825 Highway Weigh Station

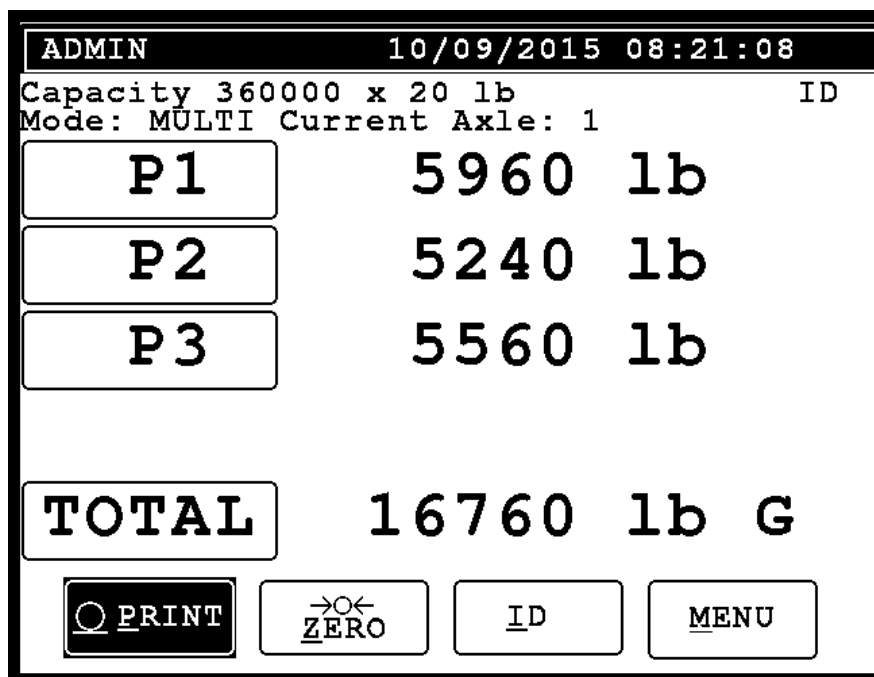## 825 Software Addendum

Sep 8, 2015
Revision 1.1.46

Introduction:

This addendum is furnished as a guide to the operation of the 825 Highway Weigh Station application. This is in addition to the 825 user manual which should be referred to regarding setup, installation, and operation of the 825 Spectrum digital indicator.

Description:

This application is designed to be used at a highway weigh station installation. The application has three modes of operation and outputs for various peripheral devices. The ticket formatting can be adjusted from the application by the user, as well as certain elements of the text that is printed on the ticket. There are output pins that can be used for traffic light control as well as the option to use a SB500 that has a built in traffic light.

Main Screen:

```
┌─────────────────────────────────────────────┐
│ ADMIN              10/09/2015 08:21:08       │
│ Capacity 360000 x 20 lb               ID     │
│ Mode: MULTI Current Axle: 1                  │
│  ┌─────────┐                                 │
│  │   P1    │      5960 lb                    │
│  └─────────┘                                 │
│  ┌─────────┐                                 │
│  │   P2    │      5240 lb                    │
│  └─────────┘                                 │
│  ┌─────────┐                                 │
│  │   P3    │      5560 lb                    │
│  └─────────┘                                 │
│                                              │
│  ┌─────────┐                                 │
│  │ TOTAL   │     16760 lb G                  │
│  └─────────┘                                 │
│  ┌────────┐ ┌──────┐ ┌──────┐ ┌──────┐      │
│  │○ PRINT │ │ ZERO │ │  ID  │ │ MENU │      │
│  └────────┘ └──────┘ └──────┘ └──────┘      │
└─────────────────────────────────────────────┘
```

This is the main user screen that will be visible during normal operation. In AUTO mode the buttons above will be visible. If the application is set to SEMI – auto mode then a "GO" button will be visible above the PRINT button. If in MULTI mode then the labels "TOTAL", "P1", "P2", "P3", "P4" will be activated as buttons for axle weighing (See MULTI operation below for more information). Following is a description of the buttons on the main screen:

"PRINT":

Pressing the PRINT button will print a weight ticket if the indicator is in SEMI-auto mode. This key will also print a ticket for a MULTI mode transaction, similar to pressing the TOTAL label (see MULTI operation below for more information). In AUTO mode the tickets will be automatically printed for violators (see AUTO operation below for more information), but you can force a Ticket by pressing PRINT even if there are no violations.
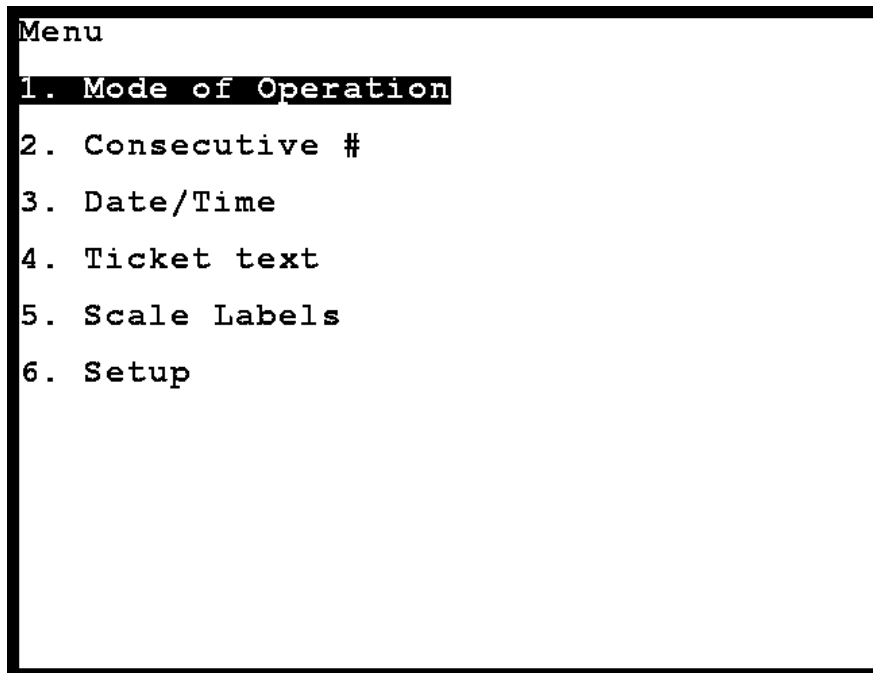
"ZERO":

Pressing the ZERO key will automatically zero all scales.

"ID":

Pressing the ID key will allow you to enter an ID for the current truck up to ten characters. The ID will be displayed on the main screen in the upper right corner.
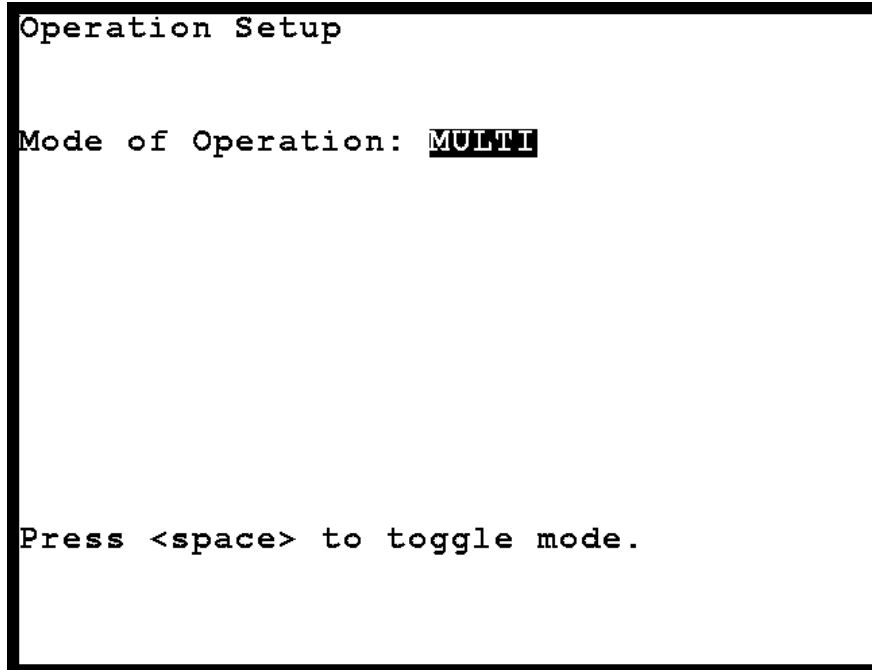
"MENU":

Pressing the MENU key will open the setup menu where you can adjust the settings that control the application.

```
Menu
1. Mode of Operation
2. Consecutive #
3. Date/Time
4. Ticket text
5. Scale Labels
6. Setup
```

From the menu screen there are 6 options that can be selected to set up different aspects of the application and how it will operate. These options are described below:

1. **Mode of Operation:**

```
Operation Setup


Mode of Operation: MULTI




Press <space> to toggle mode.

```

Select Mode of Operation will open the screen above where you can set the current mode of operation. The description of the modes are as follows:

AUTO: When a truck pulls on the scale, the traffic light will switch to red when the on threshold is exceeded on the first platform. If any platform or total weight exceeds the violation presets, a ticket will be printed. The light will then change to green until the truck starts to exit the scale. The light will then change to red until the truck has cleared the scale.

SEMI: When a truck pulls on the scale, the traffic light will switch to red when the on threshold is exceeded on the first platform. If any platform or total weight exceeds the violation presets, a ticket can be printed by pressing PRINT button, or the truck can be released by pressing the GO button. The light will then change to green until the truck starts to exit the scale. The light will then change to red until the truck has cleared the scale.

MULTI: This mode is used to weigh vehicles that do not correctly fit on the scale. In this mode all operations are manual including the traffic light. Print correctly positioned axles by pressing the corresponding platform label (e.g. P1, P2, P3, P4). The indicator will prompt for whether this axle is in violation. Once all axles have been recorded, press the TOTAL label to print the ticket or the PRINT button to print all the current weights on the scale plus the total.

2. Consecutive #:

```
Consecutive Numbering Setup


Consecutive #: 0









Enter consecutive number.
```

Selecting Consecutive # will open the screen above. Here you can set the ticket number that will be used for the next ticket printing. Press <enter> to accept this screen or left arrow or ESC to cancel without saving.

3. Date/Time

```
Set Date/Time
Year:    2015
Month:   10
Day:     9
Hour:    8
Minute: 37
Second: 38



Enter the year

```

Selecting Date/Time will allow you to set the current date and time settings for the indicator. Use the arrow keys to navigate between the different fields and press <ENTER> when complete to save the settings.

4. **Ticket Text:**

```
Ticket Text Setup


Hdr1: Cardinal Scale Manufacturing Co.
Hdr2: Webb City, MO
Hdr3:
Hdr4: 417-673-4631


Violation text enabled: Yes
Violation text: *V*
Header 1 Text
```

Selecting Ticket Text will open the above screen. Here you can set the four lines of header text that is printed on the ticket. You can also set the text that is printed with the axle weight if it is in violation. This text is only printed if the Violation text enabled is set to "Yes".

5. **Scale Labels**

```
Label Scales
1:      P1
2:      P2
3:      P3
4:      P4




Press [ENTER] to save all
```

Here you can change the label each scale has associated with it. The label will appear on the main screen to identify the scales as well on the printed ticket.

6. Setup

```
Menu
1. Printer Setup
2. Scoreboard Setup
3. Audit Printer Setup
4. Computer Output Setup
5. Tab Stop Setup
6. Presets Setup
7. Local Remote Setup
8. Reset Counter
```

This will open up a sub menu contacting additional setup.

1. Printer Setup:

```
Printer Setup


Enabled: Yes
Port: COM1
Baud: 9600
Data Bits: 8
Stop Bits: 1
Parity: None


Enable ticket printer?
```

Selecting Printer Setup will open the screen above. You can set the printer port options here and enable and disable the printer. The settings can only be changed/toggled by pressing the <space> key on the indicator or attached USB keyboard when they are highlighted. Navigate between the settings using the arrow keys being careful not to use the left arrow key as this will cancel the input to this screen. When you are finished changing the settings, press <Enter> on the keypad to save the settings, or press the left arrow or ESC to cancel.

2. **<u>Scoreboard Setup:</u>**

```
Scoreboard Setup


Enabled: No
Type:
Port:
Baud:
Data Bits:
Stop Bits:
Parity:
Enable scoreboard output?
```

Selecting Scoreboard setup will allow you to adjust the port settings for the scoreboard and enable or disable it. The settings can be changed by highlighting the desired setting and pressing the <space> key on the keypad or attached USB keyboard. When you are finished making changes, press the <ENTER> key to accept and save the changes or press <SHIFT> and then the ESC key to cancel.

3. **Audit Printer Setup:**

```
Audit Printer Setup


Enabled: No
Mode:
Port:
Baud:
Data Bits:
Stop Bits:
Parity:
Enable audit printer?
```

Selecting Audit Printer Setup will allow you to enable or disable and change the settings of an attached audit printer. The settings can be altered by pressing the <space> key on the keypad. There is also a "Mode" setting here which will dictate the format that will be used by the audit printer. The modes are:

AUDIT: This setting will print the truck information on a single line.

DUPLICATE: This setting will print an exact duplicate of the ticket sent to the ticket printer.

COMMA: This setting will print the truck information in a comma delimited line followed by a carriage return.

4. **Computer Output Setup:**

```
Computer Output Setup


Enabled: No

Port:

Baud:

Data Bits:

Stop Bits:

Parity:


Enable computer output?
```

Selecting Computer Output Setup will allow you to change the port settings for the Cardinal PC format output. The settings can be changed by pressing the <space> key on the keypad. When finished, press <enter> to accept the changes or press left arrow or ESC to cancel.

5. **Tab Stops Setup:**

```
Ticket Tabs Setup
Item                              Row       Col
Header 1
Header 2
Header 3
Header 4


Time
Date


ID


Consecutive #


Total Weight
Platform 1 Weight
Platform 2 Weight
Platform 3 Weight
Platform 4 Weight
```

Pressing Tab Stop Setup will open the screen above. Here you can set the locations to print the various ticket items. Each item has a row and a column where the item will be printed. To disable printing of an item, enter a 0 (zero) in the row of that item. Note: this print format assumes a printer with 80 columns and 66 rows. If your printer doesn't support this format, contact Cardinal for more information.

6. **Presets Setup:**

```
Presets Setup


On Threshold: 1500

Total violation:

P1 Violation:

P2 Violation:

P3 Violation:

P4 Violation:



Enter the on threshold
```

Selecting Presets Setup will open the screen above. Here you can set the various presets associated with the application. Description of the settings are:

On Threshold: This is the amount of weight that will trigger the system to recognize that a truck is on the scale. This weight is only associated with platform 1. So when platform 1 has more weight that is greater than or equal to this weight it will change the light to red and either print (AUTO mode), or wait for the operator to press the PRINT key (SEMI mode). This threshold is not used in MULTI mode.

Total Violation: The amount of total gross weight that will be considered a violation. Any weight greater than or equal to this is a total gross weight violation.

P1 Violation: The amount of gross weight that will be considered a violation for platform 1.

P2 Violation: The amount of gross weight that will be considered a violation for platform 2.

P3 Violation: The amount of gross weight that will be considered a violation for platform 3.

P4 Violation: The amount of gross weight that will be considered a violation for platform 4.

7. Local Remote Setup

This will setup local remote functionality between two indicators on serial com port two.

8. Reset Counter

This will reset the counter for trucks that have passed on the scale in SEMI mode.