



Operator's Manual

LectroCount DMS

Data Management System

**LIQUID
CONTROLS**
A Unit of IDEX Corporation



Table of Contents

Software License Agreement	3
Publication Updates and Translations.....	3

Introduction

LectroCount Data Management System	4
Specifications	6
DMS Lap Pad	7
Setup	7
Navigating the DMS Lap Pad	8
Field Edit Windows	9
List Box Windows	9
Key Pad Quick Reference	10
Data Application List	11
DMS Delivery	11
LCR Host	11
LCP File Server	11
Select Active Application List	11
Database Management	12
Send Transactions to Office	12
Retrieve Transactions from Office	12

DMS Delivery

Driver Logon	14
Select Customer	15
New Customer	16
Account Information	17
Directions	19
Presets	20
Miscellaneous Fees	21
Discounts (Cash)	22
Discounts (Volume)	23
Price and Tax	24

Delivery	25
Delivery Active	25
End of Delivery	25
Receive Payment	26

Utilities	27
Reports	28
Reprint Delivery Ticket	28
Transaction Summary Ticket	28
Route Ticket	28
Out of Gas Ticket	28
DOT Ticket	28
Reprint Shift Ticket	28
DOT	29
Inventory	30
Shift Information	31
Log Off	31
Machine Status	32
Printer Status	33
Delivery Status	34
Recirculation	35
Auxiliary Setup	36
No-Flow Timer	36
Device Not Found	37

Ticket Layouts	38
Ticket Fields	39
Ticket Addendum	40

Software Menu Maps	44
--------------------------	----

WARNING

- Before using this product, read and understand the instructions.
- Save these instructions for future reference.
- All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of equipment and/or systems in accordance with all applicable codes and ordinances.
- Failure to follow the instructions set forth in this publication could result in property damage, personal injury, or death from fire and/or explosion, or other hazards that may be associated with this type of equipment.

Software License Agreement

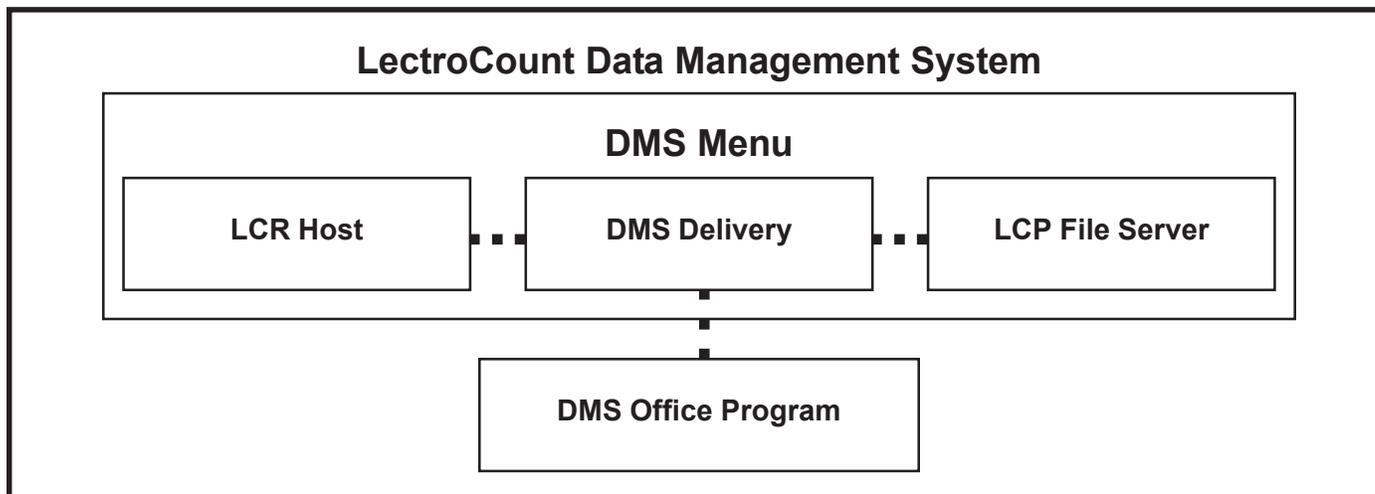
Read this license carefully. You agree that by using the itemized software package, you have agreed to the software license terms and conditions. This agreement constitutes complete and entire agreement between you and Liquid Controls with respect to this product.

1. Liquid Controls hereby grants to Licensee a nonexclusive license to use DMS Menu, LCP File Server, DMS Delivery, and LCR Host Software (hereinafter referred to as "Licensed Software")
2. Under the License granted herein, Licensee may use the itemized machine readable (executable code) copy of the Software, including any subsequent updates which may be provided. Licensee shall not, without Liquid Controls' prior written consent, (a) rent, lease, lend, sublease or otherwise transfer the materials hereunder; (b) remove or obscure proprietary or copyright notices which may be set forth on the Licensed Software; or (c) alter, decompile, or disassemble the program.
3. One (1) copy of the Licensed Software, including any software distributed on disks may be made for backup purposes only. No other copies may be made or used without the written consent of Liquid Controls.
4. Title. No title to ownership of any Licensed Software is transferred to the Licensee.
5. Upgrades. License upgrades may become available for the Licensed Software. Any cost associated with such upgrades will solely be determined by Liquid Controls.
6. Warranty. Liquid Controls makes and licensee receives no warranty express or implied and there are expressly excluded all warranties of merchantability and fitness for a particular purpose.
7. Limitation of Liability. Licensee shall have the sole responsibility for adequate protection and backup of its data in connection with the Licensed Software. In no event shall Liquid Controls be liable for (a) special, indirect or consequential damages; (b) any damages whatsoever resulting from loss of use, data, or profits, product, inaccurate input or work delays, or any direct property damage arising out of or in connection with this agreement or the use or performance of the Licensed Software.
8. Termination. Liquid Controls may terminate this software license granted hereunder and require return of the Licensed Software if Licensee fails to comply with these license terms and conditions.
9. Licensee acknowledges that it has read this agreement, understands it, and agrees to be bound by its terms, and further agrees that this is the complete and exclusive statement of the agreement between Liquid Controls and Licensee, which supersedes and merges all prior proposals, understandings, and all other agreements, oral or written, between the parties relating to this agreement. This agreement may not be modified or altered except by written instrument duly executed by both parties.
10. This Agreement and performance hereunder shall be construed and interpreted under the laws of the State of Illinois.
11. If any provision of this agreement is invalid under any applicable statute or rule of law, it is to that extent to be deemed omitted.
12. Licensee may not assign or sublicense, without the prior written consent of Liquid Controls, its rights, duties, or obligations under this Agreement to any person or entity in whole or in part.
13. The waiver or failure of Liquid Controls to exercise in any respect any right provided herein shall not be deemed a waiver of any further right hereunder.

Publication Updates and Translations

The most current English versions of all Liquid Controls publications are available on our website, www.lcmeter.com. It is the responsibility of the Local Distributor to provide the most current version of LC Manuals, Instructions, and Specification Sheets in the required language of the country, or the language of the end user to which the products are shipping . If there are questions about the language of any LC Manuals, Instructions, or Specification Sheets, please contact your Local Distributor.

Introduction



The LectroCount DMS is a “Data Management System.” Using recorded data from a metering system, the DMS receives, organizes and manipulates the data into valuable operational and accounting applications.

The system consists of a hardware component and five function specific software applications. The DMS Module, the hardware component, serves as the interface between the printer, power supply, DMS Lap Pad, and LectroCount registers. The software components of DMS include: DMS Menu, LCR Host, DMS Delivery, LCP File Server, and DMS Office Program.

This publication covers the DMS Menu and DMSDelivery applications only.

DMS Menu: Allows the operator to switch between LCR Host, DMS Delivery, and LCP File Server. DMS Menu can also transfer transactions to the office computer and receive information from the office computer.

DMS Menu instructions begin on page 11.

LCR Host: Enables the operator to setup an LCR Network, calibrate a LectroCount electronic register and meter, and make deliveries.

LCR Host instructions are in the *LectroCount DMS Setup and Operation Manual: EM200-11*.

DMS Delivery: Enables the operator to select customers from a customized list, make deliveries, record and track deliveries, review shift information, and transmit completed delivery information to the DMS Office Program using a USB flash memory device.

DMS Delivery instructions begins on page 19.

LCP File Server: Allows access to files from the DMS

Module via other computer systems in a manner similar to that of Windows® Explorer. Files on other devices that are running LCP File Server are also accessible.

LCP File Server instructions are in the *LectroCount DMS Setup and Operation Manual: EM200-11*.

DMS Office Program: This Windows® program runs on the office PC. It is used to configure the DMS Delivery application and customize delivery tickets. It also formats the data files between the back DMS Office program and the DMS Module.

DMS Office Program instructions are in the *Office Installation & Operation Manual: EM200-13*

Other LectroCount DMS publications include:

- *LectroCount DMS Installation Manual: EM200-10*
- Quick Reference Card: **500345**

A vehicle delivery system typically includes the following components:

Metering System

The metering system is typically mounted to the back or side of a delivery vehicle to measure the product being delivered. Components of this system can include the meter, electronic register, strainer, air eliminator, and control valve.

DMS Module

The DMS Module provides connections for the printer, the DMS Lap Pad, electronic registers, and a USB flash memory device. It is powered by the vehicle's battery and accessory circuit. It can be mounted to support brackets in the cab of the vehicle. These support brackets are supplied with each unit.

DMS Lap Pad

The DMS Lap Pad is the user interface device. It is used for initial set up, calibration of the system, data collection and delivery execution.

Printer

The printer prints out a record of the delivery. This ticket is typically a multi-layer ticket so one copy may be left with the customer and one retained for physical record of the delivery.



M-10 Meter with LectroCount LCR-II Electronic Register, Optical Air Eliminator, Hi Capacity Strainer, and E-7 Valve.



DMS Module



DMS Lap Pad



Epson Slip Printer

LC software is copyright protected and may not be duplicated under any circumstances without authorization from Liquid Controls. Be sure to review the software license agreement on page 3.



Support Brackets

Introduction

DMS Specifications

Enclosure

Dimensions

6.875" W x 2.625" H x 7.25" L

Material

Durable, rugged steel

Operating Voltage

+9 to 30 VDC, less than 5A

Temperature Rating

-22° to 158°F (-30° to 70°C)

Microprocessor

133 MHz, 486

Memory (Primary Hard Drive)

Internal compact flash card (CFC) memory

Vibration

2 g between 10-150 sinusoidal sweep cycle. 20 sweep cycles per axis.

Electrostatic Discharge

IEC801-2

8 kV for air discharges

6 kV for contact discharges

Electromagnetic Susceptibility

IEC 801-3

3 V/m 26-500 MHz

1 V/m 500-1000 MHz

Power Disturbances

ISO 7637 Electrical disturbance by conduction and coupling.

Part 1: Vehicles with 12 V Power Supply

Part 2: Vehicles with 24 V Power Supply

DMS Lap Pad Specifications

Housing

Lightweight, high impact, molded plastic.

Housing Rating

NEMA 3, IP54

Display

LCD, dot matrix, 240 x 64 pixels, backlit.

5.2" wide, 1.55" tall; 8 rows, 30 characters per row.

Keyboard

6 row, 5 column membrane with tactile metal dome switch contacts and silicon rubber overlay.

Supply Current

150 mA maximum

Temperature

-22°F to 158°F (-30° to 70°C)

Vibration

2 g between 10-150 sinusoidal sweep cycle. 20 sweep cycles per axis.

Electrostatic Discharge

IEC801-2

8 kV for air discharges

6 kV for contact discharges

Electromagnetic Susceptibility

IEC 801-3

3 V/m 26-500 MHz

1 V/m 500-1000 MHz

Power Disturbances

ISO 7637 Electrical disturbance by conduction and coupling.

Part 1: Vehicles with 12 V Power Supply

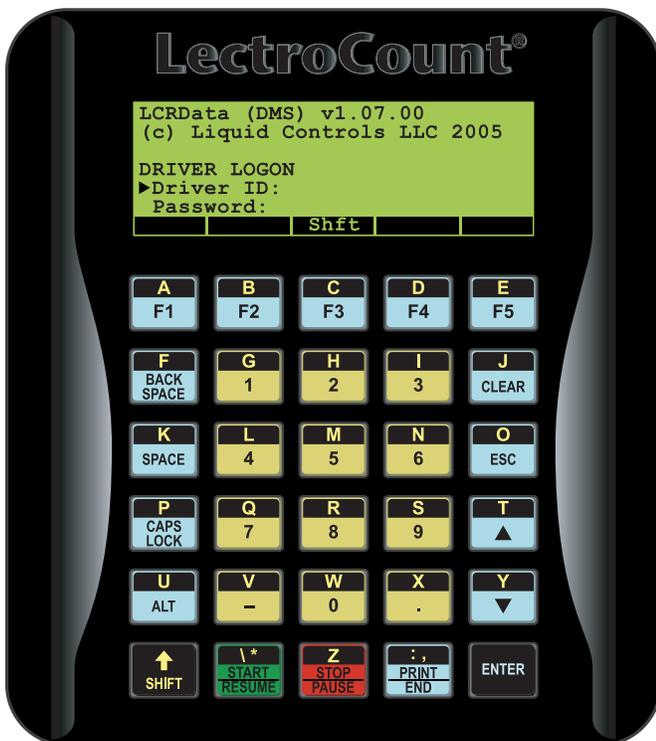
Part 2: Vehicles with 24 V Power Supply

Interface

RS-232 at 115,200 baud rate

```
DMS Lap Pad Setup v.1.00
(c) Liquid Controls LLC 2005
Adjust Contrast with ▲ and ▼
Backlight:                               On
Blink Cursor?                            Yes
Auto Repeat:                             Off
CR and LF as Graphic?                    Yes
Press ESC to exit.
```

DMS Lap Pad Setup Screen



DMS Lap Pad

DMS Lap Pad Setup

The DMS Lap Pad is the user interface device for the LectroCount DMS Module. There are various parameters that can be altered in the DMS Lap Pad Setup screen that affect its operation and its display characteristics. While this screen is loaded, the DMS Lap Pad is off line and will not communicate with the DMS Module.

To access the DMS Lap Pad Setup:

Press and hold the **ALT** and **ENTER** keys simultaneously

In the setup screen, the active field is displayed in reverse video. For example, in the sample display, **Adjust Contrast** is the active option. Pressing **ENTER** drops the active field to the next item. In the example, **Backlight** would be the next active field. From the bottom option, the active field simply wraps back to the top option.

ADJUST CONTRAST WITH ▲ AND ▼

Alters the DMS Lap Pad display for optimal viewing. The up arrow increases the contrast; the down arrow decreases the contrast. Continued pressing of either arrow will eventually wrap around to the top or bottom value depending on which arrow key is being pressed.

BACKLIGHT:

Turns the light behind the display on and off. Use either arrow key to change the setting.

BLINK CURSOR?

Switches the cursor display between solid and blinking. If set to **Yes**, the blink rate is 250 ms.

AUTO REPEAT:

Enables or disables auto repeat when a key is held down. If set to **On**, the character being held down will start to repeat after 250 ms and repeat again every 50 ms.

CR AND LF AS GRAPHIC?

This option is used to turn the CR/LF graphic on or off. When the DMS Lap Pad is used with DMS applications written by Liquid Controls, this field should be set to **Yes**. If the Lap Pad is to be used as a standard terminal device, for example, processing DOS command lines, this field should be set to **No**.

Press **ESC** to exit the DMS Lap Pad setup and reestablish communication with the host computer (DMS). The values entered will be retained each time the unit is powered up.

Introduction

Navigating the DMS Lap Pad

The DMS Lap Pad has an 8-line, 30 character per line display. The layout of the screens displayed on the DMS Lap Pad vary according to function. Each screen will have items that appear as fixed standard fields, and most screens will have fields that can be modified.

In the example screen on the right, Lines 1, 2, and 3 are fixed standard fields. The information displayed in these lines can't be changed on this screen.

Line 1: Displays the screen title, **ACCOUNT INFORMATION**, to the left and the screen count, **(2/3)**, on the right, indicating that the operator is currently on the second of three screens.

Line 2: Displays the customer account number, **1111113**, on the left, and the tank number, **2**, on the right.

Line 3: Displays the customer's name.

Lines 4-7: Display a list of options that can be selected using the ► (pointer) character. Using the up and down arrows on the DMS Lap Pad, the pointer moves up and down along the left side of the options. The **ENTER** key selects the option to the right of the pointer.

Line 8: Displays the commands assigned to the function keys (**F1 - F5**) on the top row of the DMS Lap Pad keyboard. In the example:

Util (F3) will bring up the Utilities menu

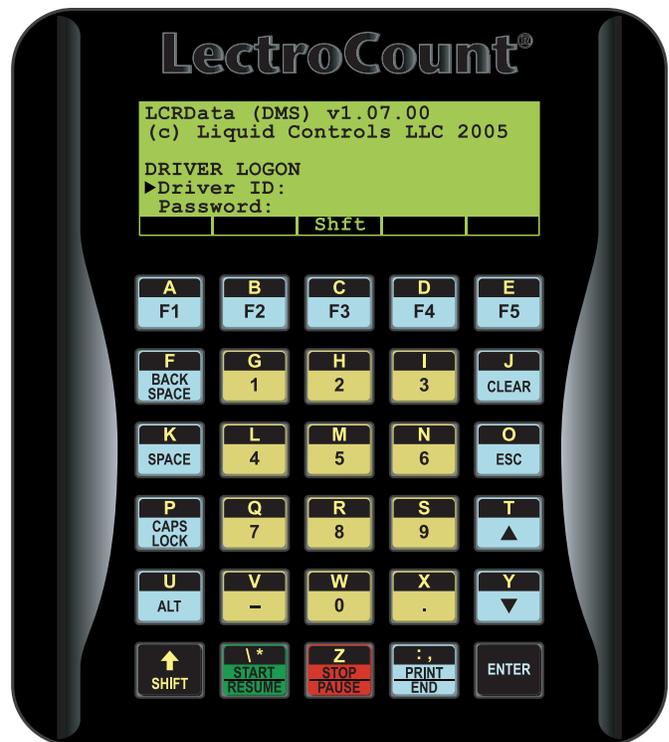
Back (F4) returns to the previous screen, ACCOUNT INFORMATION (1/3)

Fwd (F5) advances to the next screen, ACCOUNT INFORMATION (3/3).

The choices available in Line 8 will vary from screen to screen.

Line 1	ACCOUNT INFORMATION	(2/3)
Line 2	1111113	2
Line 3	Albert Constantine	
Line 4	►Presets	
Line 5	Miscellaneous Fees	\$25.00
Line 6	Discounts	0
Line 7	Price and Tax	
Line 8	Util	Back Fwd
	F1 F2 F3	F4 F5

DMS Lap Pad Display Layout

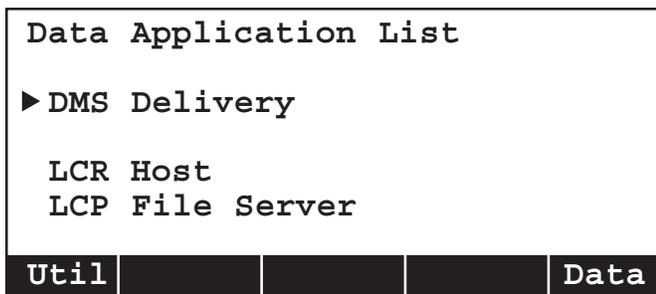


DMS Lap Pad Keyboard Layout

Introduction

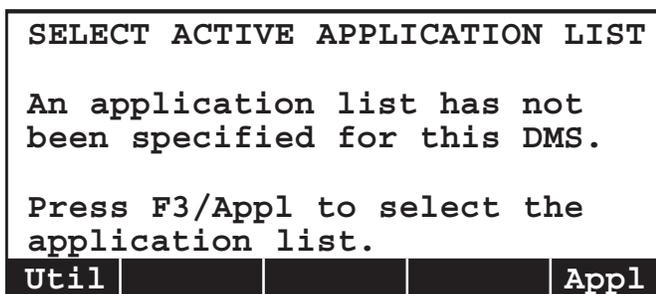
Key Pad Quick Reference

	ACCEPTS CHARACTERS KEYED INTO FIELD EDIT WINDOWS AND OPTIONS TO THE RIGHT OF THE POINTER IN LIST BOX WINDOWS AND MENU SCREENS		BEGINS A DELIVERY (FROM THE CUSTOMER ACCOUNT SCREENS), AND RESUMES PAUSED DELIVERIES		
	THIS KEY MUST BE HELD DOWN TO TYPE IN THE LETTERS AND SYMBOLS THAT APPEAR ON THE TOP OF THE KEYS		PAUSES A DELIVERY		
	EXITS FIELD EDIT AND LIST BOX WINDOWS		ENDS A DELIVERY AND PRINTS A TICKET		
	ENABLES AND DISABLES CAPITAL LETTER LOCK		ADDS A SPACE AS A CHARACTER IN FIELD EDIT WINDOWS		
	MOVES THE POINTER UP THROUGH A LIST		DELETES THE CHARACTER TO THE LEFT OF THE CURSOR AND MOVES CURSOR ONE POSITION TO THE LEFT		
	MOVES THE POINTER DOWN THROUGH A LIST		CLEAR A FIELD EDIT WINDOW		
	+		OPENS THE LAP PAD SETUP SCREEN (PG 7)		
	+		OPENS THE DATA APPLICATION LIST SCREEN (PG 11)		
					THE FUNCTION KEYS (F1-F5) APPLY THE COMMAND DISPLAYED ON THE LAP PAD WINDOW ABOVE THEM. THESE COMMANDS CHANGE WITH EACH SCREEN. THIS MANUAL WILL IDENTIFY EVERY FUNCTION COMMAND AND ITS PURPOSE SCREEN BY SCREEN



Util (F1) opens System Utilities (see Manual **EM200-11**)

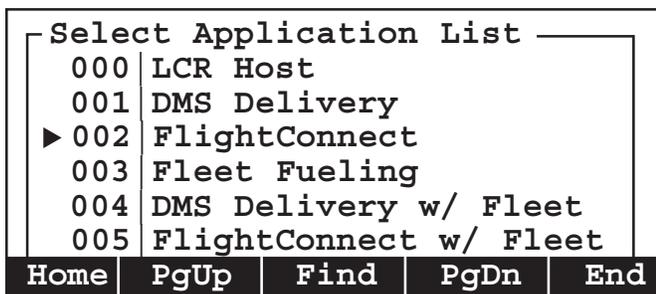
Data (F5) opens Database Management (pg 12)



Util (F1) opens System Utilities

Appl (F5) opens Select Application List (shown below)

SAAL:1



Home (F1) sends the pointer to the first item in the list

PgUp (F2) and **PgDn (F4)** scrolls forward or backward through the list by full screens

Find (F3) opens a field edit window into which parameters can be entered for a search

End (F5) jumps to the end of the list

SAAL:2

Data Application List

This screen is the main launch point for the software applications in the LectroCount DMS. There is no direct link between LCR Host, LCP File Server, and DMS Delivery. They must be accessed from this screen.

To access the Data Application List:

Hold **ALT** and press **ESC**

OR

Exit (F5) from the System Utilities screens (see Manual **EM200-11**)

DMS DELIVERY

With this application, you can select customers from a customized list, make deliveries, record and track deliveries, review shift information, and transfer completed delivery information to the DMS office program using the USB flash memory device.

DMS Delivery instructions begins on page 13.

LCR HOST

With this application, you can setup an LCR Network, setup and calibrate a LectroCount register and meter, and make deliveries.

The LCR Host application is covered in publication **EM200-11**.

LCP FILE SERVER

This application provides access to the hard drive of the DMS interface from other computer systems.

The LCP File Server application is covered in publication **EM200-11**.

Select Active Application List

If file DMSAppl.slf does not exist, the Data Application List screen can not open. Instead, the Select Active Application List (SAAL:1) will open in the display. **Appl (F5)** opens list box window Select Application List (SAAL:2), and from this list you can choose a software application.

DMS Delivery Application

Driver Logon

Start Up

When the vehicle is turned on, the program will launch the DMS Delivery application. The display will then open the Driver Logon screen (shown on the right).

If the Select Customer screen (pg 15) opens instead, the previous driver must be logged out before you can access the this screen.

To log out and access Driver Logon:

Util (F3) opens Utilities (pg 27)

Select **Log Off** or **View Shift Information** to open Shift Information (pg 31)

Save (F5) opens Database Management (pg 12)

Select **Send Transactions to Office** to save the previous shift to the USB and open Driver Logon
The file transfer may be lengthy. Please be patient.

Done (F5) opens Driver Logon

Drivers can only be entered and removed using the DMS Office program. If no drivers are entered, DMS Delivery will not display the Driver Logon screen (see publication **EM200-13**).

Driver Logon

Allows you to log on for a new shift.

DRIVER ID:

Opens a list box window of drivers and their ID numbers (DL:1). Select your **Driver ID**. DMS will then prompt you to enter a **Password**, or if no password is required, it will open the Select Customer screen (pg 15).

PASSWORD:

This option will only appear if enacted by the office computer. If enacted (DL:2), select **Password** and enter the password into the field edit window (DL:3). The password is case sensitive. This means that letters originally entered as capitals must be reentered as capitals, for instance, if the password is "Ab123", then entering "ab123" is not correct.

If the password is not known, you can not log on. If the password is entered correctly, the Select Customer screen (pg 15) will open.

The USB memory device should not be removed while sending or receiving data. If inserted while the DMS Module is on, open the Database Management screen and refresh the USB memory device by pushing USB (F3).

```
LCRData (DMS) v1.00
(c)Liquid Controls LLC 2005

DRIVER LOGON
▶ Driver ID:

Home Shift Data
```

Shift (F3) reprints the ticket from the previous shift

Data (F5) advances to Database Management (pg 11)
It is recommended that the updated records on the USB memory device be loaded to the DMS Module prior to making deliveries

```
Driver ID
▶ A123456 :Alberts
  B123457 :Burns
  B123458 :Barlowe
  C123459 :Curtiline
  D123460 :Darrow
  M123461 :Manicotti

Home PgUp Find PgDn End
```

DL:1

```
LCRData (DMS) v1.00
(c)Liquid Controls LLC 2005

DRIVER LOGON
Driver ID:      B123458 Barlowe
▶ Password:

Home Shift Data
```

DL:2

```
LCRData (DMS) v1.00
(c)Liquid Controls LLC 2005

Password
| B45854_ |

Home <- - Ins -> -> End
```

DL:3

```
SELECT CUSTOMER          09:28:42

▶ Access #:              1111110
  Name:      Abernathy Theodore
  Account #:              RZ11234

Util | New | Fwd
```

Util (F3) opens to Utilities menu (pg 27)

New (F4) opens New Customer (pg 16)

Fwd (F5) advances to Account Information (pg 17)

START/RESUME begins delivery (pg 25)

STOP/PAUSE pauses delivery (pg 25)

PRINT/END ends delivery (pg 25)

Product can be delivered from this screen using the **START/RESUME**, **STOP/PAUSE**, and **PRINT/END** keys on the DMS Lap Pad.

```
Access
1111111 :Anderson Alan
1111112 :Bartlett Bill
▶ 1111113 :Constantine Ch
1111114 :Curtis Carmen
1111115 :Folbert Frank
1111116 :Gandle George

Home | PgUp | Find | PgDn | End
```

SC:1

```
Customer Name
Anderson, Alan
Bartlett, Bill
▶ Constantine, Chaz
Curtis, Carmen
Folbert, Frank
Gandle, George

Home | PgUp | Find | PgDn | End
```

SC:2

THROUGHOUT THE REMAINDER OF THE DMS DELIVERY SECTION, IT WILL BE ASSUMED THE USER CAN NAVIGATE FIELD EDIT AND LIST BOX WINDOWS. SEE PAGE 9 FOR INSTRUCTIONS.

Select Customer

The Select Customer screen allows you to open a customer account by access, name or account number.

When this screen is opened, the previous customer's account will appear on the display.

Select **Access #**, to open a list box window of customers arranged by access number (SC:1). Select **Name**, to open a list box window of customers arranged by name (SC:2). Select **Account #**, to open a list box window of customers arranged by account number.

Once the correct customer is displayed on the Select Customer screen, press (**F5**) to advance to the first screen of Account Information (pg 17).

ACCESS # & ACCOUNT

Customer accounts can be given both an Access # and an Account # by the DMS Office program. A customer account might not have an Account #, but it should have an Access #. The Access # is the data key that binds each account's records together. Both values must be unique to the account, although they can share a value.

New Customer

New Customer

The New Customer screen is used to make a delivery to a customer that does not currently exist in the data base.

ACCESS

Select **Access #** and enter a unique number into the field edit window. If the access number entered already exists, the program will not accept it and a new one must be entered. The access number can be an alpha-numeric value up to 12 characters in length.

PRODUCT

Select **Product** to open a list box window of all available product codes. Then select the product code for the new account.

When the product code is selected, **Price and Tax** will default to the values associated with the product code. **Miscellaneous Fees** will default to **\$0.00**, **Discounts** will default to **0** (blank) and **Presets** will default to no preset (blank).

To change these options, select:

Price and Tax (page 18)

Miscellaneous Fees (page 21)

Discounts (page 22,23)

Presets (page 20)

Once the fields for **New Customer** have been configured, press **START/RESUME** on the DMS Lap Pad to start delivery.

NEW CUSTOMER				
▶ Access #:				
Product:				
Price and Tax				
Miscellaneous Fees				\$0.00
Discounts				0
Presets				
		Util	Back	

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Select Customer (pg 15)

START/RESUME begins delivery (pg 25)

STOP/PAUSE pauses delivery (pg 25)

PRINT/END ends delivery (pg 25)

Product can be delivered from this screen using the **START/RESUME**, **STOP/PAUSE**, and **PRINT/END** keys on the DMS Lap Pad.

ACCOUNT INFORMATION	(1/3)			
1111113	2			
Constantine Albert				
123 Main Street				
Lenexa, KS 75461				
▶ Product 2	Inv 1000			
\$ 2.4079/gallon	2			
Next	Prev	Util	Back	Fwd

- Next (F1)** switches product to next available type
- Prev (F2)** returns to the product displayed previously
- Util (F3)** opens to Utilities menu (pg 27)
- Back (F4)** returns to Select Customer (pg 15)
- Fwd (F5)** advances to the Account Information 2/3 (pg 18)
- START/RESUME** begins delivery (pg 25)
- STOP/PAUSE** pauses delivery (pg 25)
- PRINT/END** ends delivery (pg 25)

Product can be delivered from this screen using the **START/RESUME**, **STOP/PAUSE**, and **PRINT/END** keys on the DMS Lap Pad.

Account Information (1/3)

The first Account Information screen contains detailed information about the selected account, an option to choose product and an option to enter price.

To access Account Information:

Fwd (F5) from the Select Customer screen (pg 15)

PRODUCT

There are two ways to change the product (**Product 2**, Line 6) in the display. **Next (F1)** and **Prev (F2)** will move forward and backwards through the product codes available in your DMS Module, or you can select **Product** to open a list box window of all the available product codes. Each time a new product is selected the tank ID number (**2**, right side of Line 2), the Inventory (**Inv 1000**, right side of Line 6), and the price (**2.4079/gallon**, Line 7) will all change according to the preset product code defaults.

Product options are configured using the DMS Office program (see publication **EM200-13**).

PRICE

Although the office computer assigns a default price for each product, it is possible to change the price per unit. Select the price (**\$2.4079/gallon**) to open a field edit window. Enter the new price per unit (excluding the \$ sign) and press **ENTER** to accept. Price/Unit can have a value from **-99.9999** to **99.9999**.

Account Information

Account Information (2/3)

The second Account Information screen provides four options for delivering product.

PRESETS

Defines the presets for the current delivery. Select **Presets** to advance to the Select Preset screen (pg 20) and enter preset parameters.

MISCELLANEOUS FEES

Defines any miscellaneous fees associated with the current delivery. This field will display the sum of all miscellaneous fees (up to three). Select **Miscellaneous Fees** to advance to the Miscellaneous Fees screen (pg 21) and choose the fees.

DISCOUNTS

DMS Delivery can apply different discounts to specific deliveries. The discount code for the current account is displayed to the right of this option. Select **Discounts** to advance to Discounts (Cash) (pg 22).

If no discounts have been set up using the DMS Office program, no information will appear in this

PRICE AND TAX

Although the office computer assigns a default price for each product and configures the tax structures, it is possible to change the price per unit and alter specific taxes. Select **Price and Tax** to advance to the Price and Tax screen (pg 24).

ACCOUNT INFORMATION	(2/3)			
1111113		2		
Albert Constantine				
▶Presets				
Miscellaneous Fees	\$25.00			
Discounts		0		
Price and Tax				
		Util	Back	Fwd

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Account Information 1/3 (pg 17)

Fwd (F5) advances to Account Information 3/3 (pg 19)

START/RESUME begins delivery (pg 25)

STOP/PAUSE pauses delivery (pg 25)

PRINT/END ends delivery (pg 25)

Product can be delivered from this screen using the **START/RESUME**, **STOP/PAUSE**, and **PRINT/END** keys on the DMS Lap Pad.

Account Information

Select Preset

The Select Preset screen allows you to stop the next delivery at a predetermined amount of product or final price.

PRODUCT CODE

Opens a list box window (SP:1) of product descriptions and their corresponding code numbers.

Product codes are configured using the DMS Office program and not editable in DMS Delivery.

PRESET TYPE

Opens a list box window with these options:

Clear: This option clears the preset value after each delivery. The operator must enter a preset amount prior to each delivery.

Multiple: This option pauses the delivery when the preset value is reached. The delivery can then be started again using the same preset value. It will continue to pause each time the preset value is reached until **PRINT/END** is pressed and the delivery is completed. When the delivery is completed, the preset amount will clear. If the No-Flow Timer times out during a pause, the delivery will end and a ticket will print out.

Inventory: This option is similar to the Multiple option with the exception that the preset value is not reset after the first pause. This option is typically used to monitor the inventory on the delivery vehicle.

Retain: This option is just like the Clear option, except the preset value is not cleared. The retain value will reflect the last programmed preset value. If a Gross preset is set to "100" gallons, it will reset to "100" gallons at the end of each delivery, until it is changed by the operator.

NET

Opens a field edit window where you can enter a preset delivery based on net volume. If the preset delivery is a temperature compensated delivery, set your preset value with this option.

GROSS

Opens a field edit window where you can enter a preset delivery based on gross volume. If the delivery is not temperature compensated, set your preset value with this option.

Net and Gross are only displayed if enabled by LCR Host.

PRICE

Opens a field edit window where you can enter a preset delivery based on total price.

SELECT PRESET	
▶ Product #: 1	Gallons
Product Code:	02
Preset Type:	CLEAR
Net:	0.0
Gross	00.0
Price:	\$ 0.00
Util Back	

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Account Information 2/3 (pg 18)

SELECT PRESET	
Product #: 1	Gallons
Product Number	
▶ 1 Heating Oil 1	
2 Gasoline	
3 Heating Oil 2	
4 Diesel Fuel	
Home	<--
Ins	-->
End	

SP:1

<u>Decimal</u>	<u>Range</u>
Whole	0 to 10,000,000
Tenths	0.0 to 1,000,000.0
Hundreths	0.00 to 100,000.00

SP:2 Net and Gross Value Ranges

The volume delivered with a Price preset may not translate into the exact amount, but it will never exceed it. For instance, if a preset of "200.00" is entered and the price per unit volume is "1.27", the gross volume delivery is $\$200.00 \div \$1.27 = 157.48031$. If the decimal setting is whole, a delivery of $157 \times \$1.27 = \199.39 and a delivery of $158 \times \$1.27 = \200.66 . DMS will take the price under \$200.00.

MISCELLANEOUS FEES				
▶ Code:				
Miscellaneous Fee \$: \$ 0.00				
Tax Code:				
Name:				
Next	Prev	Util	Back	Save

Next (F1) scrolls forward through transaction code options

Prev (F2) scrolls backwards through transaction code options

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Account Information 2/3 (pg 18)

Save (F5) creates a separate miscellaneous transaction record, prints the ticket, and opens Receive Payment (pg 26)

Miscellaneous Fees

The Miscellaneous Fees screen is used to select or define any miscellaneous transaction fees.

CODE

This option opens a list box window of codes assigned to specific transactions and their descriptions. When a transaction code is selected, the values for **Miscellaneous Fee**, **Tax Code**, and **Name** will change according to each specific code. If no codes are found in the list, the fields will remain blank.

Codes are configured using the DMS Office program and not editable in DMS Delivery.

MISCELLANEOUS FEES

This option allows you to add a fee, but it will not be taxed, and it can not be named. Select **Miscellaneous Fees** to open a field edit window where you can enter the amount of a miscellaneous transaction fee in the range **-999.99** to **999.99**. The fee will apply to the next delivery only.

TAX CODE

This option opens a list box window of tax codes. The tax codes, when selected, are applied to the transaction code chosen with the **Code** option. Tax codes are configured with the DMS Office program and are not editable in DMS Delivery.

NAME

This field is a description of the transaction code. If a transaction code is not selected, this field will remain blank.

The value for this option can also change according to the fee selected in the **Code** option.

DMS Delivery can create a miscellaneous transaction record separate from the delivery. **Print (F5)** will print a ticket for the transaction and open the Receive Payment screen (pg 26).

Account Information

Discount (Cash)

The Discount (Cash) screen is used to select a cash discount for the next delivery.

CASH CODE

This option opens a list box window of cash discount codes. When a cash code is selected, **Days** (the number of days the discount is available), **Discount %**, and **Discount per unit** will change according to the cash codes configuration. If no codes are found in the list, the fields will remain blank.

Codes are configured using the DMS Office program and not editable in DMS Delivery.

DISCOUNT (CASH)		(1/2)		
▶ Cash Code:		0		
Days:		0		
Discount %:		0.0000		
Discount per unit:		0.0000		
Next	Prev	Util	Back	Fwd

Next (F1) scrolls forward through transaction code options

Prev (F2) scrolls backwards through transaction code options

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Account Information 2/3 (pg 18)

Fwd (F5) advances to Discount (Volume)

DISCOUNT (VOLUME)		(2/2)
► Volume Code:		0
Level		Rate
0.0 Gallons		\$ 0.0000
0.0 Gallons		\$ 0.0000
0.0 Gallons		\$ 0.0000
		Util Back

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Account Information 2/3 (pg 18)

DISCOUNT (VOLUME)		(2/2)
Volume Code		Code V3
Level		Rate
► 100 Gallons:		\$ 0.1000
200 Gallons:		\$ 0.2000
300 Gallons:		\$ 0.3000
		Util Back

DV:1

*Discount (Volume)

The Discount (Volume) screen is used to select a set of preconfigured discounts which are applied based on delivered volume. Each set (Volume Code) can have three different discounts with a quantity and a corresponding rate (DV:1). If a delivery exceeds a specified quantity, the corresponding discount rate is applied to the final charge.

VOLUME CODE

Opens a list box window of volume codes. Each code has a unique set of levels and rates that can be applied to the next delivery. After a volume code is selected, the **Level** and **Rate** fields will update based on the volume code selected. If no codes are found in the list, the fields will remain blank.

Codes are configured using the DMS Office program and not editable in DMS Delivery.

If the volume delivered is lower than any of the volume levels, no discount will be applied.

* Not available as of 11-01-2006

Account Information

Price and Tax

The Price and Tax screen is used to select the pricing and tax structure for the next delivery.

PRICE PER GALLON

Opens a field edit window where you can enter a new (or change the existing) price per gallon for the next delivery.

TAX CODE

Opens a list box window of available tax codes. A tax code is a framework of taxes that can be applied to customers. If no codes are found on the list, the field will remain blank. New tax codes can only be added by the DMS Office program.

Existing customers should have a tax code assigned to their account, and a code can be applied to new customers using the **Tax Code** option.

VIEW TAX APPLIED

This field displays one of the individual taxes included in the selected tax code. The reference number (or name) of the individual tax is displayed on the right. To scroll through the individual taxes, use **Next (F1)** and **Prev (F2)**.

(Type of tax) and **(Description of the tax)** will change according to the office computer's configuration of the tax.

(TYPE OF TAX)

Contains a type of the tax selected and the value or rate of that tax. Common types of taxes are: Percent Tax, Per Unit Tax, Tax on Tax, and Flat Fee.

To change the rate of a tax, select **(Type of tax)** to open a field edit window. Rates will return to their defaults after the next delivery.

(DESCRIPTION OF TAX)

This field displays the description of the individual tax shown in **View Tax Applied**. The description is configured by the office computer, and can not be modified.

PRICE AND TAX			
►Price per gallon:			0.0000
Tax Code:			100
View Tax Applied:			1000
(Type of tax)			0.0000
(Description of the tax)			
Next	Prev	Util	Back

Next (F1) scrolls forward through Tax Applied according to selected Tax Code

Prev (F2) scrolls backwards through Tax Applied according to selected Tax Code

Util (F3) opens to Utilities menu (pg 27)

Back (F4) returns to Select Customer (pg 15)

DELIVERY ACTIVE		14:32:41
#1 2	Gallons	45.8
PRESETS -----		
LCR	Net	Gross
1	60.0	60.0
Status		

Status (F3) opens Machine Status (pg 32)

STOP/PAUSE pauses delivery

PRINT/END ends delivery

Delivery Active

When DMS Delivery is in an Account Information screen or the New Customer screen, pressing **START/RESUME** will begin the delivery sequence. The LectroCount register will perform required tests and then activate a control valve (if employed). The DMS Lap Pad will then open the screen shown to the left.

During delivery, the Delivery Active screen displays the active LCR (**#1**), the product code (**2**), the units of volume (**Gallons**) and the amount pumped (**45.8**), in Line 2. Line 7 will display the LectroCount node address (**1**), and the running net (**60.0**) and gross volume (**60.0**).

When a delivery is finished, the screen will advance to the End Delivery screen shown to the lower left. A delivery completes by reaching the preset delivery value, pressing **STOP/END** on the DMS Lap Pad, pressing **PRINT/END** (this prints a delivery ticket), or turning the LectroCount selector switch from **RUN** to **PRINT** (this also prints a delivery ticket).

The LectroCount selector switch is typically left in the **RUN** position when operated with a DMS system and is usually not used to end a delivery.

END OF DELIVERY	
Percent Full	
► Receive Payment	
End Use Code	
Status	Done

Status (F3) opens Machine Status (pg 32)

Done (F5) saves the delivery, prints the remainder of the ticket, and returns to Select Customer (pg 15)

End of Delivery

This screen has three options available to facilitate the completion of your delivery.

PERCENT FULL

This option opens a field edit window where you can record the amount of product in the tank, in terms of percentage. After the percentage is entered, the display returns to the End of Delivery screen.

RECEIVE PAYMENT

This option opens the Receive Payment screen (pg 26). The Receive Payment screen displays a small ledger where method of payment and amount of payments can be recorded.

END USE CODE

This option is a generic notepad where you can enter information to be printed on the ticket or passed along to the office computer.

If no further action is required to complete the delivery, press **Done (F5)**. This saves the delivery record, prints the remainder of the ticket, and returns to the Select Customer screen (pg 15).

Delivery

Receive Payment

The Receive Payment screen is used to account for payment received immediately after a delivery is received. The screen displays the previous balance (**Acct Balance**), the past month's charges (***Over 30 Days**), the amount of the current delivery (**Today's Charge**), and the sum of all the credits and debits (**Net Balance**).

The Receive Payment screen can be accessed from two screens:

Select **Receive Payment** from End of Delivery (pg 25)

OR

Select **Receive Payment** from the Utilities menu (pg 27)

*DISCOUNT

Opens a field edit window where you can enter discounts that apply to the current delivery.

RECEIVED

Opens a field edit window where you can enter the amount of the payment received for the current delivery. After the amount is entered, a list box will open with three options: **Cash**, **Check**, or **Credit**.

RECEIVE PAYMENT		
Acct Balance:	\$	150.00
Over 30 Days:	\$	0.00
Today's Charge:	\$	225.00
► Discount:	\$	10.00
Received:	\$	250.00
Net Balance:	\$	115.00
	Util	Back Save

Util (F3) opens Utilities menu (pg 27)

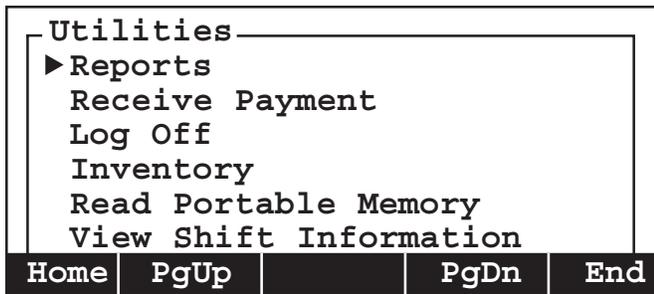
This option is only available if the screen was accessed through the Utilities menu

Back (F4) returns to End of Delivery (pg 25)

If the screen was accessed through the Utilities Menu, the screen will return to Select Customer (pg 15)

Save (F5) prints ticket and returns to Select Customer (pg 15)

* Not available as of 11-01-2006



Home (F1) moves the pointer to the first item in the menu

PgUp (F2) and **PgDn (F4)** jump forward or backward through the list by full screens

End (F5) moves the pointer to the last item in the menu

Utilities

The Utilities screen displays a list box window that provides access to additional DMS Delivery options.

The Utilities menu includes:

Reports (pg 28)

Receive Payment (pg 26)

Log Off (pg 31)

Inventory (pg 30)

Read Portable Memory (pg 12)

View Shift Information (pg 31)

Status (pg 32)

Version (see Manual **EM200-11**)

***Recirculation** (pg 35)

***Auxiliary Setup** (pg 36)

* Not available as of 11-01-2006

Utilities

Reports

The Reports screen allows you to print six different reports.

Reprint Delivery Ticket

***Transaction Summary Ticket**

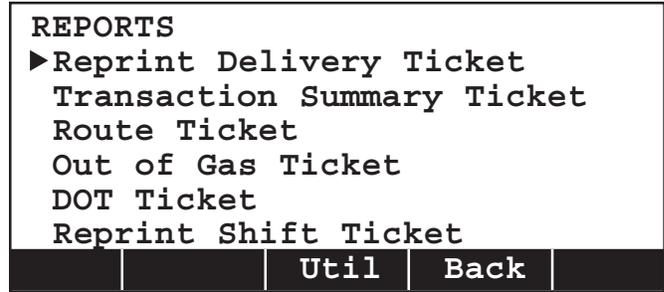
***Route Ticket**

***Out of Gas Ticket**

***DOT Ticket**

Reprint Shift Ticket

* *Not available as of 11-01-2006*



Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to customer account screen (pgs 15-24)

*Out of Gas Ticket

The Out of Gas Ticket screen is used to generate a report ticket indicating that a tank is out of gas.

TANK ID

Opens a list box window of all tank identification numbers currently loaded in the data base for the selected account.

REFERENCE

Opens a field edit window where you can enter a reference code (alpha-numeric, 11 character max.) for the selected tank.

TRANSACTION CODE

Opens a field edit window where you can enter a transaction code (alpha-numeric, 12 characters max).

TEMPERATURE

Opens a field edit window where you can enter the temperature of the product delivered to the tank.

PSI

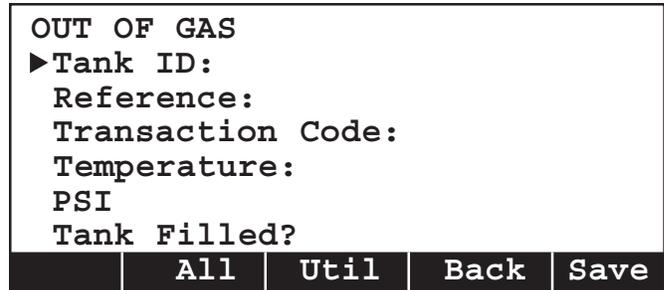
Opens a field edit window where you can enter the pressure reading of the tank.

TANK FILLED?

Opens a list box window with the options **Yes** and **No**.

To save and print this record, press **Save (F5)**.

* *Not available as of 11-01-2006*



All (F2) advances automatically through all the options and prompts you for entries or selections

Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to customer account screen (pgs 15-24)

Save (F5) saves and prints record

DOT				(1/3)
Engine?				
Transmission?				
Clutch?				
Steering Mechanism?				
Horn?				
Windshield?				
	All	Util	Back	Fwd

All (F2) advances automatically through all the options and prompts you for entries or selections

Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to customer account screen (pgs 15-24)

Fwd (F5) advances to DOT (2/3)

DOT				(2/3)
Rear Vision Mirrors?				
Lights / Reflectors?				
Parking Brakes?				
Service Brakes?				
Tires?				
Wheels and Rims?				
		Util	Back	Fwd

Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to DOT (1/3)

Fwd (F5) advance to DOT (3/3)

DOT				(3/3)
Emergency Equipment?				
ERS Test at 150 ft?				
Truck Condition OK?				
Print Ticket?				
		Util	Back	Save

Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to DOT (2/3)

Save (F5) saves and prints DOT record

*DOT

The three **DOT** screens are comprised of a vehicle inspection check list. Each item appearing on these screens will open a list box window with the options **No** and **Yes**. Selecting **Yes** will indicate that the particular item has been checked. Selecting **No** will indicate that the item has not been checked.

PRINT TICKET?

The last option on the list, **Print Ticket?** will print a ticket of the DOT record upon saving and exiting the screen.

* Not available as of 11-01-2006

Utilities

Inventory

The Inventory screen is used to alter and display current product inventory.

PRODUCT CODE

Opens a list box window where you can select from a list of product codes. When the Product Code is changed, the first three lines will change to describe the displayed product.

INVENTORY

Opens a field edit window where you can add or subtract from the selected product's inventory volume. Enter a value in the range based on the criteria shown on the right.

INVENTORY	
Product #: 1	Gallons
Description: Unleaded Gasoline	
Fuel Type: Gasoline	
▶Product Code: 1	
Inventory: 0.0	
Util Back	

Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to customer account screen (pgs 15-24)

<u>Decimal Setting</u>	<u>Range</u>
Whole	0 to 99,999,999
Tenths	0.0 to 99,999,999.9
Hundreths	0.00 to 99,999,999.99

SP:2 Inventory Value Ranges

The values of the Inventory screen will be overwritten each time files from the office computer are loaded into the DMS Module.

SHIFT INFORMATION	
Shift Start:	08/08/05 10:25:18
▶Product:	Gasoline
Deliveries:	15
Gross Qty:	1250.5
Net Qty:	1208.7
Payment Received	\$ 565.45
	Util Back Save

Util (F3) returns to Utilities menu (pg 27)

Back (F4) returns to customer account screen (pgs 15-24)

Save (F5) logs off current driver, save transactions to the USB device, prints a shift ticket, and returns to Drivers Logon (pg 14)

Shift Information

The Shift Information screen displays the details of the current shift, and gives you the option of logging off and printing a shift ticket.

PRODUCT

Opens a list box window of products that were delivered during the present shift. After you select a product, the displays for **Deliveries**, **Gross Qty**, **Net Qty**, and **Payment Received** will reflect the shift totals for the selected product.

DELIVERIES

Displays the total number of deliveries made during the shift for the selected product.

GROSS QTY

Displays the gross, uncompensated amount of the selected product delivered during the shift.

NET QTY

Displays the net, temperature compensated amount of the selected product delivered during the shift.

PAYMENT RECEIVED

Displays the total payments received during the shift for the selected product.

Log Off

If the shift is over and you need to log off and print a shift ticket, press **Save (F5)**. The completed shift transactions will be saved to the USB flash memory device and the display will return to the Driver Logon screen (pg 14).

Utilities

Machine Status

The Machine Status screen displays a report of the current system conditions, and provides access to the Printer Status screen (pg 33) and the Delivery Status screen (pg 34).

STATE

Reports the current state of the LCR. The display will show one of the following indicators:

- Run
- Stop
- End Delivery
- Auxiliary
- Shift
- Calibrate
- Waiting for No-Flow
- Unknown

PRINTING?

If the printer is active, the display will read **Yes**. If the printer is idle, the display will read **No**.

OTHER ERRORS

If there are errors reported by the LCR, this field will display **Yes**.

PRINTER STATUS

Opens the Printer Status screen (pg 33).

DELIVERY STATUS

Opens the Delivery Status screen (pg 34).

MACHINE STATUS	1
State:	End delivery
Printing?	No
Other Errors?	No
▶Printer Status	
Delivery Status	
	Back

Back (F4) returns to customer account screen (pgs 15-24)

PRINTER STATUS	(1/2)	1
Delivery Ticket?		No
Shift Ticket?		No
Diagnostic Ticket?		No
Pass-Through Ticket?		No
	Back	Fwd

Back (F4) returns to customer account screen (pgs 15-24)

Fwd (F5) advances to Printer Status (2/2)

PRINTER STATUS	(2/2)	1
Printer Error?		No
Printer Busy?		No
	Back	

Back (F4) returns to Printer Status (1/2)

Printer Status

In all cases, the printer status fields will display either **Yes** or **No**. If **Yes** appears by a field, then the printer is currently executing that function. For instance, while a delivery ticket is being printed, **Printer Busy?** will change to **Yes**.

DELIVERY TICKET

Reports a requested Delivery Ticket.

SHIFT TICKET

Reports a requested Shift Ticket.

DIAGNOSTIC TICKET

Reports a requested Diagnostic Ticket.

PASS-THROUGH PRINT

Reports a line of text has been given to the LectroCount from the host computer.

PRINTER ERROR

Reports an error detected with the printer.

PRINTER BUSY

Reports the print processor is printing a ticket.

Utilities

Delivery Status

The Delivery Status screen displays sixteen different checks on the delivery system. If a delivery fails, you can use this screen to troubleshoot.

ROM CHECK SUM

Delivery not started. Checksum of the LectroCount program code space failing.

TEMPERATURE

Delivery not started or terminated. Error detected with the temperature reading hardware.

WATCHDOG

Processor reset due to a LectroCount watchdog timeout error.

VCF SETUP

Error setting up the volume compensation factor for the current product.

VCF DOMAIN

Temperature of the product being delivered is outside the valid range for the compensation type of the product.

METER CALIBRATION

Error occurred while setting up the meter calibration for the current delivery.

PULSER FAILURE

Delivery terminated. Too many pulser faults.

PRESET STOP

Gross or net preset volume has been reached.

NO-FLOW STOP

Delivery terminated. No-flow detected through the meter for a specified amount of time.

STOP/PAUSE REQUEST

STOP/PAUSE key pressed during an active delivery.

PRINT/END REQUEST

PRINT/END key pressed during an active delivery.

POWER FAILURE

Delivery ended. Power fail condition for more than 15 seconds.

PRESET ERROR

Delivery ended. An error condition present while attempting to set up a gross or net preset.

RS-232 DMS LAP PAD

The RS-232 DMS Lap Pad has been disconnected from the LectroCount during an active delivery.

PRINTER

Current delivery requires a ticket to be printed, and the printer is either off-line or busy.

DATA ACCESS

A data access error, critical to the delivery, occurred during a delivery.

DELIVERY STATUS	(1/4)	1
ROM Check Sum?		No
Temperature?		No
Watchdog?		No
VCF Setup?		No
		Back Fwd

Back (F4) returns to customer account screen (pgs 15-24)

Fwd (F5) advances to Delivery Status (2/4)

DELIVERY STATUS	(2/4)	1
VCF Domain?		No
Meter Calibration?		No
Pulser Failure?		No
Preset Stop?		No
		Back Fwd

Back (F4) returns to Delivery Status (1/4)

Fwd (F5) advances to Delivery Status (3/4)

DELIVERY STATUS	(3/4)	1
No-Flow Stop?		No
Stop/Pause Request?		No
Print/End Request?		No
Power Failure?		No
		Back Fwd

Back (F4) returns to Delivery Status (2/4)

Fwd (F5) advances to Delivery Status (4/4)

DELIVERY STATUS	(4/4)	1
Preset Error?		No
RS-232 DMS Lap Pad?		No
Printer?		No
Data Access?		No
		Back

Back (F4) returns to Delivery Status (3/4)

RECIRCULATION		10:03:42	
▶G104	LCR#1		1
Net Gallons:			00.0
LCR#	Status	Back	

LCR# (F1) adds an LCR to the display

Status (F3) advances to the Machine Status screen (pg 32)

Back (F4) returns to customer account screen (pgs 15-24)

*Recirculation

The **Recirculation** screen monitors the volume of product being recirculated.

G104 represents the product code. To change the product code, select **G104** to open a list box window of available product codes.

The value to the right of **Net Gallons** represents the recirculation volume. The recirculation volume always starts at **0.0** and shows the running volume circulated.

DMS Delivery can display up to three LCRs on this screen. For a network with more than one LCR, press **LCR# (F1)** to select another LCR.

RECIRCULATION		10:03:42	
▶G104	LCR#1		1
Net Gallons:			00.0
G105	LCR#2		2
Net Gallons:			00.0
LCR#	Status	Back	

LCR# (F1) adds an LCR to the display

Status (F3) advances to the Machine Status screen (pg 32)

Back (F4) returns to customer account screen (pgs 15-24)

RECIRCULATION		10:03:42	
▶G104	LCR#1		1
Net Gallons:			00.0
G105	LCR#2		2
Net Gallons:			00.0
HH088	LCR#3		3
Net Gallons:			00.0
LCR#	Status	Back	

LCR# (F1) adds an LCR to the display

Status (F3) advances to the Machine Status screen (pg 32)

Back (F4) returns to customer account screen (pgs 15-24)

* Not available as of 11-01-2006

Utilities

*Auxiliary Setup

The Auxiliary Setup screen is used to define actions for the auxiliary outputs during the delivery. It also has an option to change the setting of the No-Flow Timer.

*PRODUCT

Opens a list box window of available product codes.

*AUX1

Open a list box window with the options:

Monitor Flow Rate: This option activates auxiliary 1 at the beginning of each delivery. If the flow rate during the delivery meets or exceeds 40 gpm, auxiliary 1 will deactivate. This option is typically used to monitor the amount of restriction in a strainer basket or filter in order to discover clogs.

Off: This option deactivates auxiliary 1.

On: This option activates auxiliary 1. It remains activated even when a delivery is not taking place.

On During Delivery: This option activates the auxiliary output only when the system is in an active delivery, and prints header line 11 on the ticket.

*AUX2

Open a list box window with the options:

Flow Direction: This option indicates the flow direction through the flow meter.

Off, On, On During Delivery: All these are defined in **Aux1** above. If set to **On During Delivery**, header line 12 will print on the ticket.

NO-FLOW TIMER

Opens a field box window where you can enter a value between 0 and 3600 seconds. If there is no flow through the meter over a set amount of time, the timer will end the delivery. If this value is set to 0, then each delivery ticket will contain the text "MULTIPLE DELIVERIES AT ONE SITE".

AUXILIARY SETUP	
▶ Product	G102
	Unleaded Gasoline
Aux1:	On During Delivery
Aux2:	Flow Direction
No-Flow Timer	180
Next	Prev
Status	Back

Next (F1) scrolls forward through product codes

Prev (F2) scrolls backwards through product codes

Status (F3) advances to the Machine Status screen (pg 32)

Back (F4) returns to customer account screen (pgs 15-24)

* Not available as of 11-01-2006

Ticket Layout

Tickets

```

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

A. B. Costello
123 Main Street
Anytown, USA 55555
DATE                08/08/05        12:40:22
ACCOUNT #           xxxxxxxxxxxxxx
REFERENCE           xxxxxxxxxxxxxx
DRIVER #            xxxxxxxxxxxxxx
TRUCK UNIT ID       xxxxxxxxxxxxxx
-----
SALE #123456        DATE 08/08/05    12:42:36
COUNT: START 0.0 END          xxxxxxxx.x
GROSS DELIVERY           xxxxxxxx.x GALLONS
XXXXX XXXXXXXXXXXXXXXXXXXX          LPG      1
VOLUME CORRECTED TO           60.0    F
-----
TANK                xxxxxxxxxxxxxx
(Product description text)
PRE-BUY QTY          xxxxxxxx.x GALLONS
PRE-BUY PRICE                $xxxxxxx.xx
TAXED PRE-BUY SUBTOTAL      $xxxxxxx.xx
PURCHASE QTY            xxxxxxxx.x GALLONS
PRICE/GALLONS                $xxxxxxx.xx
PRODUCT SUBTOTAL          $xxxxxxx.xx
Tax rate 1:                $xxxxxxx.xx
Tax rate 2:                $xxxxxxx.xx
Tax rate 3:                $xxxxxxx.xx
Tax rate 4:                $xxxxxxx.xx
Tax rate 5:                $xxxxxxx.xx
Tax rate 6:                $xxxxxxx.xx
Tax rate 7:                $xxxxxxx.xx
Tax rate 8:                $xxxxxxx.xx
Tax rate 9:                $xxxxxxx.xx
Tax rate 10:              $xxxxxxx.xx
Tax rate 11:              $xxxxxxx.xx
Tax rate 12:              $xxxxxxx.xx
Tax rate 13:              $xxxxxxx.xx
Tax rate 14:              $xxxxxxx.xx
Tax rate 15:              $xxxxxxx.xx
Tax rate 16:              $xxxxxxx.xx
Tax rate 17:              $xxxxxxx.xx
Tax rate 18:              $xxxxxxx.xx
Tax rate 19:              $xxxxxxx.xx
Tax rate 20:              $xxxxxxx.xx
Misc Tran 1:              $xxxxxxx.xx
Misc Tran 2:              $xxxxxxx.xx
Misc Tran 3:              $xxxxxxx.xx
-----
TOTAL INCLUDING TAX          $xxxxxxx.xx
PREVIOUS BALANCE            $xxxxxxx.xx
TOTAL DUE                    $xxxxxxx.xx
IF PAID BY mm/dd/yy          $xxxxxxx.xx
IF PAID BY mm/dd/yy          $xxxxxxx.xx
IF PAID BY mm/dd/yy          $xxxxxxx.xx
-----
Footer text line 1
Footer text line 2
Footer text line 3
Footer text line 4
Footer text line 5
Footer text line 6
-----

RECEIVED BY _____

```

Ticket Fields

The ticket to the left shows the default layout of a delivery ticket. Ticket layouts can be significantly altered with the DMS Office program using the Ticket Configuration Module (TCM).

Each delivery ticket is made up of three parts. The first part of the ticket (above the first dashed line) is printed by DMS Delivery. It includes a header and the account information for the delivery.

The second part (between the first and second dashed line) is printed by the LCR device at the completion of its delivery.

The third part (the remainder of the ticker) is printed by DMS Delivery after the LCR device is finished. It contains information generated by DMS Delivery based on delivery information and selected options.

A field's value will only show on the ticket if it is greater than 0. For example, if Tax rate 3 through Tax rate 20 are set to 0, they will not appear on the delivery ticket.

The same is true for the bottom third of the ticket. For example, if no information is available for PREVIOUS BALANCE or the footer text lines, they will not be printed.

Ticket Addendum

When a delivery is complete, an addendum can be printed with or without the ticket header. An addendum is typically printed when you enter a percent full value for the tank or a payment is received.

The ticket below shows a ticket addendum with the ticket header information. If the addendum ticket is printed with the header information, a new REFERENCE number, different than the delivery REFERENCE number, will be assigned.

If the ticket addendum does not require a separate header, printing a duplicate ticket will print duplicates of the information contained in both tickets. The result is a combined, single ticket, which may look like the ticket shown to the right.

```

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

A. B. Costello
123 Main Street
Anytown, USA 55555
DATE 08/08/05 12:40:22
ACCOUNT # xxxxxxxxxxxxxxxx
REFERENCE xxxxxxxxxxxxxxxx
DRIVER # xxxxxxxxxxxxxxxx
TRUCK UNIT ID xxxxxxxxxxxxxxxx
-----
TANK xxxxxxxxxxxxxxxx PERCENT FULL xxx%
TOTAL DUE $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
-----
DISCOUNT $xxxxxxxx.xx
CASH RECEIVED $xxxxxxxx.xx
CHECK #xxxxxxxxxxxxx $xxxxxxxx.xx
BALANCE DUE $xxxxxxxx.xx
-----
RECEIVED BY _____
    
```

```

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

A. B. Costello
123 Main Street
Anytown, USA 55555
DATE 08/08/05 12:40:22
ACCOUNT # xxxxxxxxxxxxxxxx
REFERENCE xxxxxxxxxxxxxxxx
DRIVER # xxxxxxxxxxxxxxxx
TRUCK UNIT ID xxxxxxxxxxxxxxxx
-----
SALE #123456 DATE 08/08/05 12:42:36
COUNT: START 0.0 END xxxxxxxxxxx.x
GROSS DELIVERY xxxxxxxx.x GALLONS
XXXXX XXXXXXXXXXXXXXXXXXXX LPG 1
VOLUME CORRECTED TO 60.0 F
-----
TANK xxxxxxxxxxxxxxxx
(Product description text)
PRE-BUY QTY xxxxxxx.x GALLONS
PRE-BUY PRICE $xxxxxxxx.xx
TAXED PRE-BUY SUBTOTAL $xxxxxxxx.xx
PURCHASE QTY xxxxxxx.x GALLONS
PRICE/GALLONS $xxxxxxxx.xx
PRODUCT SUBTOTAL $xxxxxxxx.xx
Tax rate 1: $xxxxxxxx.xx
Tax rate 2: $xxxxxxxx.xx
Tax rate 3: $xxxxxxxx.xx
Misc Tran 1:
-----
TOTAL INCLUDING TAX $xxxxxxxx.xx
PREVIOUS BALANCE $xxxxxxxx.xx
TOTAL DUE $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
-----
TANK xxxxxxxxxxxxxxxx PERCENT FULL xxx%
TOTAL DUE $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxxxx.xx
-----
DISCOUNT $xxxxxxxx.xx
CASH RECEIVED $xxxxxxxx.xx
CHECK #xxxxxxxxxxxxx $xxxxxxxx.xx
BALANCE DUE $xxxxxxxx.xx
-----
RECEIVED BY _____

** DUPLICATE TICKET **
    
```

Tickets

Cylinder Fill Ticket

```

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

A. B. Costello
123 Main Street
Anytown, USA 55555
DATE 08/08/05 12:40:22
ACCOUNT # xxxxxxxxxxxxxxxx
REFERENCE xxxxxxxxxxxxxxxx
DRIVER # xxxxxxxxxxxxxxxx
TRUCK UNIT ID xxxxxxxxxxxx
-----
SALE #123456 DATE 08/08/05 12:42:36
COUNT: START 0.0 END xxxxxxxx.x
GROSS DELIVERY xxxxxxxx.x GALLONS
XXXXX XXXXXXXXXXXXXXXXXXXX LPG 1
VOLUME CORRECTED TO 60.0 F
-----
(Product description text)
TANK xxxxxxxxxxxx CYLINDERS xxxxxx
UNIT CHARGE $XX.XXXX $xxxxxx.xx
TANK xxxxxxxxxxxx CYLINDERS xxxxxx
UNIT CHARGE $XX.XXXX $xxxxxx.xx
TANK xxxxxxxxxxxx CYLINDERS xxxxxx
UNIT CHARGE $XX.XXXX $xxxxxx.xx
CYLINDER SUBTOTAL $xxxxxx.xx
Tax rate 1: $xxxxxx.xx
Tax rate 2: $xxxxxx.xx
Tax rate 3: $xxxxxx.xx
Misc Tran 1: $xxxxxx.xx
-----
TOTAL INCLUDING TAX $xxxxxx.xx
PREVIOUS BALANCE $xxxxxx.xx
TOTAL DUE $xxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxx.xx
-----
Footer text line 1
Footer text line 2
-----
RECEIVED BY _____
    
```

Cylinder Exchange Ticket

```

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

A. B. Costello
123 Main Street
Anytown, USA 55555
DATE 08/08/05 12:40:22
ACCOUNT # xxxxxxxxxxxxxxxx
REFERENCE xxxxxxxxxxxxxxxx
DRIVER # xxxxxxxxxxxxxxxx
TRUCK UNIT ID xxxxxxxxxxxx
-----
SALE #123456 DATE 08/08/05 12:42:36
COUNT: START 0.0 END xxxxxxxx.x
GROSS DELIVERY xxxxxxxx.x GALLONS
XXXXX XXXXXXXXXXXXXXXXXXXX LPG 1
VOLUME CORRECTED TO 60.0 F
-----
TANK xxxxxxxxxxxxxxxx
(Product description text) $xxxxxx.xx
DROP OFF XXXXX@XX.XXXX $xxxxxx.xx
PICK UP XXXXX@XX.XXXX $xxxxxx.xx
CYLINDER SUBTOTAL $xxxxxx.xx
Tax rate 1: $xxxxxx.xx
Tax rate 2: $xxxxxx.xx
Tax rate 3: $xxxxxx.xx
Misc Tran 1: $xxxxxx.xx
-----
TOTAL INCLUDING TAX $xxxxxx.xx
PREVIOUS BALANCE $xxxxxx.xx
TOTAL DUE $xxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxx.xx
IF PAID BY mm/dd/yy $xxxxxx.xx
-----
Footer text line 1
Footer text line 2
-----
RECEIVED BY _____
    
```

Recirculation Ticket

```

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

RECIRCULATION

DRIVER #                xxxxxxxxxxxx
TRUCK UNIT ID          xxxxxxxxxxxx
-----
SALE #xxxxxx  DATE      08/08/05  08:22:31
COUNT: START 0.0  END    xxxxxxxxxxxx.x
GROSS DELIVERY          xxxxxxxxxxxx.x  GALLONS
xxxxxx xxxxxxxxxxxxxxxxxx          LPG      1
VOLUME CORRECTED TO          60.0  F
    
```

End Shift Ticket

```

DMS Delivery SHIFT TICKET

SHIFT START              08/08/05  09:20:13
SHIFT FINISH             08/08/05  15:18:21

DRIVER #                xxxxxxxxxxxx
TRUCK UNIT ID          xxxxxxxxxxxx
BEGINNING ODOMETER     xxxxxxxxxxxx.x
ENDING ODOMETER        xxxxxxxxxxxx.x
MILES DRIVEN           xxxxxxxxxxxx.x

DELIVERIES BY FUEL TYPE
TYPE                    xxxxxxxx
DELIVERIES              xxx
GROSS                   xxxxxxxxxxxx.x  GALLONS
NET                     xxxxxxxxxxxx.x  GALLONS

DELIVERY SUMMARY BY LCR
DEVICE #XXX            xxxxxxxxxxxxxxxxxxxxxxxx
LAST SHIFT             xxxxxxxxxxxx.x  GALLONS
START SHIFT           xxxxxxxxxxxx.x  GALLONS
END SHIFT              xxxxxxxxxxxx.x  GALLONS
RECORDED              xxxxxxxxxxxx.x  GALLONS
UNACCOUNTED           xxxxxxxxxxxx.x  GALLONS
METER TICKETS PRINTED xxxxxxxxxxxx
METERED SALES         xxxxxxxxxxxx

SALES SUMMARY
SALES TOTAL            $xxxxxxxx.xx
AMOUNT DISCOUNTED   $xxxxxxxx.xx
CASH RECEIVED         $xxxxxxxx.xx
CHECKS RECEIVED       $xxxxxxxx.xx
TOTAL RECEIVED        $xxxxxxxx.xx
    
```

Tickets

Vehicle Inspection Ticket

DRIVER'S VEHICLE INSPECTION REPORT
Completion of this report required
by Federal Law 49 CFR 396.11 and
396.13

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

Date: 08/08/05 12:40:22
Driver # xxxxxxxxxxxxxxxx
Truck/Tractor: xxxxxxxxxxxxxxxx
Reference: xxxxxxxxxxxxxxxx
Odometer Mileage xxxxxxxxxxxxxxxx

Engine: Yes
Transmission: Yes
Clutch: Yes
Steering Mechanism: Yes
Horn: Yes
Windshield Wipers/Washers: Yes
Rear Vision Mirrors: Yes
Lighting Devices and Reflectors: Yes
Parking Brakes: Yes
Service Brakes: Yes
Tires: Yes
Wheels and Rims: Yes
Emergency Equipment: Yes
ERS Test OK at 150 Feet: Yes

Vehicle Condition OK: Yes

Reporting Driver's Signature

Defects Corrected? Yes No
Defects Explained? Yes No

Mechanic's Signature

Reviewing Driver's Signature

Out of Gas Ticket

OUT OF GAS REPORT

Liquid Controls, LLC
105 Albrecht Drive
Lake Bluff, IL 60044-2242
(800) 458-5262

DATE: 08/08/05 09:20:13

A. B. Costello
123 Main Street
Anytown, USA 55555
Account # xxxxxxxxxxxxxxxx
Tank # xxxxxxxxxxxxxxxx
Driver # xxxxxxxxxxxxxxxx
Truck Unit ID xxxxxxxxxxxxxxxx

Transaction Code xxxxxxxx
Temperature xxx
PSI xxx
Tank Filled Yes

Reporting Driver's Signature

Software Maps

Software Menus - DMS Delivery

DRIVER LOGON

LCRData (DMS) v1.00
(c) Liquid Controls LLC 2005

DRIVER LOGON
Drive ID
Driver Password

NEW CUSTOMER

Account #
Product
Price and Tax
Miscellaneous Fees
Discounts
Presets

SELECT CUSTOMER

Route #
Account #
Name
City

Software Menus - DMS Delivery

ACCOUNT INFORMATION

Account number and tank ID
Customer name
Customer address
City, State ZIP
Product description and inventory
Price per unit and product code

Account number and tank ID
Customer name
Presets
Miscellaneous Fees
Discounts
Price and Tax

Directions
Cylinder Exchange
Cylinder Fill
Directions to Tank

VERSION NUMBERS

LCRData
LCLCLCP
LCLCLCP02
LCLCL02X
LCLCLib

LCLCTIO
LCLCWIN
LCLCSLF
HSLCLSF

Software Menus - DMS Delivery

REPORTS

Reprint Delivery Ticket
Transaction Summary Ticket
Route Ticket
Out of Gas Ticket
DOT Ticket
Reprint Shift Ticket

RECEIVE PAYMENT

Acct Balance
Over 30 Days
Today's Charge
Discount
Received
Net Balance

INVENTORY

Product # and unit of measure
Description
Fuel Type
Product Code
Inventory

OUT OF GAS

Tank ID
Reference
Transaction Code
Temperature
PSI
Tank Filled?

SHIFT INFORMATION

Shift Start
Product Type
Deliveries
Gross Qty
Net Qty
Payment Received

Software Menus - DMS Delivery

DOT

Engine
Transmission
Clutch
Steering Mechanism
Horn
Windshield

Rear Vision Mirrors
Lights / Reflectors
Parking Brakes
Service Brakes
Tires
Wheels and Rims

Emergency Equipment
ERS Test at 150 ft
Truck Condition OK

Price and Tax

Price per gallon
Tax Code
View Tax Applied
Type of tax
Description of tax

Miscellaneous Fees

Code
Miscellaneous Fee
Tax Code
Name

Discount

DISCOUNT (CASH)
Cash Code
Days
Discount %
Discount per unit

DISCOUNT (VOLUME)
Level
Rate \$
Level
Rate \$
Level
Rate \$

Select Preset

Product #
Product Code
preset Type
Net
Price
Select Auxiliary Outputs

Software Menus - DMS Delivery

Delivery Active (1 LCR)

LCR#, product code, unit of measure, volume
Presets
LCR, Net, Gross

Printer Status

Delivery Ticket
Shift Ticket
Diagnostic Ticket
Pass-Through Ticket

Delivery Active (2 LCR)

LCR#, product code, unit of measure, volume
LCR#, product code, unit of measure, volume
Presets
LCR, Net, Gross

Printer Error
Printer Busy

Delivery Active (3 LCR)

LCR#, product code, unit of measure, volume
LCR#, product code, unit of measure, volume
LCR#, product code, unit of measure, volume
Presets
LCR, Net, Gross

Machine Status

State
Printing
Other Errors
Printer Status
Delivery Status

Software Menus - DMS Delivery

Delivery Status

ROM Check Sum
Temperature
Watchdog
VCF Setup

VCF Domain
Meter Calibration
Pulser Failure
Preset Stop

No-Flow Stop
Stop/Pause Request
Print/End Request
Power Failure

Preset Error
RS-232 DMS Lap Pad
Printer
Data Access

End of Delivery

Receive Payment
Percent Full

Auxiliary Setup

Product
Aux1
Aux2
No-Flow Timer

Software Menus - DMS Delivery

Recirculation (1 LCR)

LCR#1
Net Gallons

Cylinder Exchange

Received
Price/Unit \$
Delivered
Price/Unit \$
Tax Code
Cash Discount Code

Recirculation (2 LCR)

LCR#1
Net Gallons
LCR#2
Net Gallons

Account Number & Tank ID
Customer Name
Delivery Type
Last Delivery

Recirculation (3 LCR)

LCR#1
Net Gallons
LCR#2
Net Gallons
LCR#3
Net Gallons

Cylinder Fill

Type 1 Cylinders
Tank/Type 1
Price/Unit \$
Type 2 Cylinders
Tank/Type 2
Price/Unit \$

Type 3 Cylinders
Tank/Type 1
Price/Unit \$
Terminate Delivery
Receive Payment

Software Menus - DMS Menu

DMS Menu

DMS Delivery
LCR Host
LCP File Server

Send Transactions to Office
Receive Database from Office

SYSTEM UTILITIES

Language
DMS Password
DMS Date Format
DMS Date
DMS Time

Startup Caps Lock
Startup Insert Flag
Office Node Address
Office Path
USB Path

Upgrade DMS Software
Create DMS Image

DMS About Display

Support SDKs
LCLCLCP
LCLCLCPF
LCLCLib
LCLCTIO
LCLCWIN
LCLCSLF
HSLCSLF



**Backed by our Worldwide reputation for
Quality, Accuracy and Advanced Design.**



LIQUID CONTROLS

A Unit of IDEX Corporation
105 Albrecht Drive
Lake Bluff, IL 60044-2242
1.800.458.5262 • 847.295.1050
Fax: 847.295.1057
www.lcmeter.com

© 2006 Liquid Controls
Pub. No. 500344
(11/06)

