digit identification number and press the **ENTER** key.
6. The screen will momentarily display 'LOOKING UP ID', then change to **TARE** and prompt to enter a tare weight.



 **NOTE: The ENTER = xxxxxx displayed is the weight of the empty truck (if an empty truck is on the scale). The CURRENT = 0 displayed, is the stored tare weight, which will be (0) zero when adding a new ID#.**



7. If the displayed weight value for **ENTER =** is the correct value to use for the tare, press the **ENTER** key and proceed to step 9.
8. If the displayed weight value for **ENTER =** is incorrect, using the numeric keys, input the correct value and press the **ENTER** key.
9. The screen will display **NEW TARE ?** and prompt to accept the tare. Press the **YES** key to accept the new tare weight or press the **NO** key for a zero tare weight.
10. The screen will return to the Truck Menu.
11. Repeat steps 3 through 8 for each ID to be added.
12. Press the **EXIT** key to return to the Setup Menu #1.
13. Press the **EXIT** key to return to the weight display screen.



Deleting A Single Truck Identification Number

1. From the weigh display screen, press the **FNCT** key. The screen will change to the Setup Menu Screen.
2. Press the **TRKS** key, the screen will change to the Truck Menu Screen.
3. Press the **DEL** key.
4. Press the **ONE TRUCK ID** key.



NOTE: The ID number entered along with it associated accumulator will be deleted.

5. Enter the ID number to be deleted and press the **ENTER** key.
6. The screen will display the **DELETE** prompt with the default selection. (The default is **NO**.)
7. If the ID number displayed is correct, press the **YES** key and proceed to step 9.
8. If the ID number is incorrect, press the **ENTER**, **NO**, or **FNCT** key.
9. The 777 will return to the Truck Menu Screen.
10. Repeat steps 1 through 7 for all ID's to be deleted.
11. Press the **EXIT** key to return to the Setup Menu #1.
12. Press the **EXIT** key to return to the weight display screen.



Deleting All Truck Identification Numbers

1. From the weigh display screen, press the **FNCT** key. The screen will change to the Setup Menu Screen #1.
2. Press the **TRKS** key, the screen will change to the Truck Menu Screen.



3. Press the **DEL TRK ID'S** key.
4. Press the **ALL TRUCK ID'S** key.



NOTE: This will delete the entire truck storage database of ID numbers along with their associated accumulators.



5. The screen will display a warning prompt that the entire truck storage database will be deleted.
6. To delete all ID numbers, press the **YES** key.
7. The 777 will delete all ID numbers and then return to the Truck Menu Screen.
8. If all ID's are NOT to be deleted, press the **NO** key.
9. The 777 will return to the Truck Menu.
10. Press the **EXIT** key to return to the Setup Menu #1.
11. Press the **EXIT** key to return to the weight display screen.



Printing Truck Identification Numbers

1. From the weigh display screen, press the **FNCT** key. The screen will change to the Setup Menu Screen #1.
2. Press the **TRKS** key, the screen will change to the Truck Menu Screen.
3. Press the **PRINT** key.
4. Press the **ALL ID'S** key.
5. The screen will display



PRINTING TARE WEIGHT LIST.

6. When the list has been printed, the display will return to the Print Menu.
7. Press the **EXIT** key to return to the Truck Menu.
8. Press the **EXIT** key to return to the Setup Menu #1.
9. Press the **EXIT** key to return to the weight display screen.



A sample printing of the ID's is presented below.

Note that ID's 100, 101, 102, and 103 are temporary ID's. These ID's will be removed from the database on the 2nd pass weighment and there are no accumulators.

ID's 12345, 2222, and 3434343 permanent Ids, they will remain in the database until they are deleted. These ID's have accumulators associated with them.



TRUCK ID STORED TARE WEIGHT LIST			

14:31			
01-26-2000			
ID# 100	ST=	0 lb	TEMP.
ID# 101	ST=	242 lb	TEMP.
ID# 102	ST=	242 lb	TEMP.
ID# 103	ST=	242 lb	TEMP.
ID# 12345	ST=	1000 lb	
ID# 2222	ST=	242 lb	
ID# 3434343	ST=	242 lb	

Printing/Clearing ID Accumulators

1. From the weigh display screen, press the **FNCT** key. The screen will change to the Setup Menu Screen #1.
2. Press the **TRKS** key, the screen will change to the Truck Menu Screen.



3. Press the **PRINT** key.
4. Press the **ACCUMS**.
5. The screen will display

PRINTING TRUCK LIST.



6. When the list has been printed, the display will prompt for YES or NO response for clearing the accumulators for all of the Ids in the database.



7. To clear the accumulators (set to zero), press the **YES** key.



8. To leave the accumulators unchanged, press the **NO** key.

9. Press the **EXIT** key to return to the Truck Menu.

10. Press the **EXIT** key to return to the Setup Menu #1.

11. Press the **EXIT** key to return to the weight display screen.



Printing/Clearing Grand Net Weight Accumulators

- From the weigh display screen, press the **FNCT** key. The screen will change to the Setup Menu Screen #1.
- Press the **TRKS** key, the screen will change to the Truck Menu Screen.



- Press the **PRINT** key.
- Press the **GRAND NET ACCUM** key.
- The screen will display

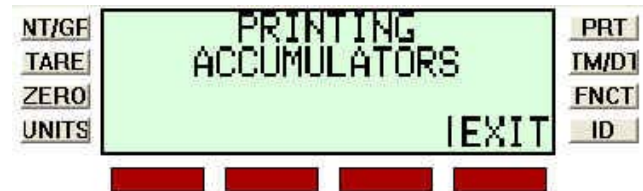


PRINTING ACCUMULATORS.

- When the accumulators have been printed, the display will prompt for clearing the accumulators.
- To clear the accumulators, press the **YES** key.
- To leave the accumulators unchanged, press the **NO** key.

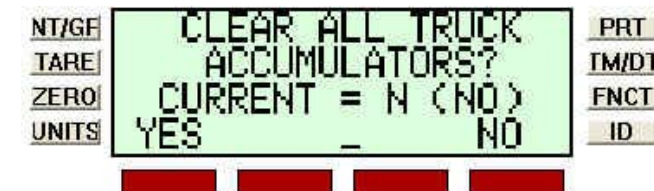
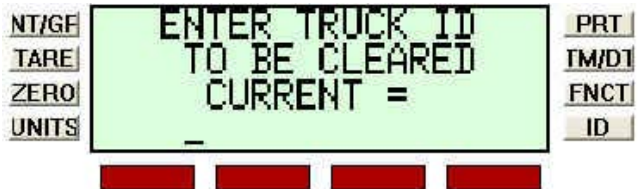
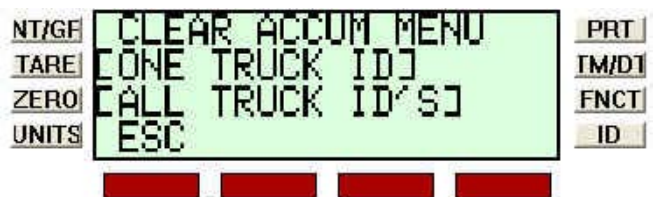


- Press the **EXIT** key to return to the Print Menu.
- Press the **EXIT** key to return to the Setup Menu #1.
- Press the **EXIT** key to return to the weight display screen.



Clearing Truck ID Net Weight Accumulators

1. From the weigh display screen, press the **FNCT** key. The screen will change to the Setup Menu Screen #1.
2. Press the **TRKS** key, the screen will change to the Truck Menu Screen.
3. Press the **CLR** key.
4. Press the **ONE TRUCK ID** key.
5. Enter the Truck ID.
6. Press the **ALL TRUCK ID'S** key, to clear the net weight accumulators for all trucks.
7. To clear the accumulator(s), press the **YES** key.
8. To leave the accumulator(s) unchanged, press the **NO** key.
9. Press the **EXIT** key to return to the Setup Menu #1.
10. Press the **EXIT** key to return to the weight display screen.



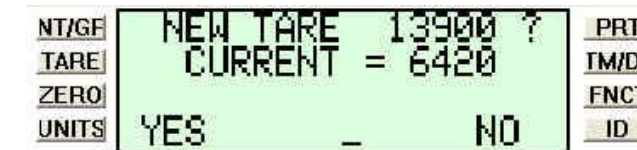
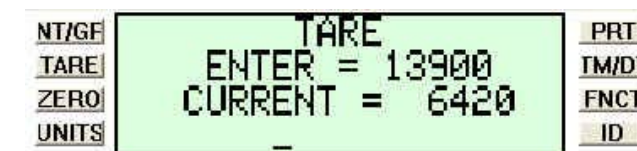
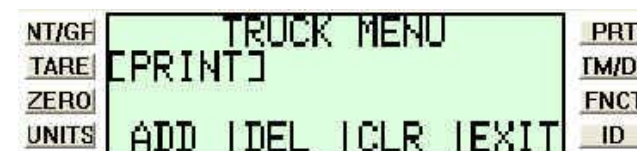
Editing Truck Identification Numbers

1. From the Weight display Screen, press the **FNCT** Key. The screen will change to the Setup Menu #1.
2. Press the **TRKS** key, the screen will change to the Truck Menu.
3. Press the **ADD** key.
4. The screen will display a list of **IDs**, select the ID from the list or press the **NEW** key.
5. If the **NEW** key was pressed, enter up to a 12 digit identification number and press the **ENTER** key.
6. The screen will momentarily display 'LOOKING UP ID', then change to TARE and prompt to enter a tare weight.



NOTE: The **ENTER = xxxxxx** displayed is the weight of the empty truck (if an empty truck is on the scale). The **CURRENT = xxxxxx** displayed, is the stored tare weight.

7. If the displayed weight value for **ENTER =** is the correct value or the **CURRENT =** is the correct value to use for the tare, press the **ENTER** key and proceed to step 9.
8. If the displayed weight value for **ENTER =** is incorrect, using the numeric keys, input the correct value and press the **ENTER** key.
9. The screen will display **ACCEPT?** and prompt to accept the tare. Press the **YES** key to accept the new tare weight or press the **NO** key to leave the **CURRENT** tare weight unchanged.
10. The screen will return to the Truck Menu.
11. Repeat steps 3 through 8 for each ID that is to be added.
12. Press the **EXIT** key to return to the Setup Menu.
13. Press the **EXIT** key to return to the weight display screen.

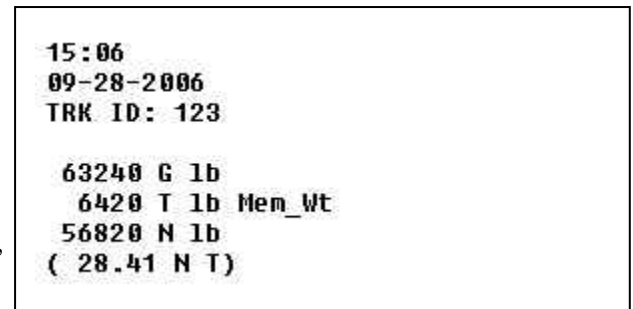
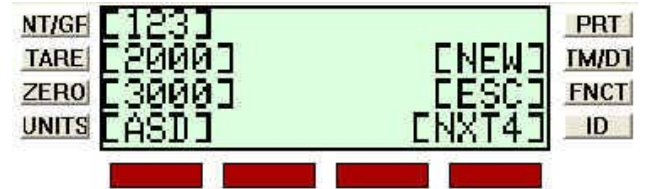


Truck Storage Operation

Permanent ID - Single Pass Transaction (One Stop Operation)

The single pass transaction is a one stop operation used to weigh LOADED trucks with a permanent ID number and a previously stored tare weight associated with that ID number. This requires weighing the empty truck in advance or if the empty weight is known, by entering that value as a manual tare weight.

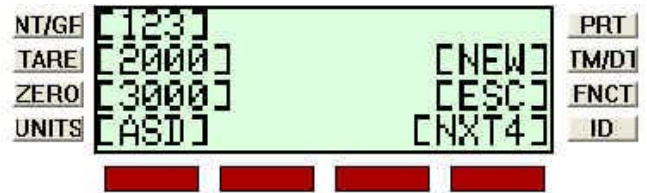
1. Loaded truck pulls on to the scale.
2. From the weight screen, press the **ID** key. The screen will show a list of ID's, select the desired ID or press the **NEW** key and enter the ID. Pressing the **NXT4** key will display the next 4 IDs.
3. The screen will momentarily display **LOOKING UP ID**, then **ID FOUND**, and then change back to the weight display screen. The Gross, Tare, and Net weights will be displayed.
4. Press the **PRINT** key.
5. The Net weight will be added to the accumulator of the entered ID and a ticket will print with the TIME, DATE, ID, Consecutive Number (if enabled), the Gross, Tare, and Net weights. In addition, the Net weight in US Tons will be printed.
6. After the ticket is printed, the Gross weight will be displayed.



Truck Storage Operation

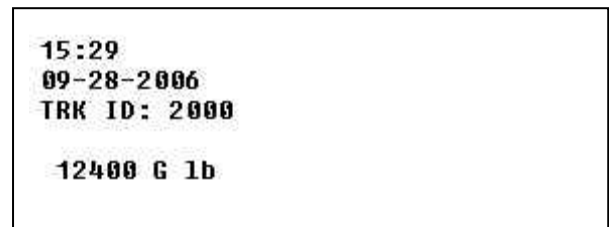
Permanent ID - Two Pass Transaction (Two Stop Operation)

The two-pass transaction is a two-stop operation used to weigh the truck once when it is empty and once when it is loaded. A permanent ID number and a previously stored zero (0) tare weight associated with that ID number are required. In the two pass transaction, the zero (0) tare weight will be replaced by the new tare weight after the first pass and the stored weight will return to zero (0) after the second pass. On the first stop, the incoming weight will be stored and an interim ticket will be printed. On the second stop, during the outgoing transaction, a complete ticket will be generated and the net weight will be added to the permanent ID number accumulator.



Inbound Empty or Loaded Truck

1. Truck pulls on to the scale.
2. From the weight screen, press the **ID** key.
3. A list of IDS will be displayed, select the desired ID from the list or press the **NEW** key and enter the ID at the prompt.
4. The screen will momentarily display **LOOKING UP ID, ID FOUND,** then **ZERO WEIGHT STORED.**
5. The display will then change back to the weight screen with the Gross weight displayed.
6. A ticket will automatically be printed with the time, date, ID, and the gross weight.



Truck Storage Operation

Permanent ID - Two Pass Transaction (Two Stop Operation, Cont.)

Outbound Empty or Loaded Truck

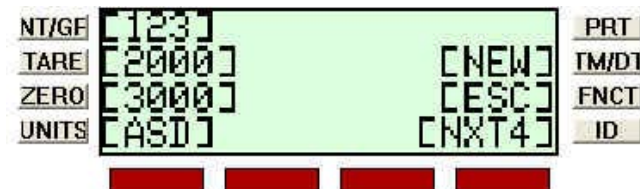
1. Truck pulls on to the scale.
2. From the weight screen, press the **RECORD** key.
3. A list of IDs will be displayed. Select the desired ID from the list or press the **TRUCK ID** key and enter the ID.



4. The screen will momentarily display

LOOKING UP ID, then

ID FOUND.



The display will return to the weight screen, the Gross, Tare, and Net weights will be displayed.

5. Press the **PRINT** key.
6. The Net weight will be added to the accumulator for the ID and a ticket will be printed.
7. After the ticket has been printed, the weight display will show the Gross weight.



Truck Storage Operation

Temporary ID

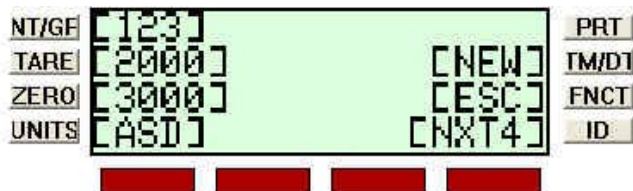
In order to track trucks that are not a regular visitor to the scale, the temporary identification number feature of the 777 Truck Storage will need to be used. This is a two-pass transaction similar to the two pass, two-stop operation used on trucks with permanent ID numbers. The difference is the ID used in a temporary transaction is only in memory while the truck is weighing in and out and the net weight is NOT accumulated, only printed on the complete ticket.

Temporary Auto ID Feature

The ID number used for temporary transactions can be selected by the operator and entered through the keyboard or it can be generated by the *AUTO ID* feature of the 777. After pressing the **ID** key at the weight display screen, a list of IDs already in the system will be displayed. The operator will press the **NEW** key to enter a new ID into the system. ID will be displayed and the operator will be prompted to press the **ENTER** key to generate an ID or to manually enter the ID. If the **ENTER** key is pressed an ID will be generated and the scale weight will be stored for this ID. Note that Auto IDs start at 100 and will increment sequentially.



NOTE: With temporary ID numbers (manually entered or Auto ID) once a transaction has been completed (G-T-N ticket printed), the ID number can be used again.

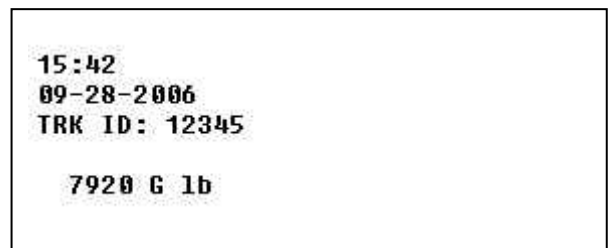
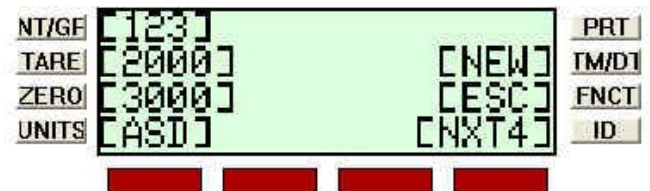


Truck Storage Operation

Temporary ID

Inbound Empty or Loaded Truck

1. Truck pulls on to the scale.
2. From the weight display screen, press the **ID** key.
3. A list of IDs in the system will be displayed, press the **NEW** key. The ID entry screen is displayed.
4. At this prompt, enter the ID number manually or press the **ENTER** key only to generate the ID.
5. If the ID was entered manually, then the operator will be prompted to enter the TARE weight. Manually enter the tare weight and press the **ENTER** key or press the **ENTER** key only to use the scale weight as the tare weight.
6. A ticket will be printed, and the 777 will return to the weight display screen.
7. Truck exits the scale.

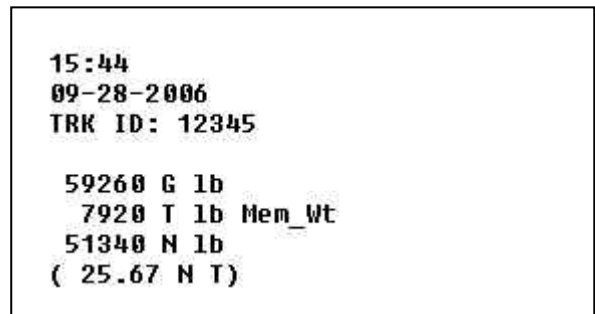
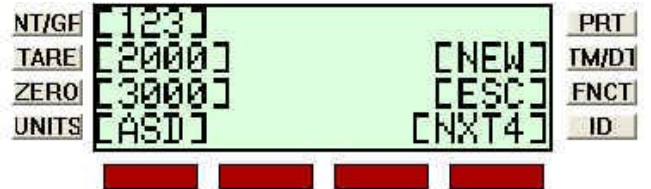
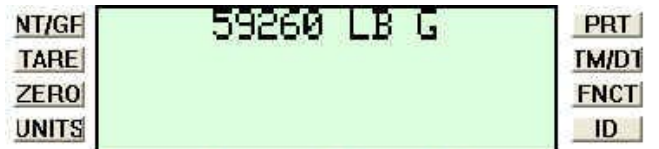


Truck Storage Operation

Temporary ID

Outbound Empty or Loaded Truck

1. Truck pulls on to the scale.
2. From the weight display screen, press the **ID** key.
3. A list of IDs in the system will be displayed, either select the desired ID or manually enter the ID.
4. The 777 will return to the weight display screen, the Gross, Tare, and Net weights will be displayed.
5. The operator presses the **PRINT** key.
6. A ticket will be printed, and the 777 will display the Gross weight.
7. Truck exits the scale.



Header Printing Setup

1. From the weight display screen, press the **MENU** key. From the **SETUP MENU**, press the **HDRS** key.
2. Enter the company name at the prompt.
3. Enter the company address at the prompt.
4. Enter the Company City, state, and zip code at the prompt.
5. Enter the company telephone number at the prompt.
6. Press the **EXIT** key, to return to the weight display screen.



Printer Port Setup

To set the printer port and the printer type press the **FNCT** key from the weight display screen. From the **SETUP MENU #1**, press the **PORT** key.



From the **PORTS SETUP MENU**, press the **PRNT** key.



The **PRINTER SETTINGS** menu will be displayed.



Pressing the **PORT** key will display the following menu.



Press each key for the following functions:

- **'PORT'** - Press to select the port.
- **'BAUD'** - Press to select the baud rates.
- **'PAR'** - Press to select the parity setting.
- **'DATA'** - Press to select the number of data bits.
- **'STOP'** - Press to select the number of stop bits.
- **'SAVE'** - Press to save changes and return to the **PRINTER SETTINGS MENU**.
- **'ESC'** - Press to abandon changes and return to the **PRINTER SETTINGS MENU**.

Audit Printer Setup

To enable/disable the audit trail printer, press the **AUD PRT** key in the **PORTS SETUP MENU** screen.



The second line on the display shows the current audit printer port settings, the third line shows the current printer type selection and the data format.

Press each key for the following functions:

- **'PORT'** - Press to change the printer port configuration.
- **'TYPE'** - Press to toggle between supported printers. Line 3 on the display will show selection.
- **'OUT'** - Press to set the data format.
 - AUDIT:** The format will print one data item per line, left justified, on the page. The data is printed in the same sequence as it is on the printer attached to the printer port. However, all vertical and horizontal tabbing is ignored on the audit printer.
 - DUPLICATE:** The format will produce printed output exactly like the output produced on the printer port.
 - COMMA:** The format will print each data item on one line separated by a comma. The data will be in the same sequence as it is on the printer attached to the printer port.
- **'EXIT'** - Press to return to the **PORTS SETUP MENU**.

Pressing the **PORT** key will display the following menu.



Press each key for the following functions:

- **'PORT'** - Press to select the port.
- **'BAUD'** - Press to select the baud rates.
- **'PAR'** - Press to select the parity setting.
- **'DATA'** - Press to select the number of data bits.
- **'STOP'** - Press to select the number of stop bits.
- **'SAVE'** - Press to save changes and return to the **PRINTER SETTINGS MENU**.
- **'ESC'** - Press to abandon changes and return to the **PRINTER SETTINGS MENU**.

Tab Setting



The Ticket Printer tab settings do not apply to the Audit Trail printer unless the DUPLICATE format was selected.

To set the printer tab settings, press the **FNCT** key on the main weight display screen.



The **SETUP MENU #1** screen will be displayed.



Press the **PORT** key.



Press the **PRNT** key.

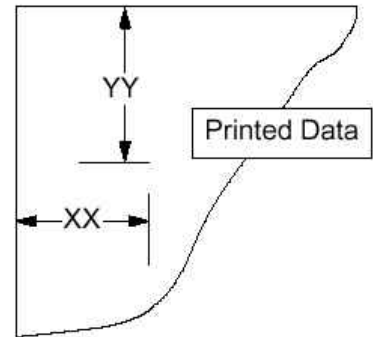


Press the **TABS** key.

The following prompts will be displayed.

The format for entering the tab settings are as follows:

- The first two digits YY specify the line the data is to be printed on, the decimal point is a required de-limiter.
- The last two digits XX specify the column where the data is to start printing.
- If a particular data item is not to be printed, then enter either 00.00 or 99.99 for the tab setting.



NOTE: In the following figure the data will be printed on line 1 column 0.



Enter the tab settings for the Company Name at this prompt.



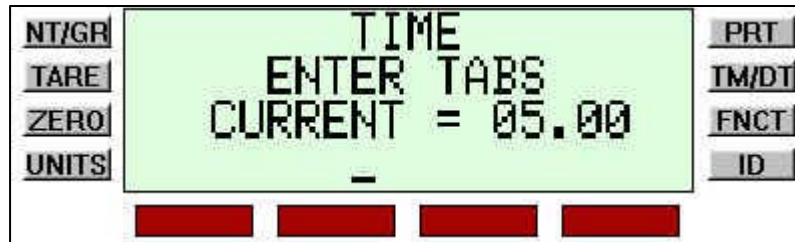
Enter the tab settings for the Company Street Address at this prompt.



Enter the tab settings for the Company City at this prompt.



Enter the tab settings for the Company Phone Number at this prompt.



Enter the tab settings for the Time at this prompt.



Enter the tab settings for the Date at this prompt.



Enter the tab settings for the Truck ID at this prompt.



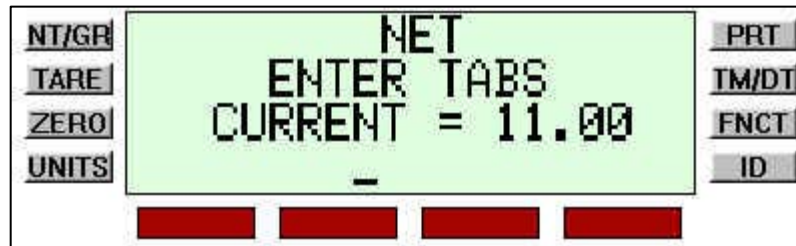
Enter the tab settings for the Consecutive Number at this prompt.



Enter the tab settings for the Gross weight at this prompt.



Enter the tab settings for the Tare weight at this prompt.



Enter the tab settings for the Net weight Name at this prompt.



Enter the tab settings for the Net weight in tons at this prompt.

If this is a multi-scale operation and the print all scales option has been enabled, up to three additional prompts may be displayed.

Enter the tab settings for the individual scale Gross weight at this prompt. There will be a similar prompt for each scale in the system.



At this prompt, an offset can be entered so that when the Gross-Tare-Net print is done it will not print over the inbound weight data.



The entry is similar to the tab settings, the first 2 digits specify a vertical offset and the last 2-digits specify a horizontal offset. For example, if the Gross-Tare-Net data is to be printed on the same lines as the inbound data, but 20 columns to the right then the entry would be 00.20. If the data is to be printed below the inbound data by 20 lines then the entry would be 20.00. Any combination of vertical and horizontal offsets may be specified.

A selection can be made for printing the header information on both the inbound and outbound tickets.



Entering a '1' will print the headers on the inbound ticket only, entering a '2' will print the headers on the outbound ticket only, and entering a '3' (default) will print the headers on both the inbound and outbound tickets.

Scoreboard Port Setup

To set the scoreboard port and select the scoreboard type press the **MENU** key from the weight display screen. From the **SETUP MENU**, press the **PORT** key.



From the **PORTS SETUP MENU**, press the **SCBD** key.



The **SCOREBOARD SETTINGS** menu will be displayed.



The second line on the display shows the current scoreboard port settings, the third line shows the current scoreboard type selection. For the **COMPUTER I/F** type, the output mode will also be displayed.

Press each key for the following functions:

- **'PORT'** - Press to change the printer port configuration.
- **'TYPE'** - Press to toggle between supported scoreboards. Line 3 on the display will show selection.
- **'OUT'** - Press to set the output mode for the **COMPUTER I/F** type.
- **'EXIT'** - Press to return to the **PORTS SETUP MENU**.

Pressing the **PORT** key will display the following menu.



Press each key for the following functions:

- **'PORT'** - Press to select the port.
- **'BAUD'** - Press to select the baud rates.
- **'PAR'** - Press to select the parity setting.
- **'DATA'** - Press to select the number of data bits.
- **'STOP'** - Press to select the number of stop bits.
- **'SAVE'** - Press to save changes and return to the **SCOREBOARD SETTINGS MENU**.
- **'ESC'** - Press to abandon changes and return to the **SCOREBOARD SETTINGS MENU**.

Computer Port Setup

To set the computer port and select the computer output mode press the **MENU** key from the weight display screen. From the **SETUP MENU**, press the **PORT** key.



From the **PORTS SETUP MENU**, press the **COMP** key.



The **COMPUTER SETTINGS** menu will be displayed.



The second line on the display shows the current computer port settings, the third line shows the current computer output mode selection.

Press each key for the following functions:

- **'PORT'** - Press to change the printer port configuration.
- **'TYPE'** - Press to toggle between supported printers. Line 3 on the display will show selection.
- **'OUT'** - Press to set the output mode for the **COMPUTER I/F** type.
- **'EXIT'** - Press to return to the **PORTS SETUP MENU**.

Pressing the **PORT** key will display the following menu.



Press each key for the following functions:

- **'PORT'** - Press to select the port.
- **'BAUD'** - Press to select the baud rates.
- **'PAR'** - Press to select the parity setting.
- **'DATA'** - Press to select the number of data bits.
- **'STOP'** - Press to select the number of stop bits.
- **'SAVE'** - Press to save changes and return to the **COMPUTER SETTINGS MENU**.
- **'ESC'** - Press to abandon changes and return to the **COMPUTER SETTINGS MENU**.

Displaying All Scales

1. From the weight display screen, press the **MENU** key. From the **SETUP MENU #1**, press the **NEXT** key.



2. From the **SETUP MENU #2** screen, press the **DSP ALL** key to toggle between **YES** and **NO** for this option. If **YES** is chosen then, in the Gross weight mode each individual scales Gross weight will be displayed. If the scales have been totalized (see scale card calibration) then the total Gross weight will also be displayed.

Printing All Scales

1. From the weight display screen, press the **MENU** key. From the **SETUP MENU #1**, press the **NEXT** key.



2. From the **SETUP MENU #2** screen, press the **PRT ALL** key to toggle between **YES** and **NO** for this option. If **YES** is chosen then, in the Gross weight for each individual scales will be printed on the ticket. Additional tab settings will be prompted for when setting the tabs.

Threshold

1. From the weight display screen, press the **MENU** key. From the **SETUP MENU #1**, press the **NEXT** key.



2. Press the **THRESHOLD** key to and then enter the weight value. If the weight value is greater than zero then another ticket will **NOT** be printed until the scale Gross weight goes below this value.

Multi-Draft Operation

Multi-draft weighing is used when the vehicle to be weighed will not fit on the scale. In this mode the operator may take two or more weighments to acquire the total weight of the vehicle.

NOTE: THIS MODE OF OPERATION IS NOT LEGAL FOR TRADE.

To enable multi-draft weighting, press the **FNCT** key. **SETUP MENU #1** screen will be displayed.

Press the **M-DRAFT** key to toggle between turning the multi-draft mode **ON** or **OFF**.



After Multi-draft has been turned on, press the **EXIT** key to return to the Multi-Draft weight display screen.

Pull first part of vehicle onto the scale. The scale weight is shown on the top line.



Press the **DRFT** key, the current scale weight will be added to the total weight (line 2).



After all drafts have been made and added to the total, press the **TOTAL** key. Both line will now display the total weight.



The total weight will be used for all of the truck storage operations.

If this is a multi-scale configuration then **SCALE 1 MUST** be used for the multi-draft weighing operations.

NOTE: MULTI-DRAFT WEIGHING IS NOT AVAILABLE IN THE DUAL RANGE MODE.

Dual Range Operation

Dual Range operation is available for a single scale configuration.

Dual range has two modes of operation, the first is auto range and the second is fixed range.

For illustration purposes, assume that the weight range #1 is 200,000 by 20 lbs and range #2 is 400,000 by 50 lbs. These two weight ranges may be set during the software configuration, described later.

In auto range, any time the scale weight is less than 120,000 lbs the range will be 200,000 X 20 lb, above 200,000 lbs the range is 400,000 X 50 lbs.

In the fixed range mode, the range will always be 400,000 X 50 lbs.

To switch between the auto and fixed range modes, press the **UNITS** key.

The scale **MUST** be calibrated at the capacity for range #2 by the interval for range #1, in this example 400,000 X 20 lb range. **The dual range operation is only available for lb operations.**

The range will be displayed during normal operation of the scale.



Dual Range Setup

To access the **DUAL RANGE SETUP** menu, press the **FNCT** key.



Press the **NEXT** key.



Press the **DUAL RANGE** key.



To set the capacity and interval for each range, press the key adjacent to the range #.



Enter the range capacity at this prompt.



Enter the range interval at this prompt.



Press the **ENABLE** key turn on the dual range operation. If the scale is not calibrated properly, an error message similar the following will be displayed for approximately 5 seconds.



Notes

STATEMENT OF LIMITED WARRANTY

Cardinal Scale Manufacturing Company warrants that its equipment to be free from defects in material and workmanship as follows:

Cardinal Scale warrants to the original purchaser only that it will repair or replace any part of equipment which is defective in material or workmanship for a period of one **(1) year** from date of shipment. Cardinal shall be the sole judge of what constitutes a defect.

During the **first ninety (90) days** Cardinal will supply all necessary replacement parts and service during normal weekday working hours at no charge to the buyer.

After the first ninety (90) days Cardinal will supply parts and service at the job site provided the owner agrees to pay the Dealer for all travel time, including mileage and test equipment, as well as any expenses incurred over the direct labor of the technician at the job site. This limited warranty honors only labor performed by Cardinal authorized dealers.

This warranty does not apply to peripheral equipment not manufactured by Cardinal; this equipment will be covered by certain manufacturer's warranty only.

This warranty does not include replacement of expendable or consumable parts. This does not apply to any item which has deteriorated or damaged due to wear, accident, misuse, abuse, improper line voltage, overloading, theft, lightning, fire, water or acts of God, or due to extended storage or exposure while in purchaser's possession. This warranty does not apply to maintenance service. Purchased parts will have a ninety (90) day repair or replacement warranty only.

Cardinal may require components be returned to the factory; they must be properly packed and shipping charges prepaid. A return authorization number must be obtained for all returns and marked on the outside of all returned packages. Cardinal Scale accepts no responsibility for loss or damage in transit.

In addition to the standard one **(1) year** limited warranty, Cardinal offers the following "Deck and Below Warranty" on new Cardinal truck scale models EPR, PRC, SRL, and SRC with a Cardinal indicator and surge suppressor which have been properly installed and grounded by a Cardinal dealer and are being actively maintained under a continuous service contract. Cardinal warrants to the original purchaser that it will repair or replace, at its option, components including steel weighbridge, mechanical levers and suspension parts, load cells, electrical boxes, which, in Cardinal's judgment is defective for a period of five (5) years from the date of original shipment. Excluded are any cosmetic imperfections caused by exposure, wear and tear, or load cells damaged by lightning, over voltage, overloading, or submersion, concrete and rebar or any other items supplied by others.

No labor at the job site or labor of any kind will be allowed after the first year of this warranty.

Conditions Which Void Limited Warranty

This warranty shall not apply to equipment which:

- A.) Has been tampered with, defaced, mishandled or have had repairs and modifications not authorized by Cardinal.
- B.) Has had serial number altered, defaced, or removed.
- C.) Has not been grounded according to Cardinal's recommended procedure.

Freight Carrier Damage Claims for equipment damaged in transit must be referred to the freight carrier in accordance with freight carrier regulations.

This warranty sets forth the extent of our liability for breach of any warranty or deficiency in connection with the sale or use of the product. Cardinal will not be liable for consequential damages of any nature, including but not limited to, loss of profit, delays or expenses, whether based on tort or contract. Cardinal Scale reserves the right to incorporate improvements in material and design without notice and is not obligated to incorporate improvements in equipment previously manufactured.

The foregoing is in lieu of all other warranties, express or implied including any warranty that extends beyond the description of the product including any warranty of merchantability or fitness for a particular purpose. This warranty covers only those Cardinal products installed in the forty-eight (48) contiguous continental United States.



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