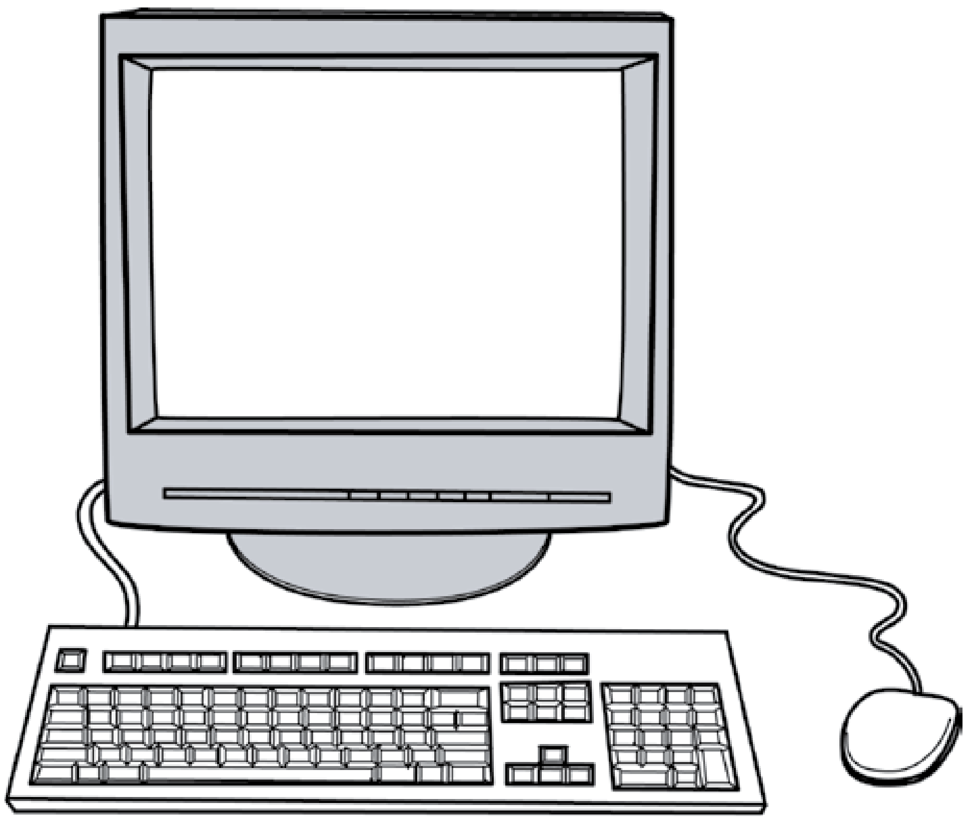
# DMS OFFICE PROGRAM | Installation and Operation



Installation: EM200-13

# Table of Contents



**⚠ 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.

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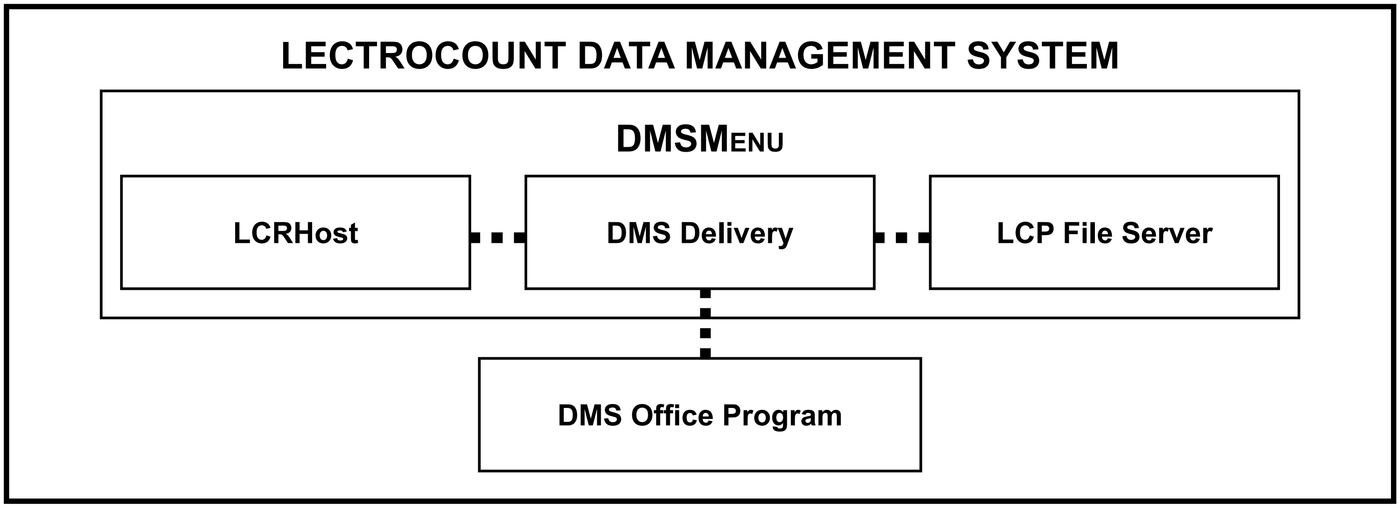
# LectroCount Data Management System




The LectroCount DMS is a “Data Management System.” Using recorded data from a metering system, the DMS receives, organizes and manipulates 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 Office Program 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 are in the *DMS Operator’s Manual*: **EM200-12**.

**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 or an optional RF link.

**DMS Delivery** instructions are in the *DMS Operator’s Manual*: **EM200-12**.

**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 office software, the DMS Office program and the DMS Module.

**DMS Office** instructions begin on page 6

Other LectroCount DMS publications include:

- DMS Installation Manual: **EM200-10.**
- DMS Setup & Operation Manual: **EM200-11.**
- DMS Operator’s Manual: **EM200-12.**
- DMS 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.

**USB Flash Memory Device**

The USB flash memory device is a data repository used to transfer data between the DMS Module and the office computer.

**DMS Office Software**

DMS Office is a data capture program that serves as the bridge between the DMS Module and your company's back office software. It also configures ticket printouts and driver information.

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.


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

*DMS Module*

*Support Brackets*

*DMS Lap Pad*

*Epson Slip Printer*

*USB Flash Memory Device*

*DMS Office Software*

## SOFTWARE INSTALLATION

### Installation Requirements

- 10 Mbytes free hard drive space (minimum)
- 64 Mbytes RAM (minimum)
- 200 MHz Pentium style processor (or faster)
- Windows NT, 2000, or XP operating system
- CD-ROM Drive
- USB Flash Memory Device


*Run Window*

### Startup

Insert the CD-ROM. The setup program should automatically launch.

If the automatic launch fails:

1. Click **Start**.
2. Click **Run**.
3. Click **Browse** and search the CD-ROM Drive.
4. Click **SETUP.EXE** and click on **Open**.
5. Click **OK** to start the installation process. The installation splash screen will briefly appear before the Welcome window (Install 1).


*Install 1*

### Welcome

Appears immediately after the splash screen. Click **Next>** to advance to the Software License Agreement window (Install 2).


*Install 2*

### Software License Agreement

Read the agreement carefully and click **Yes** to continue to the Choose Destination Location window (Install 3).


*Install 3*

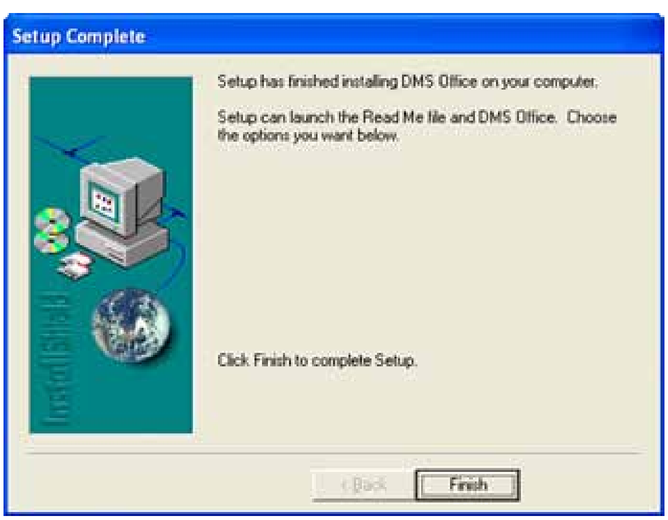
## Choose Destination Location

Installs DMS Office into a folder on your hard drive or network. You can use the default settings, or you can choose a custom folder. Enter that folder here. Click **Next>** to advance to the Setup Type window (Install 4).


*Install 4*

## Setup Type

Selects the type of installation. Leave the selection on the default **Typical** and click **Next>** to advance to the Setup Complete window (Install 5).




*Install 5*

## Setup Complete

Click **Finish** to complete the installation process and exit the setup program. The CD ROM may now be removed from the computer drive, and DMS Office can be launched.

| DMS MANUALS |
| --- |
| After installation, manuals are available in the Help folder as .pdf files |

## Launch DMS Office

1. Click on **Start**.
2. Click on **Run**.
3. Click on **Browse** and search for the folder: C:\Program Files\Liquid Controls\DMS Office
4. Click on **DMSOffice.exe** and click on **Open**.
5. Click on **OK** to launch the program.

## DMS FILE CONVERSION & TRANSFER

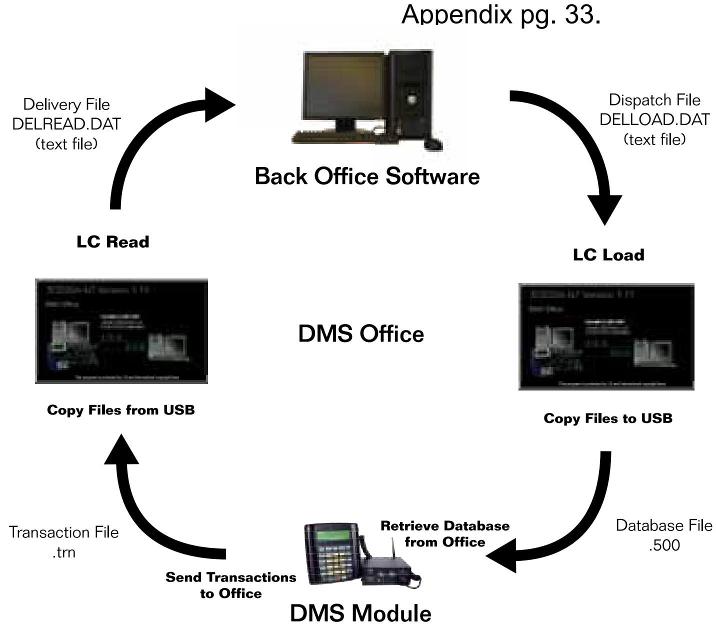
Although DMS Office has several applications, its main function is as a data capture program. DMS Office prepares, loads, and reads files for transfer between DMS Delivery and your back office business management software.

Using an ASCII text file (DELLOAD.DAT) generated by your back office software, DMS Office converts dispatch information into a readable format for DMS Delivery (.500 files) and copies them onto a USB Flash Memory Device.

Using DMS Delivery, drivers retrieve the dispatch information from the USB Flash Memory Device before beginning their routes.

When drivers finish their routes, they copy the transaction files (.trn files) recorded by DMS Delivery to the USB Flash Memory Device.

DMS Office then pulls the transaction files from the USB Flash Memory Device and converts them into an ASCI text file (DELREAD.DAT) for the back office software. See Appendix pg. 33.




## DMS OFFICE TOOLS

DMS Office provides many important tools for managing transaction information and DMS Delivery functions.

- Layout ticket printouts
- Define and label tax values
- Specify tax structures
- Set passwords
- Create driver roster
- Align products with LCR-II

### USB Flash Memory Device

A USB Flash Memory Device is included with every DMS system. It is set up for immediate use.

USB Flash Memory Device volume labels must be changed to **DMS_USB**. To change the volume label, right click on your USB drive in your **My Computer** window, select **Properties**, and change the name in the **General** page.

### Batch Files

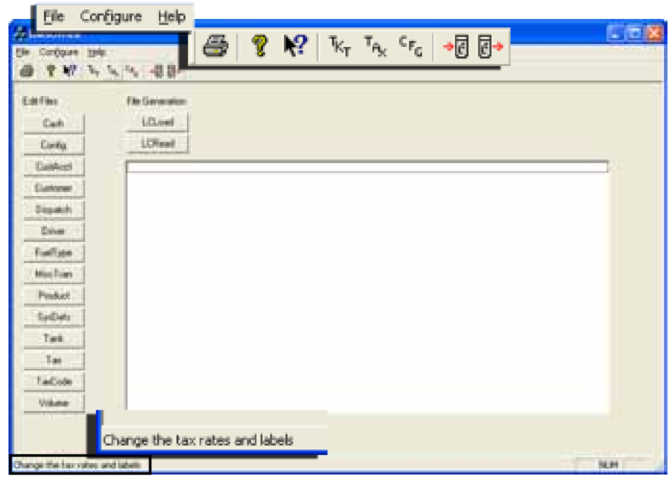
DMS Office runs on a default GUI interface, but it can be run with batch files using DMSLCRead.exe and DMSLCLoad.exe. The batch files can perform one step file transfers between DMS Delivery and the back office software (similar to LC$^3$). See Appendix pg. 47.

**STORE BOUGHT USB**
Some store bought USB Flash Memory Devices can function with the DMS system, and some do not. To configure a USB Flash Memory Device: change the volume label to DMS_USB and copy the files from a factory set USB onto the store bought USB.

**DMS COMPATIBLITY**
DMS Office and DMS Delivery versions of different generations are not compatible. They must be updated together. See Appendix (pg. 47) for a software version compatibility table.

## DMS OFFICE MAIN WINDOW

Shown on the right, the Main Window provides access to all of DMS Office's tools. Starting at the top, there are three drop down menus (**File**, **Configure**, and **Help**), a toolbar, fourteen **Edit File** buttons (.500 files - pg. 11), two **File Generation** buttons (**LCLoad** and **LCRead** - pg. 18), and a status bar. These menus and buttons are visible in most windows. While navigating DMS Office, if you can't find a button, return to the Main Window via the **Configure** menu's **Main** command. Some windows will also have an additional **Main Screen** button under **Edit Files**.




*DMS Office Main Window*
*(with exploded view of drop down menu, toolbar and dialogue bar)*

### Dialogue Bar

The dialogue bar is located at the bottom left. When the cursor is placed over a button, the dialogue bar provides a short description of the button's function.

### File Menu

**New**

Creates a new .500 file

**Open**

Opens an existing .500 file

**LCLoad**

Converts text files into .500 files for DMS Delivery

**LCRead**

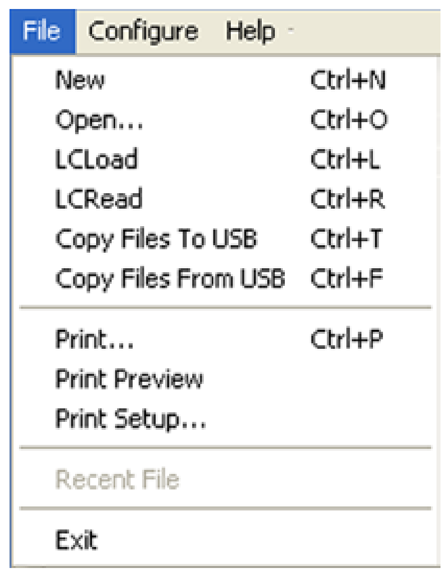
Converts CompTran.trn and Totals.trn into a text file for office software

**Copy Files to USB**

Sends .500 files to USB

**Copy Files From USB**

Retrieves.trn files from USB




*File Menu*

### Configure Menu

**General**

Opens Source and Destination Window

**Ticket**

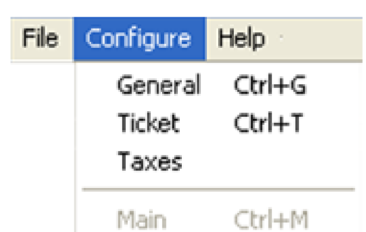
Opens Ticket Configuration Window

**Taxes**

Opens Tax Configuration Window

**Main**

Opens Main Window




*Configure Menu*

# Navigation & Operation

## Help Menu

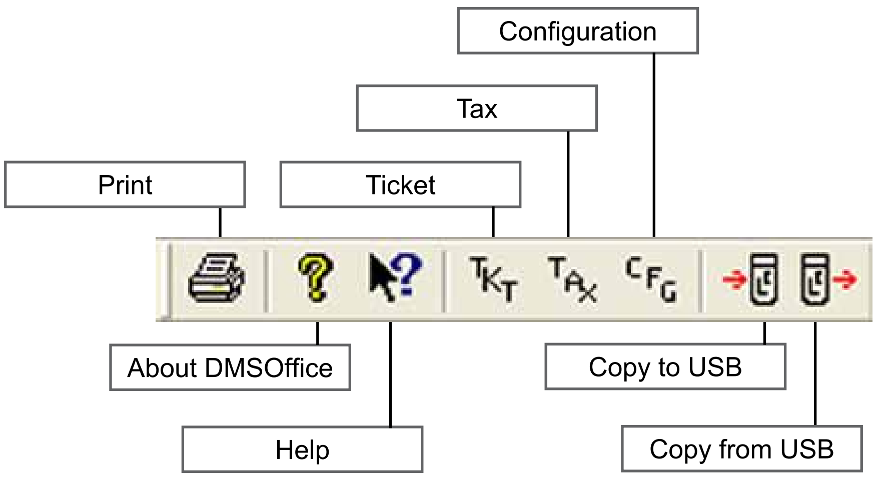
**Help Topics**

Opens Help files *Not Active April 2007*

**About DMSOffice**

Displays version and copyright information


*Help Menu*




## TOOLBAR

**Print**

Prints active document *Not Active April 2007*

**About DMSOffice**

Displays version and copyright information

**Help**

Opens Help files

**Ticket**

Opens the Ticket Configuration Window

**Tax**

Opens the Tax Configuration Window

**Configuration**

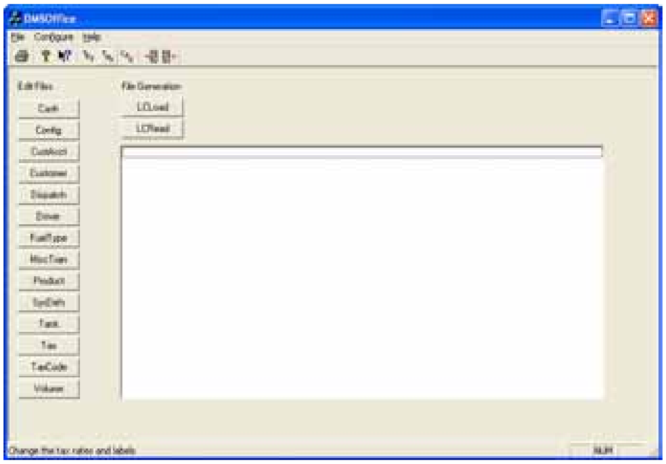
Opens Source and Destination Window

**Copy Files to USB**

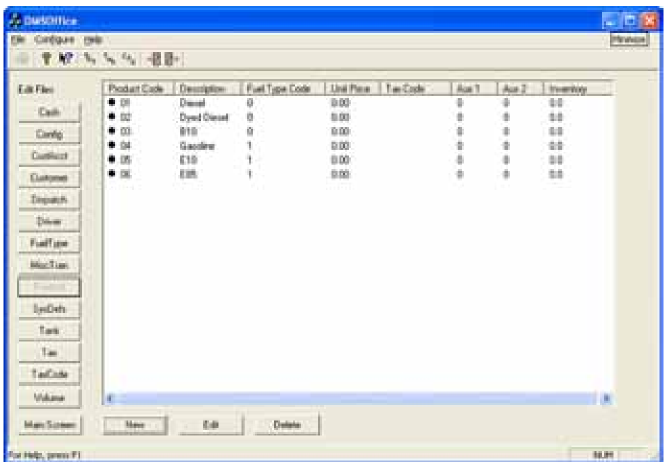
Sends .500 files to USB

**Copy Files From USB**

Retrieves .trn files from USB



*DMS Office Main Window*



*CustAcct.500 Window*


*Customer.500 New Record Window*

## .500 WINDOWS

LCLoad converts ASCII text files and distributes the data into .500 files. .500 files can be opened, viewed, and edited in DMS Office. To open .500 files, click the corresponding button to the left of the white page or choose the **Open** command from the file drop down menu.

Each .500 file display window has a white page which displays existing records and their field values. Below the white page, there are three buttons: **New**, **Edit**, and **Delete**. A **Main Screen** button below the original fourteen **Edit File** buttons will return the display to the Main Window.

CfgOfc.500 (CFG toolbar button - pg. 14), CfgTax.500 (TAX toolbar button - pg. 26), and CfgTkt.500 (TKT toolbar button - pg. 28) have unique window layouts. They do not use records. Only the toolbar and drop down menus are shown.

### NEW

Adds a new record to the .500 file. Click **New** to open a blank Record Window. Enter values in the white field boxes, click save, and the new record will appear on the white page.

### EDIT

Edits an existing record. Click inside the first field (**Access #** in CustAcct.500 example shown on the left) of a record to highlight it. Click inside a white field box to make changes, and click **Save** to add changes to .500 file.

### DELETE

Deletes an existing record. Click inside the first field (**Access #** in CustAcct.500 example shown on the left) of a record to highlight it. Click on the **Delete** button to delete from .500 file.

### MAIN SCREEN

Returns to the Main Window.

# Set Up

## QUICK START

Before running DMS Delivery, there are vital DMS Office tasks that must be completed. These tasks are listed below in their requisite sequence. After the steps are completed, you can run DMS Delivery; however, Liquid Controls recommends that you carefully read this manual and adjust DMS Office's settings to suit your exact needs before transferring files to DMS Delivery.

1. **DATA FILE FORMAT • Pg. 13**
   Generate ASCII text files using your back office software.

2. **SOURCE AND DESTINATION WINDOW • Pg. 14**
   Name and assign file paths in your hard drive.

3. **BEGINNING BALANCE • Pgs. 15 & 16**
   Match Beginning Balance field (Config.500) with the back office settings.

4. **TAX CONFIGURATION • Pgs. 26 & 27**
   Set DMS Office tax fields.

5. **LCLOAD • Pg. 18**
   Transfer data from back office software into DMS Office.

6. **PRODUCT CONFIGURATION • Pgs. 23 - 25**
   Label products in DMS Office and ensure they align with LCR-II settings.

7. **COPY FILES TO USB • Pg. 18**

## COMPLETE SET UP

To take advantage of DMS Office's many features and prevent set backs, follow these steps:

1. **DATA FILE FORMAT • Pg. 13**
   Generate ASCII text files using your back office software.

2. **SOURCE AND DESTINATION WINDOW • Pg. 14**
   Name and assign file paths in your hard drive.

3. **BEGINNING BALANCE & SYSTEM CONFIGURATIONS • Pgs. 15 & 16**
   Match Beginning Balance field (Config.500) with the back office settings.
   Activate and deactivate features and configurations for DMS Delivery and DMS Office.

4. **TAX CONFIGURATION • Pgs. 26 & 27**
   Set DMS Office tax fields.

5. **LCLOAD • Pg. 18**
   Transfer data from back office software into DMS Office.

6. **PRODUCT CONFIGURATION • Pgs. 23 - 25**
   Label products in DMS Office and ensure they align with LCR-II settings.

7. **ENTER DRIVERS • Pg. 17**
   Name drivers, assign passwords, and apply price protection.

8. **SET CASH AND VOLUME DISCOUNTS; CONFIGURE MISCELLANEOUS TRANSACTIONS • Pgs. 19 - 22**
   Select discount parameters and define and price miscellaneous transactions.

9. **CONFIGURE TICKET PRINTOUTS • Pgs. 28 - 32**
   Select information and layout tickets for DMS Delivery printouts.

10. **COPY FILES TO USB • Pg. 18**

## DATA FILE FORMAT

In order to interface with and pull data from your back office software, DMS Office needs the dispatch data to be in an ASCII text file format. ASCII text files can be generated by your back office software.

ASCII text files are divided into records, and records are divided into fields. A record contains data specific to one product, customer, or tank, and a field represents detail for that specific record (Example: a unit price of a product). Each record is terminated by a carriage return and line feed (CR/LF), and each field within the record is comma and quotation mark delimited.

“Field 1”, “Field 2”, Field 3”, “Field 4”, .... (CR/LF)

Some fields are strictly numeric and some are alphanumeric. All numeric fields must contain a value. If a numeric field does not have a positive or negative value, it must be 0. An alphanumeric field with no data is represented by a space between the quotation marks.

After the files are generated, export them to a common destination (see Source and Destination Window - pg. 14). Throughout this manual the ASCII text file created by the back office software will be refered to as DELLOAD.DAT, and the ASCII text file created by DMS Office for the back office software will be refered to as DELREAD.DAT.

## RECORD TYPES

The Totalizer Record and the Dispatch Records are generated by the back office software and converted into .500 files by LCLoad for transfer to DMS Delivery.

### Totalizer Record

The Totalizer Record contains data pertaining to products.

### Dispatch Record

Each Dispatch Record contains customer specific account data such as account number, address, taxes, price, preset amounts, and discounts.

The Completed Delivery Record and the Completed Miscellaneous Transactions Record are produced by DMS Delivery as .trn files and converted by DMS Office into ASCII text files for transfer to the back office software.

### Completed Delivery Record

The Completed Delivery Record contains the data recorded by DMS Delivery during delivery. DMS Delivery creates this record and then sends it to the back office software.

### Completed Miscellaneous Transactions Record

This record contains data for miscellaneous billable services not associated with a delivery.

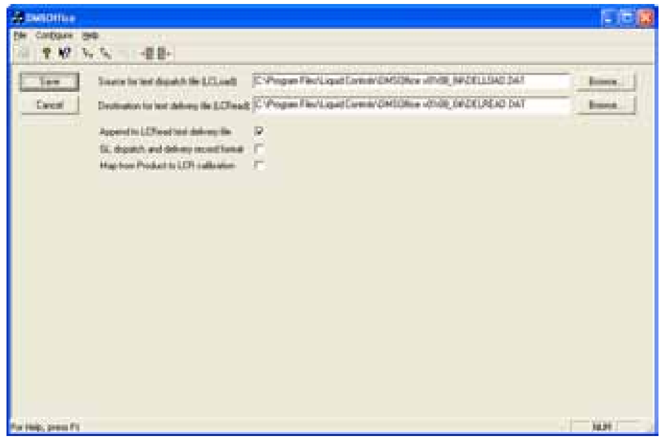
An example of each record and a table containing a description of every field can be found in Appendix.

## SOURCE AND DESTINATION WINDOW

The Source and Destination window assigns a location in the hard drive or network for DELLOAD.DAT and DELREAD.DAT. The **Source for text dispatch file** is the location of the ASCII text file generated by the back office software for DMS Office (DELLOAD.DAT). The **Destination for text delivery file** is the location of the DMS Office generated ASCII text file for the back office software (DELREAD.DAT).

To open this window,click the **CFG** button on the toolbar or select the **General** command under the **Configure** drop down window.

Either type in the file path or click the browse button. Make sure the ASCII data file name and your source file name match.



The Source and Destination window should be completed correctly before running LCLoad.

The **Save** button must be clicked for DMS Office to activate the new file paths and checked boxes.

### Append to LCRead text delivery file

**CHECKED** LCRead appends delivery records to an existing DELREAD.DAT file.

**UNCHECKED** LCRead overwrites any existing delivery records in the DELREAD.DAT file.

This box should be checked when running LCRead on multiple USB flash memory devices.

### GL dispatch and delivery record format

**CHECKED** Reads DELLOAD.DAT tax fields for a specialized three tax configuration.

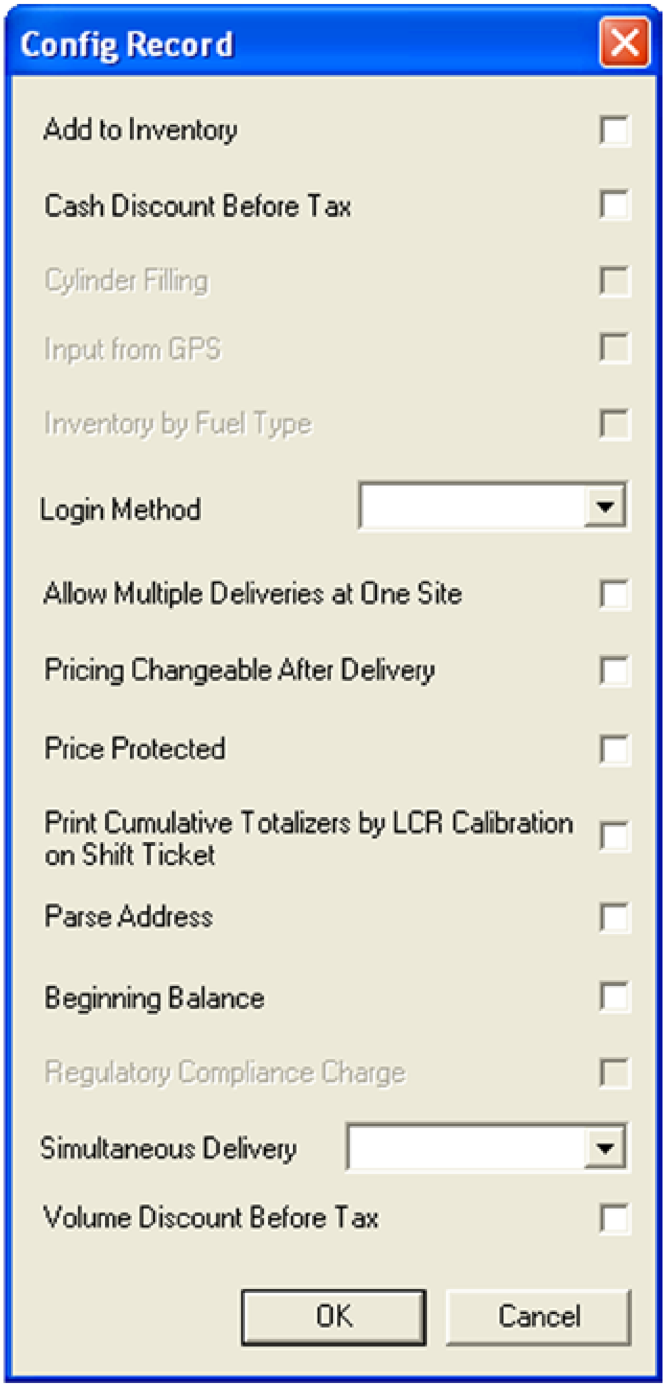
**UNCHECKED** Default tax configuration.

### Map from Product to LCR calibration

**CHECKED** Allows manual configuration of products, LCR-II # and LCR-II calibrations. Blocks out FuelType.500.

**UNCHECKED** Allows FuelType.500 configuration to automatically find LCR-II calibrations in DMS Delivery.

By checking this box, DMS Office will configure products in the same manner as the $LC^3$. See pg. 26.




# CONFIG.500

The Config.500 file defines driver interface parameters. They can be changed in the Config Record window.

### Add to Inventory

**Checked** Driver-entered product inventory added to the current product inventory value.

**Unchecked** Driver-entered product inventory overwrites the current product inventory value.

### Cash Discount Before Tax

**Checked** Cash discounts applied before taxes are calculated.

**Unchecked** Cash discounts applied after taxes are calculated.

### Login Method

**Driver & Password:** Login and password required.

**Driver:** Login required. Password not required.

**None:** Login and password not required.

### Allow Multiple Deliveries at One Site

**Checked** More than one delivery per site. Allows driver to disable no-flow timeout.

**Unchecked** One delivery per site. No-flow timer remains on.

### Price Changeable After Delivery

**Checked** Driver can change the price after delivery.

**Unchecked** Driver can not change the price after delivery.

> Washed out Items in the Config Record window are not currently active.

> If this option is active, the ticket layout must be changed to avoid printing the default price. To make sure the driver's price is printed, move all price related ticket lines from the trailer to the addendum. See Trailer Field Types - pg. 32.

## CONFIG.500

### Price Protected

**Checked** DMS Office checks for price protection in Driver.500 records.

**Unchecked** DMS Office does not check for price protection in Driver.500 records.

> The **Price Protected** box in Config.500 and the **Price Protection** in Driver.500 must both be checked to prohibit the driver from changing the price.

### Print Cumulative Totalizers by LCR calibration on Shift Ticket

**Checked** DMS prints meter cumulative totalizers according to LCR calibration.

**Unchecked** DMS prints meter cumulative totalizers according to each product.

### Parse Address

**Checked** The system parses the second address field for city, state, and zip code into fields “City”, “State”, and “Zip” of the Customer.500 file and “Address 2” will remain blank.

**Unchecked** The system does not attempt to parse the second address field. City, state, and zip code will appear in the “Address 2” field of the Customer.500 file. “City”, “State”, and “Zip” fields will remain blank.

### Beginning Balance

**Checked** DMS Office saves value from DELLOAD.DAT beginning balance field to CustAcct.500 file.

**Unchecked** Assumes beginning balance field does not exist in DELLOAD.DAT record. CustAcct.500 field defaults to 0.

> **Complete before LCLoad**
>
> If DELLOAD.DAT has a beginning balance field and this is not checked (or vice versa), DELLOAD.DAT will show an error message and will not perform properly.

### Simultaneous Delivery

**None** No simultaneous deliveries.

**Separate Taxes** Volume, subtotal and price of simultaneous deliveries will be kept separate.

**Combined Taxes** Volume, subtotal and price of simultaneous deliveries will be combined.

> Simultaneous delivery is disabled if the **Map from Product to LCR Calibration** box is checked in the Source and Destination window

> To combine taxes on a simultaneous delivery, the customer’s tank records must have the same: product code, temperature compensation, volume discount code, tax code, unit price, and number of decimal place in LCR-II configuration

### Volume Discount Before Tax

**Checked** Volume discounts subtracted from the subtotal before taxes are calculated.

**Unchecked** Volume discounts subtracted from the price after taxes are calculated and applied.


The **Login Method** option in Config.500 file defines how the driver logs on to DMS Delivery.

## DRIVER.500

The Driver.500 file maintains driver roster information. Drivers can be added, assigned passwords, and prohibited from changing prices. All drivers must be given a Driver # and a Name. Password and Price Protection are optional.

### Driver Number

Enter a unique alphanumeric value <= 10 characters.

### Name

Enter a unique alphanumeric value <= 28 characters.

### Password

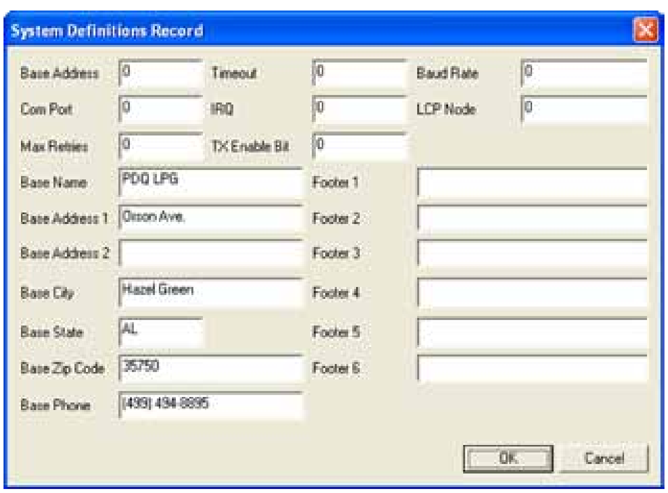
Enter a unique alphanumeric value <= 10 characters.

### Price Protected

**CHECKED** Driver can not change pricing.

**UNCHECKED** Driver can change pricing.

The **Price Protected** box in Config.500 and the **Price Protection** in Driver.500 must both be checked to prohibit the driver from changing the price.




The first 8 fields across the top: **Base Address**, **Timeout**, **Baud Rate**, **Com Port**, **IRQ**, **LCP Node**, **Max Retries**, and **TX Enable Bit** are configured in the DMS Module and can be left at their default value.

## SYSDEFS.500

The SysDefs.500 file maintains the company base address and connection parameters. The address can be printed in the header of the ticket printout and for any additional information, there are six ticket footer fields available. This file is not required for DMS Delivery operation and is completely independent of the header and addendum in the DMS Delivery.

### Base Name

Enter an alpha-numeric value <= 35 characters.

### Base Address 1 and Base Address 2

Enter an alpha-numeric value <= 35 characters.

### Base City, State, Zip Code

Enter an alpha-numeric value.

### Base Phone

Enter an alpha-numeric value.

### Footer 1 through Footer 6:

Enter an alpha-numeric value <= 35 characters.

# File Transfer

## LCLOAD

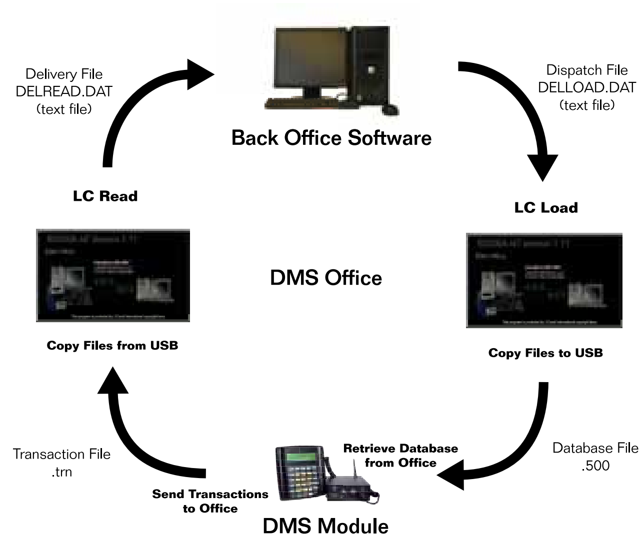
LCLoad converts an ASCII text file, generated by the back office software, into .500 formats for DMS Delivery.

To launch LCLoad, simply click the **LCLoad** button or click **LCLoad** in the **File** drop down menu.

LCLoad searches the folder designated in the **Source for dispatch file (LCLoad)** field of the Source and Destination Window for the ASCII text file (DELLOAD.DAT).

After the files are converted, they must be copied to the USB Flash Memory Device and saved into DMS Delivery to complete the transfer

## DMS FILE TRANSFER




If the program is free of errors during the conversion process, the CompTran.trn file is automatically deleted from the file folder.

Every DMS Module is supplied with a USB Flash Memory Device configured for immediate use.

## LCREAD

After copying the delivery files from the USB Flash Memory Device, LCRead converts them to an ASCII text file for the back office software.

LCRead will convert the two files into an ASCII text file and place them in the folder designated by the **Destination for delivery file (LCRead)** field of the Source and Destination Window (DELREAD.DAT).

To launch LCRead, simply click the **LCRead** button or click **LCRead** in the **File** drop down menu.

If the **Append to LCRead text delivery file** field in the Source and Destination Window is checked, LCRead will add new delivery records to the existing records in the destination file. If the field is not checked, the existing files will be overwritten.

When complete, the output file can be imported into the back office software.

## COPY FILES TO USB

After running LCLoad, the files, now formatted for the DMS Delivery program, can be saved to the USB Flash Memory Device for file transfer to DMS Delivery.

To save files to the USB, insert the USB Flash Memory Device into the computer's USB port and click the Copy Files to USB button in the toolbar or click **Copy Files to USB** in the **File** drop down menu.

Safely remove the USB Flash Memory Device from the office computer and insert into the DMS Module. Follow the instructions in the DMS Operator's manual (publication EM200-12) to load files into DMS Delivery.

## COPY FILES FROM USB

When the drivers return with delivery data, the .trn files, created by DMS Delivery, need to be saved to the USB Flash Memory Device. Follow the instructions in the DMS Operator's manual (publication EM200-12) to retrieve files from DMS Delivery. DMS Office can then copy the .trn files from the USB Flash Memory Device. LCRead can then convert the files into an ASCII file format for the back office software.

To load delivery files onto DMS Office from the USB Flash Memory Device, insert the USB Flash Memory Device into the computer's USB port and click the Copy Files from USB button in the toolbar or choose **Copy Files from USB** in the **File** drop down menu.

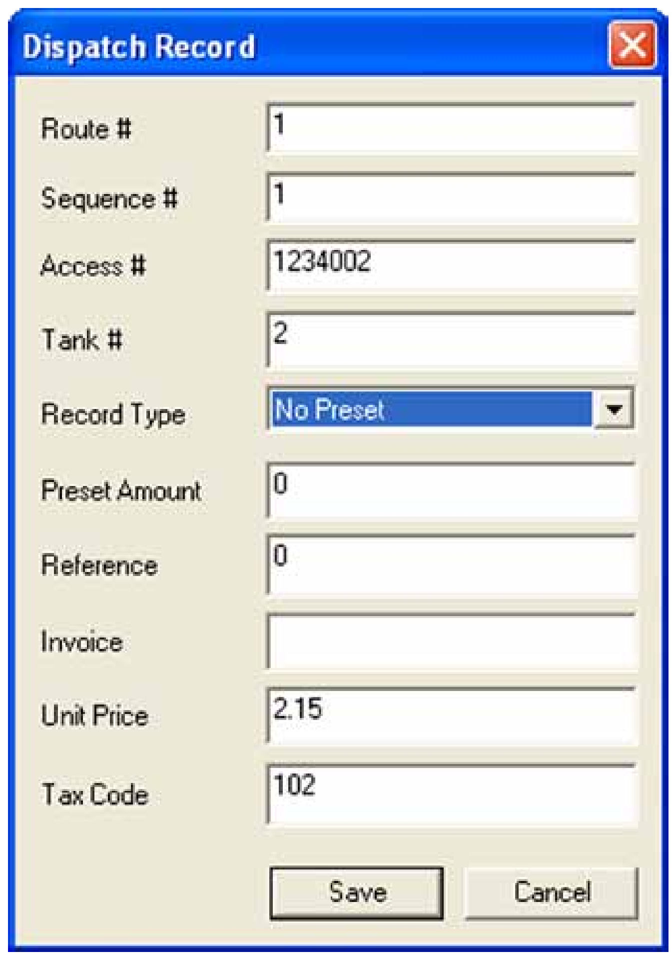
## CUSTOMER.500

The Customer.500 file contains basic customer ID information. LCLoad populates these fields using data from DELLOAD.DAT, but records can be added and edited using DMS Office.

> **City**, **State**, and **Zip** fields will be populated if the **Parse Address** field is checked in the Config.500 file before LCLoad was run.


## DISPATCH.500

The Dispatch.500 file defines the delivery parameters for each account. LCLoad populates these fields using data from DELLOAD.DAT, but records can be added and edited using DMS Office.




> If **Tax Code** and **Unit Price** are left blank, DMS Delivery will use the default tax code defined in the product file.They can also be entered using DMS Delivery before delivery.

### Route #

The routing number associated with the account.

*Not Active April 2007*

### Sequence #

The place of the account in the routing sequence.

*Not Active April 2007*

### Access #

The customer access number of the current account.

### Tank #

The customer tank of the current account.

### Record Type

The type of preset according to volume and price: **No Preset**, **Net** (Preset), **Gross** (Preset), and **Price** (Preset).

### Preset Amount

The preset amount of the current account.

### Reference

The dispatch reference number (also referred to as the **End Use Code**).

### Invoice

Values in this field will appear on the ticket as the invoice number for every delivery to this account. Leave this field blank and DMS will use the next available invoice or ticket number.

### Unit Price

The default unit price per volume of the current account.

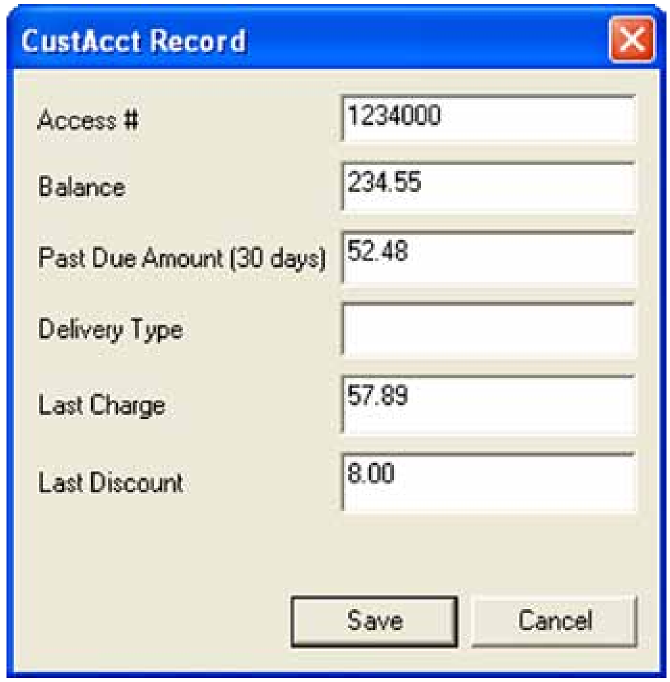
## DISPATCH.500

### Tax Code

The default tax code for the current account. Any entry must match a tax code in the TaxCode.500 file.

## CUSTACCT.500

The CustAcct.500 file contains customer billing information. LCLoad populates these fields using data from DELLOAD.DAT.




### Access #

The current customer's access number.

### Balance

The current account balance.

### Past Due Amount (30 days)

Any amount more than 30 days overdue.

*Not Active April 2007*

### Delivery Type

This field is not used.

*Not Active April 2007*

### Last Charge

The last total dollar amount charged to the current account. Typically used in DMS Delivery.

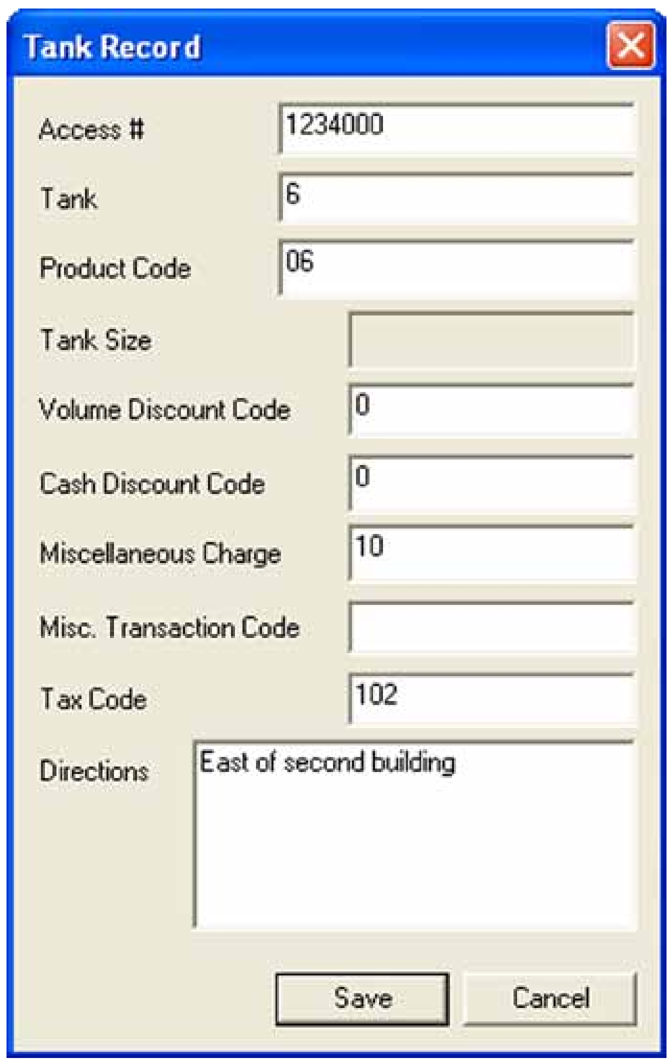
### Last Discount

The last discount applied to the current account. Typically used in DMS Delivery.

## TANK.500

The Tank.500 file defines the parameters of a customer's tank or tanks. This is especially useful for customers with more than one tank and a different product for each tank.

At least one tank record is generated per customer account. Because there is a record generated for each tank, the account numbers of customers with multiple tanks will appear more than once.

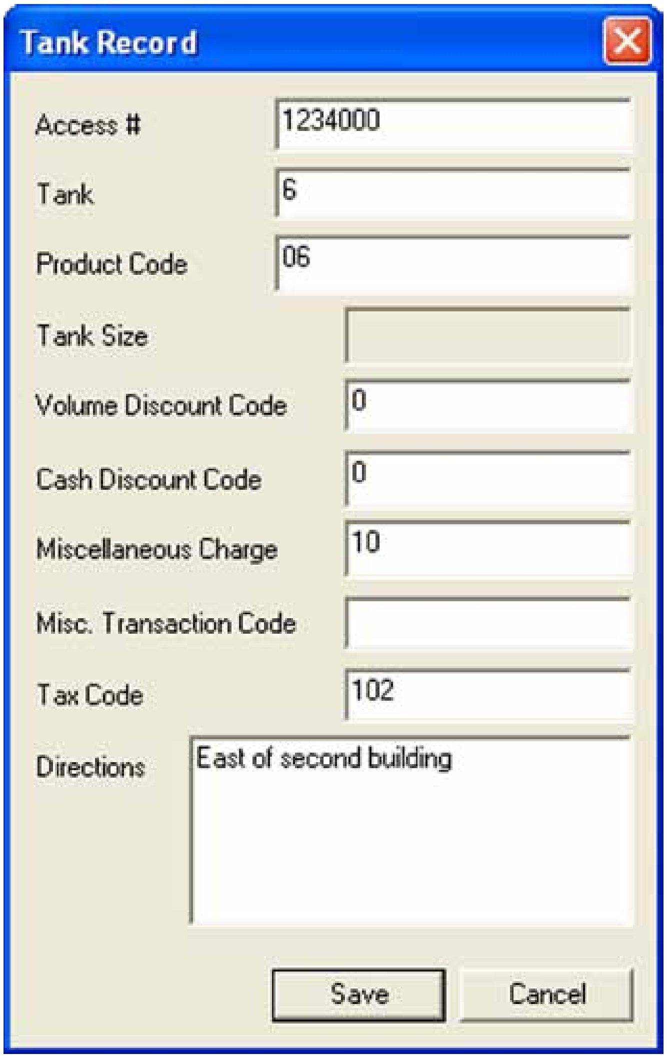



### Access #

The customer account access number.

### Tank

The tank reference number. Each customer tank is assigned a separate number.




## TANK.500

### Product Code

The product code of the product stored in the tank. Any entry must match a product code from the Product.500 file.

### Volume Discount Code

Volume discount code defined in the Volume.500 file. Any entry must match a volume discount code from the Volume.500 file.

### Cash Discount Code

Cash discount code defined in the Cash.500 file. Any entry must match a cash discount code from the Cash.500 file.

### Miscellaneous Charge

Enter any additional miscellaneous charge that should be applied to this tank. Enter as a dollar amount.

### Misc. Transaction Code

The transaction code defined in the MiscTran.500 file. This field should be left blank if no preset miscellaneous transactions exist for this tank.

### Tax Code

The tax code for the product delivered to this tank. Any entry must match one found in the TaxCode.500 file.

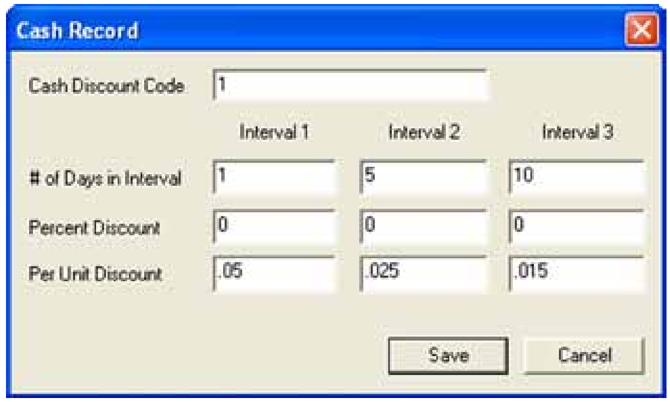
### Directions

This field is for directions to the customer tank. The text in this field is available in DMS Delivery for the drivers reference. LCLoad will not populate this field.

# Discounts and Miscellaneous Charges

## CASH.500

The Cash.500 file defines cash discounts based on timely payment. LCLoad populates these fields using data from DELLOAD.DAT, but records can be added and edited with DMS Office. The Cash Discount Code must be included in the Tank Record to be applied to transactions. There are three intervals available for discount settings.




### # of Days in Interval

The number of days after delivery in which the customer can pay their bill and receive a discount.

### Percent Discount

The percentage discount the customer will receive if payment is made within the corresponding interval.

### Per Unit Discount

The per unit reduction in price the customer will receive if payment is received within the corresponding interval.

## VOLUME.500

The Volume.500 file defines discounts based on delivery volume. The Volume Discount Code must be included in the Tank Record to be applied to transactions. There are three intervals available for discount settings, and they are applied simultaneously.

### Volume Discount Code

The code assigned to this discount. Enter a unique alphanumeric code <= 8 characters.

### # of Decimal Places

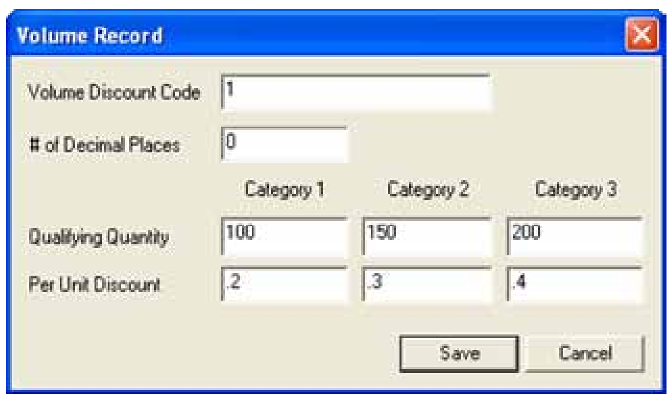
The number of decimal places in the per unit discount field.

### Qualifying Quantity

The volume threshold after which the per unit discount is applied.

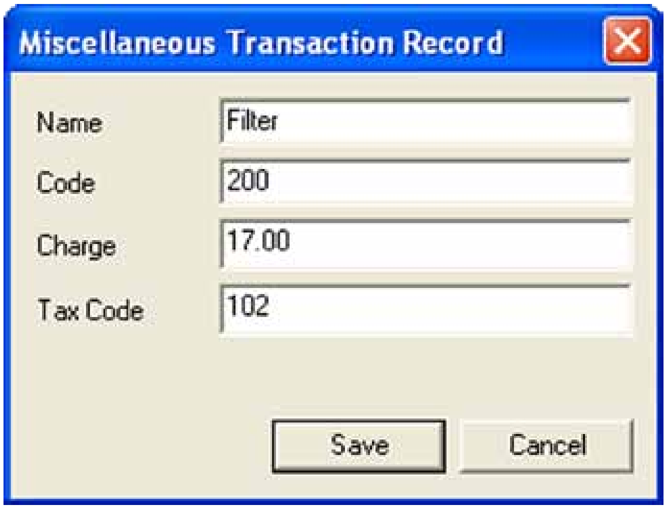
### Per Unit Discount

The discount applied to the qualifying quantity.




As an example, given the discount structure in the Volume Record example above, the pricing will be calculated as follows:

For volumes less than 100 units, the standard price associated with the customer will apply. For quantities between 100.00 and 149.99, the customer will receive a $0.20 discount off of the price per unit. For quantities between 150.00 and 199.99, the customer will receive a $0.30 discount off of the price per unit. For quantities of 200.00 or higher, the customer receives a $0.40 discount off of the price per unit.




## MISCTRAN.500

The MiscTran.500 file defines charges applied independent of delivery. The driver can choose which Miscellaneous Transaction Record to apply in DMS Delivery. These records must be created in DMS Office and loaded to DMS Delivery.

### Name

A description of the transaction. Enter an alphanumeric label <= 22 characters.

### Code

A transaction code used to identify the miscellaneous transaction in DMS Delivery. Enter an alphanumeric code <= 8 characters.

### Charge

The default amount to be charged for this transaction.

### Tax Code

The tax code associated with the miscellaneous charge. Any entry must match an existing code in TaxCode.500.

# Product Configuration

## PRODUCT CONFIGURATION

DMS Office's Product.500 and FuelType.500 label and configure products, so DMS Delivery can properly receive meter readings from the LCR-II.

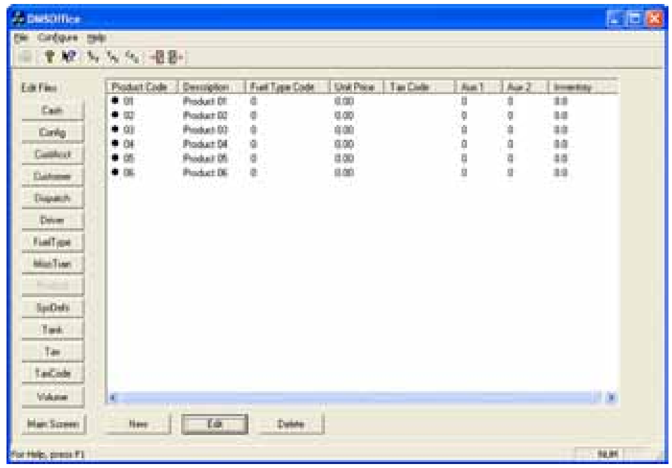
LCLoad creates a product record for every unique product code found in DELLOAD.DAT's records and enters them into Product.500. FuelType.500 is manually populated with DMS Office.

| |
|---|
| Product.500 and FuelType.500 must be set up after running LCLoad and before launching DMS Delivery. |

### LCR-II, Fueltype.500 and calibrations

At start up, DMS Delivery saves all LCR-II calibrations (4 calibrations per meter) that exist in the system. In order to correctly meter product, DMS Delivery needs to know which LCR calibration to use. FuelType.500 defines each calibration, and Product.500 chooses a FuelType.500 record (a calibration) for each product.

If the vehicle has a multi-meter system and the meters share LCR-II calibrations, DMS Delivery will prompt the driver to choose a meter.

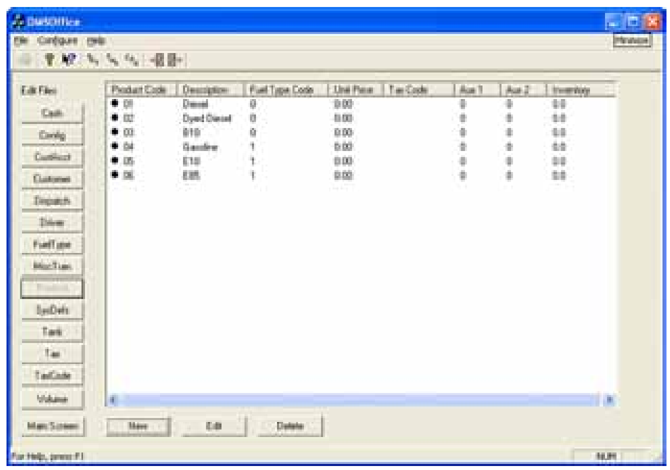


*Product.500 after LCLoad*

## PRODUCT.500

A Product.500 record contains specifications for a product. The Product.500 records are created by LCLoad, but they can be edited using DMS Office.

If your LCR-II is calibrated for more than one product, the **Fuel Type Code** field must reflect the proper FuelType.500 record. The **Description** field is often changed to the precise name of the product.



*Product.500 after LCLoad and DMS Office configuration*

### Code

Enter an alpha-numeric value <= 8 characters.
This is the value from DELLOAD.DAT.

### Description

Enter an alpha-numeric value <= 35 characters.

### Fuel Type Code

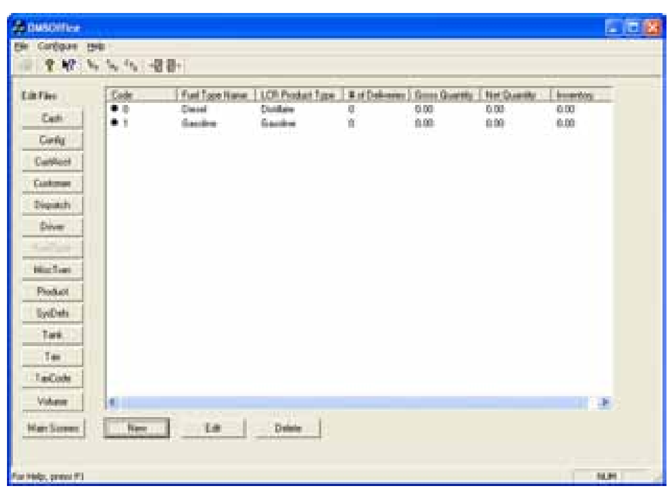
This is the Fuel Type Record with the proper LCR-II calibration for the product. Enter any integer <= 255.

### Unit Price

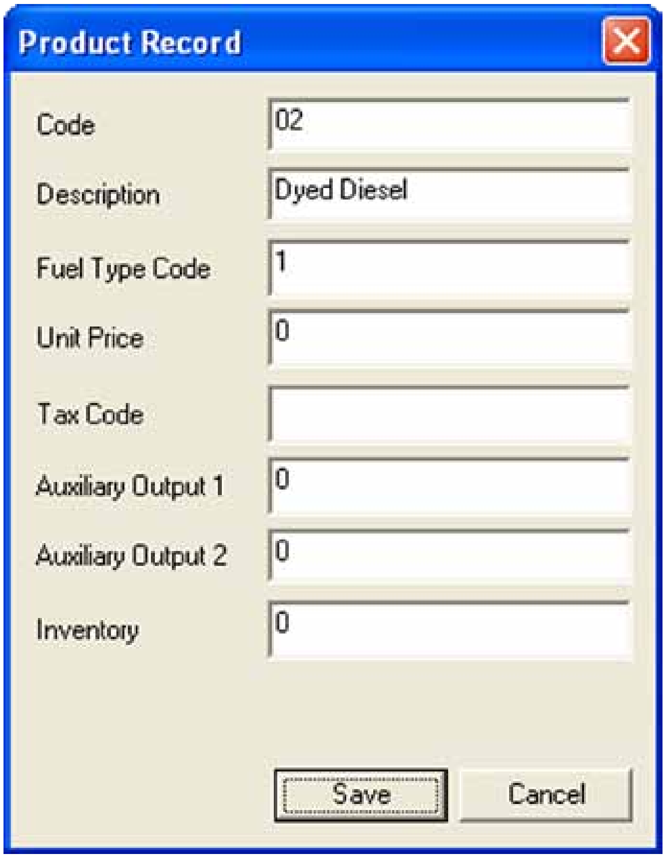
This field can be left blank. Unit Price is pulled from DELLOAD.DAT and saved in Dispatch.500

### Tax Code

This field can be left at zero. Tax Code is pulled from DELLOAD.DAT and saved in Dispatch.500.



*FuelType.500 after LCLoad and DMS Office configuration*




## PRODUCT CONFIGURATION

### Auxiliary Output 1

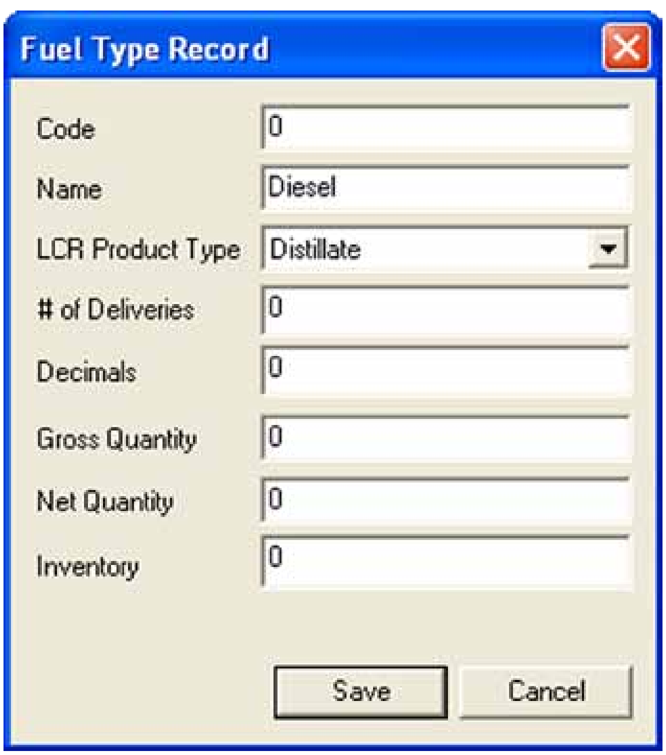
*Not Active April 2007*

### Auxiliary Output 2

*Not Active April 2007*

### Inventory

Inventory used during the current shift.




## FUELTYPE.500

A FuelType.500 record defines a group of products with the same LCR-II calibration setting. The Fuel Type Code is manually set in Product.500 to assign products the correct LCR-II calibration.

### Code

Enter a numeric value <= 255. This is the value Product.500 enters into **Fuel Type Code**.

### Name

Enter an alpha-numeric value <= 20 characters.

### LCR Product Type

A drop down menu with seven LCR-II calibration selections: **Ammonia**, **Aviation**, **Distillate**, **Gasoline**, **Methanol**, **LPG**, **Lube Oi**l, and **None**.

### # of Deliveries

The number of deliveries of this product type during the current shift. This field is generated in DMS Delivery.

### Decimals

The decimal places used in the volume fields.

### Gross Quantity

The gross quantity of this product type during the current shift. This field is generated in DMS Delivery.

### Net Quantity

The net quantity of this product type during the current shift. This field is generated in DMS Delivery.

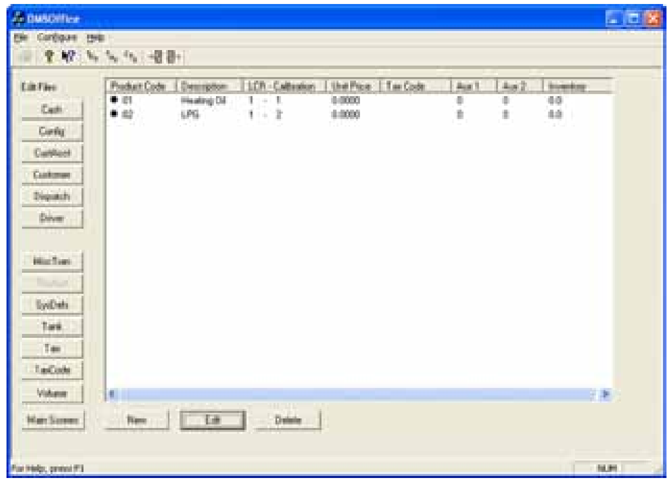
### Inventory

Inventory used during the current shift.

## MAP FROM PRODUCT TO LCR CALIBRATION

If the **Map from Product to LCR Calibration** box is checked in the Source and Destination window, you must assign products' LCR-II calibrations differently.

LCLoad still creates a list of products and assigns codes and generic descriptions, but aligning the products to the correct LCR-II calibration is done in the Product.500 not FuelType.500. In fact, the FuelType.500 window will be eliminated from the button list.

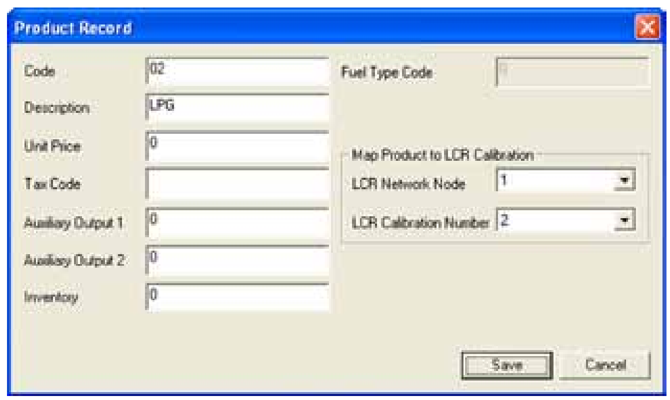


### Product.500 Window

The **Fuel Type Code** field will be replaced with a **LCR - Calibration** field. **LCR** specifies which LCR-II to read, and **Calibration** specifies the correct calibration (each LCR-II can contain four calibrations) to use.

### Product Record

The Product Record window has a **Map Product to LCR** Calibration section to enter the correct meter and calibration values.




To correctly align your product with the proper LCR-II calibration, you must enter the correct meter, **LCR Network Node** (use 1 for single meter systems), and the correct calibration setting, **LCR-II Calibration Number**.

A LCR-II calibration ticket should print this information.

## TAX CONFIGURATION

There are three tax-related .500 files: CfgTax.500, Tax.500 and TaxCode.500 These files label and structure tax values from DELLOAD.DAT for use in DMS Delivery. Any changes to these files must be made before running LCLoad.

### LCLoad and taxes

Tax.500 and TaxCode.500 are created by LCLoad using data from CfgTax.500 and DELLOAD.DAT field values. Tax.500 records specify single taxes, and TaxCode.500 records combine single taxes to form tax structures.

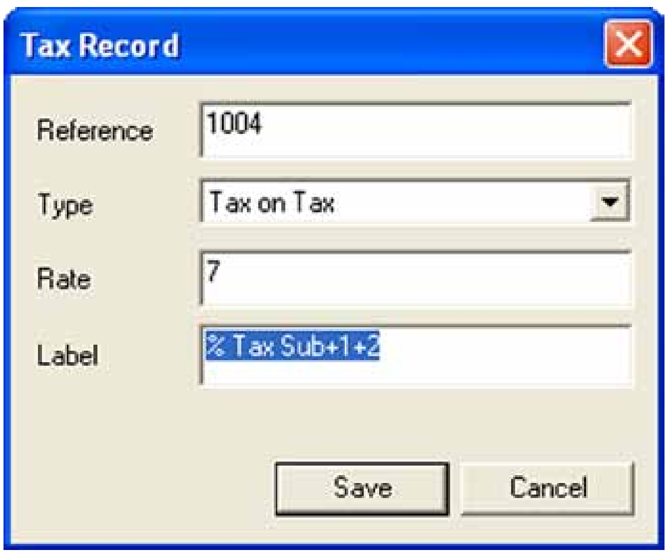
Following the highlighted fields in the examples to the right:

1. The two fields of CfgTax.500 **#5** (***Tax* Type** and **Label**) and Field 23 of DELLOAD.DAT (**Rate** in Tax.500) combine to create Tax Record #1004 (**Reference #5** in TaxCode.500). LCLoad creates a Tax Record for each unique combination of **Type**, **Rate**, and **Label**.

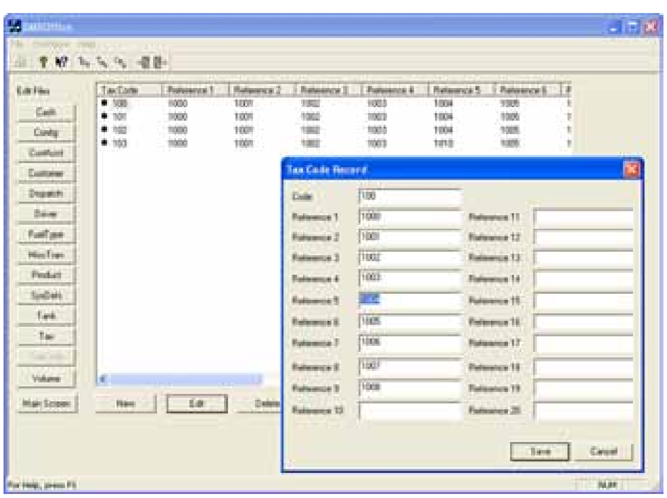
2. Tax **Reference** #1004 is a single tax used in many TaxCode.500's tax structures.

3. A Tax Code is created for every unique combination of Tax Records in DELLOAD.DAT.


*CfgTax.500*




*Tax.500*



*TaxCode.500*

If CfgTax.500 is configured correctly, after running LCLoad, Tax.500 and TaxCode.500 will not require editing unless 10 or more individual taxes are needed.

# Tax Configuration

## CFGTAX.500

The CfgTax.500 defines and labels the tax fields in the DELLOAD.DAT records. There are 9 fields in the CfgTax.500 file that correlate directly to the 9 fields in DELLOAD.DAT fields (N16 to N24). The **Tax Type** (chosen from a drop down menu) fields and the **Label** (entered as an alpanumeric value) fields can be edited to suit specific tax structures.

**CfgTax.500 must be completed before running LCLoad.**

### Type

**Percent** A percent tax on the subtotal (the value of the volume delivered times the price).

**Per Unit** A dollar amount charged per unit of product delivered.

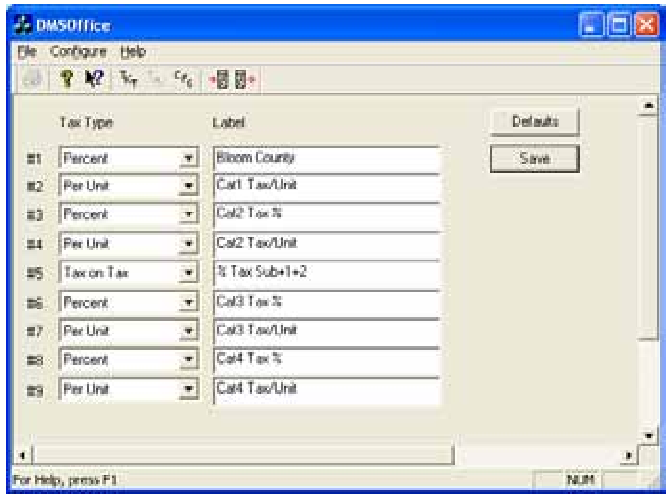
**Surcharge** A flat fee not based on volume or price.

**Tax on Tax** A calculation on the running tax total.

Click the **Save** button before leaving this window to save changes.

To return fields to default values click the **Defaults** button and then click the **Save** button

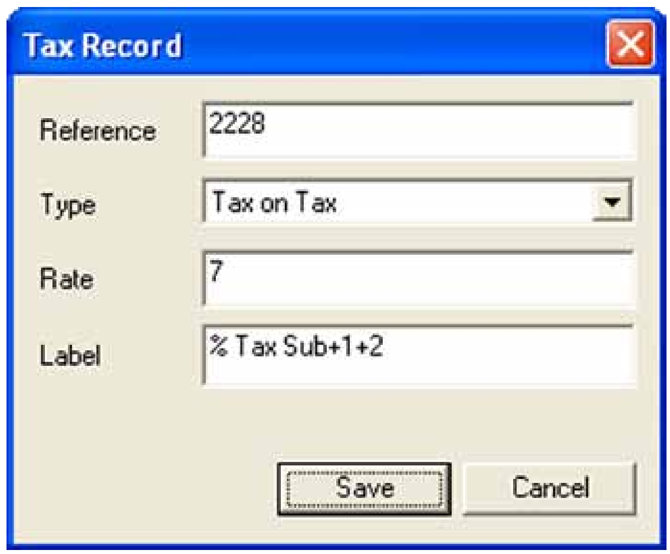
Each DELLOAD.DAT record determines if a tax is active for that account. If the DELLOAD.dat field is a zero, no tax is applied.




*CfgTax.500*

## TAX.500

The Tax.500 contains the specifications of each individual tax: the DELLOAD.DAT value (**Rate**), the type of tax designated by CfgTax.500 (**Type**), and the label designated by CfgTax.500 (**Label**). LCLoad populates the Tax.500 records and assigns them a reference number which TaxCode.500 uses to set tax structures.

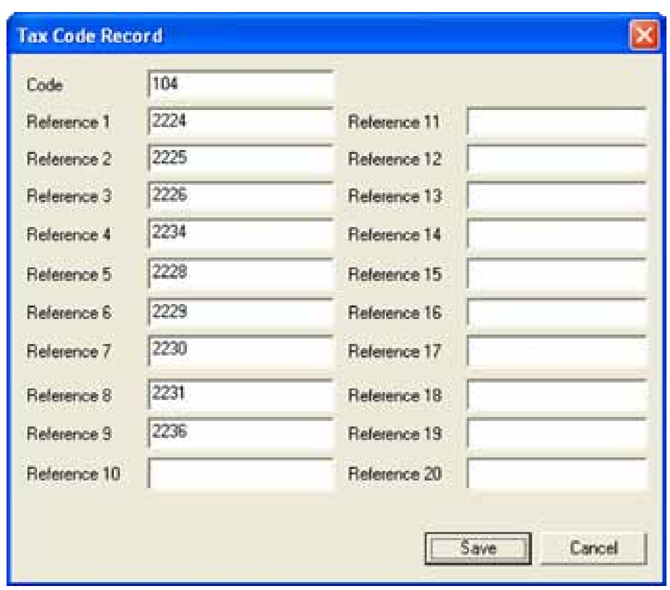



*Tax.500*

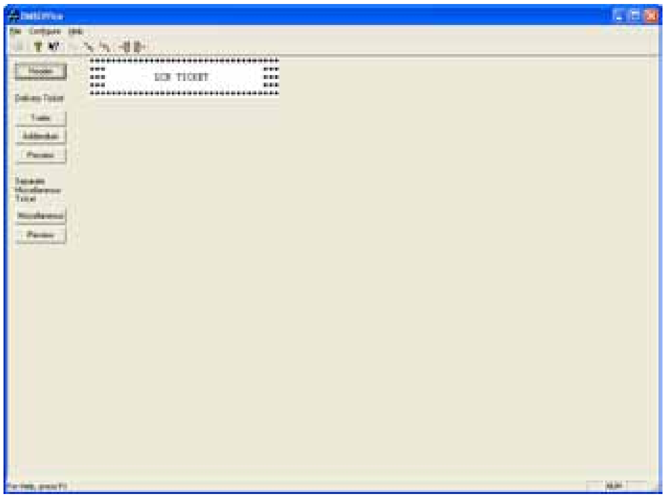
## TAXCODE.500

TaxCode.500 contains tax structures that are applied to customers and their tanks in DMS delivery. These tax structures are a sequential group of Tax Records. The Tax Code for each customer tank is saved in Dispatch.500 along with other delivery and transaction data.

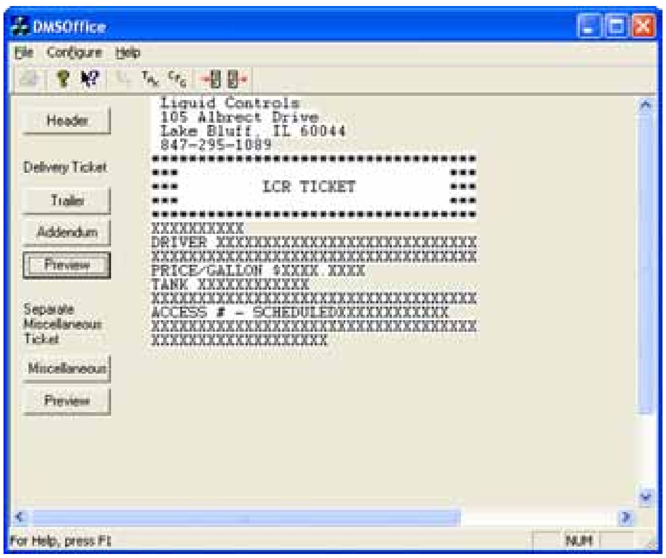
Tax Codes can be keyed in by the driver for new deliveries and miscellaneous transactions.



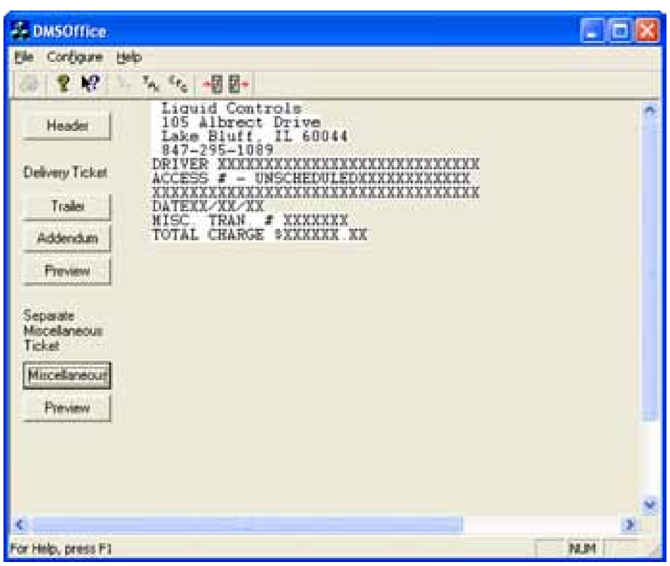

*TaxCode.500*




*Main Window*




*Main Window with Delivery Ticket Preview*




*Main Window with Miscellaneous Ticket Preview*

## TICKET CONFIGURATION MODULE

The Ticket Configuration Module (TCM) of the DMS Office program defines and configures delivery ticket printouts for DMS Delivery. To launch TCM, click on the **TKT** button of the toolbar or select the **Ticket** command under the **Configure** drop down menu.

There are three types of windows in TCM: the main ticket window, the ticket configurator window, and the record text window.

> In the ticket preview, the LCR TICKET field surrounded by asterisks represents the header entered into LCRHost and the metrological data generated by the LCR-II electronic register. SYSDEFS HEADER represents data entered into the SysDefs.500 file.

As you add to the delivery ticket, DMS Office will display the ticket layout. The length of the line will show as white space cut out of the tan background. Static information will show exactly as it will on the ticket. For example, line titles (PRICE/GALLON or TANK) and information entered as **Generic Label**s (the company address). Values unkown until delivery (driver, price/gallon value, tank) will show as **X**s.

## MAIN TICKET WINDOW

The Main Ticket Window has six buttons on the left and a whited out preview of the ticket on the right.

Clicking Header, Trailer, Addendum, and Miscellaneous buttons opens a ticket configurator window.

### Delivery Ticket

**HEADER** The header contains information printed before the metrological data is printed. It is printed on both the Delivery Ticket and the Separate Miscellaneous Ticket

**TRAILER** The trailer contains information printed immediately after the metrological data.

**ADDENDUM** The addendum contains information printed immediately after the trailer.

### Seperate Miscellaneous Ticket

**MISCELLANEOUS**

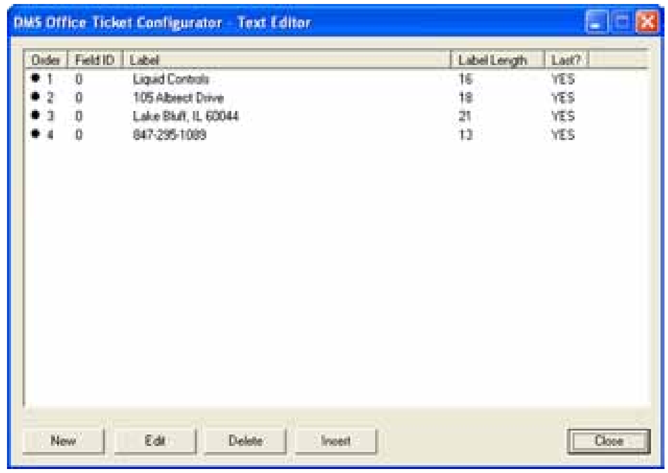
This ticket contains information printed for miscellaneous transactions. It is a separate ticket from the Delivery Ticket.

Clicking the **Preview** buttons toggles the preview window between the Delivery Ticket preview and the Separate Miscellaneous Ticket preview.

# Ticket Configuration Module

## TICKET CONFIGURATOR WINDOWS

Ticket Configurator Windows organize and add items to the DMS Delivery print out.




### New

Opens a blank record text window. If there are existing records, the newest record will be printed last.

### Edit

Opens an existing record text window for editing. To choose a record, click inside the **Order** field of that record.

### Delete

Deletes an existing record text window. To choose a record, click inside the **Order** field of that record.

### Insert

Insert a new record prior to the highlighted record.

### Close

Close configurator window.

> If the ticket is configured using the TCM, the ticket header and footer fields in the LCRHost program should be left blank.

## RECORD TEXT WINDOWS

Record Text Windows add and define lines for the Header, Trailer, Addendum, and Miscellaneous ticket sections. To open, click the buttons at the bottom of the ticket configurator windows.


### Field Type

Defines the data for the line printout. Each ticket section has a slightly different selection of field types. See page 33 for a detailed list.

### Order #

The sequential location in which the record will appear on the ticket. A numerical value <= 255.

> The number sequence in the **Order #** field is critical. It must begin with 1, and must be consecutive. If the assigned default value is changed, all Order #s must be changed accordingly. Use the **Insert** and **Delete** command to arrange records.

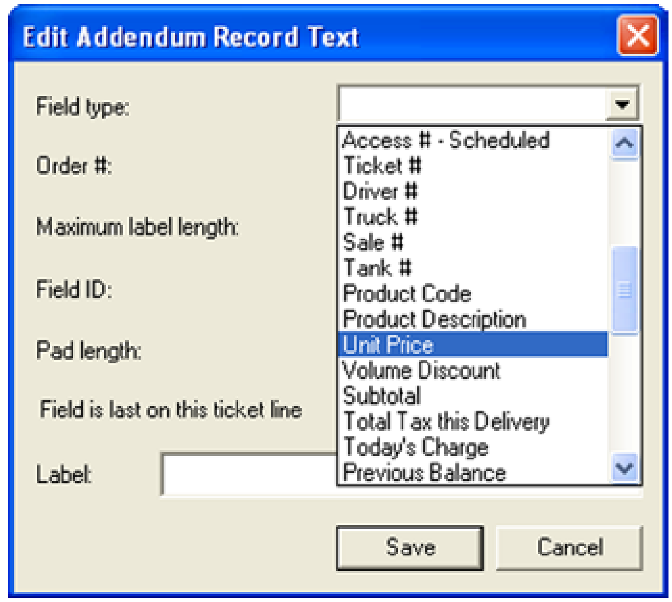
### Maximum label length

The maximum number of characters that can be included in the **Label**. This value is not adjustable.

### Field ID

An internal reference for the field type. It is not adjustable.

## RECORD TEXT WINDOWS




### Pad length

The space between the label and the value. Each line is left justified, label first. (To right justify the value, enter a value equal to the **Maximum label length**.)

### Field is last on this ticket line?

**CHECKED** The following record will be printed on the next line.

**UNCHECKED** The following record will be printed on the same line as the current record.

> The last line in a section (Header, Trailer, etc.) must end with **Field is last on this ticket line?** checked.

### Label

The text printed on the line to describe the value of the record. Some **Field Types** do not allow information in the Label field.

## FIELD TYPES

**Field Type**, in the Record Text Windows, contains a drop down menu of data that the TCM can apply to the DMS Delivery ticket printout. When a ticket is printed, DMS Delivery will print the **Label** of the data the data value itself. For example, if you choose **Unit Price**, DMS Delivery will print “PRICE/GALLON” followed by the value of the unit price “$XXX.XXX”.

Each ticket section has a slightly different selection of **FIeld Type**.

## HEADER FIELD TYPES

**GENERIC LABEL**
Selects static textual information entered in the **Label** field, such as company contact information.

**SYSDEFS HEADER LINES**
SysDefs.500 header information such as address and phone number.

**SYSDEFS FOOTER LINES**
SysDefs.500 footer fields such as “Footer 1”, “Footer 2”, etc.

**MISC. TRANS. LINES**
Miscellaneous charges applied to the delivery.

**CUSTOMER NAME**
Customer name - as it appears in the database.

**CUSTOMER ADDRESS 1**
Customer address - as it appears in the database.

**CUSTOMER ADDRESS 2**
Address 2 of the customer database.

**CUSTOMER CITY**
Customer as it is found in the customer database. (If the address was parsed when LCLoad was run.)

## HEADER FIELD TYPES

**Customer State**
Customer state as it is found in the customer database (If the address was parsed when LCLoad was run.)

**Customer Zip**
Customer zip code as it is found in the customer database. (If the address was parsed when LCLoad was run.)

**Delivery Start Date**
Date of delivery.

**Delivery Start Time**
Time of delivery.

**Access # - scheduled**
Customer access number applied to current delivery.

**Ticket #**
Current ticket number.

**Driver #**
Current driver number.

**Truck #**
Current truck number.

**Previous Balance**
Customer's accounting balance before delivery. Generated by the CustAcct.500 file.

**Access # - Unscheduled.**
Access # assigned to a new customer for current delivery.

**Account #**
Account number from CustAcct.500 file.

**Driver Name**
Current driver's name.

**Meter ID**
Meter ID set by LCRHost.

If **Price Changeable After Delivery** is checked in Config.500, all price related fields should be moved to the addendum. The trailer section prints immediately after the delivery is finished leaving no time to change the print out of the new price.

## TRAILER FIELD TYPES

The Trailer Record Text window contains **Field Types** not included with the Header Field Types.

**Delivery Tax lines**
Values taken from the Tax.500 file. The labels used in Tax.500 file will be printed on the ticket.

**Sale #**
Sale number generated by the LCR-II.

**Tank #**
Tank number applied to current delivery.

**Product Code**
Product code applied to current delivery.

**Product Description**
Product description applied to current delivery.

**Unit Price**
Unit price applied to current delivery.

**Volume Discount**
Volume discount applied to current delivery.

**Subtotal**
Subtotal of current delivery.

**Total Tax this Delivery**
Total value of the tax or taxes applied to current delivery.

**Today's Charge**
Amount charged for current delivery.

**Previous Balance**
Amount due since last delivery.

**Grand Total Due**
Total amount due. Sum of **Today's Charge** and **Previous Balance**.

**Cash Discount Date**
Cash discount date applied to current delivery. Default label is "IF PAID BY". Discount date printed after label.

**Cash Discount Amount**
Cash discount applied to current delivery.

## ADDENDUM FIELD TYPES

The Addendum Record Text window contains **Field Types** not included with the header or trailer Field Types.

### Grand Total Due

Amount due for current delivery.

### Percent Full

Percent of tank with product.

### End Use Code

Generic label populated by DELLOAD.DAT or in this record window. Driver can populate field in DMS Delivery

### Cash Received

Cash or payment for current delivery.
*Not Active April 2007*

### Check Number

Check number of payment for current delivery.
*Not Active April 2007*

### Check Received

Check amount for current delivery. Default label is "PAYMENT RECEIVED $".

*Not Active April 2007*

### Payment Type

Type of payment : Cash-1, Check-2, or Credit-3, followed by the numeric designation.

### Balance Due

Dollar amount due after payment received entered.

### Credit Balance

Credit balance of current account.

### Credit Card Payment ID

Populated by GMS i2000.

### Credit Card Auth. Code

Populated by GMS i2000 software.

### Credit Card Type

Populated by GMS i2000 software.

## MISCELLANEOUS FIELD TYPES

The Miscellaneous Record Text window contains **Field Types** not included with the header, trailer or addendum Field Types.

### Misc. Tran. #

The sale # for miscellaneous transactions tracked separately from deliveries.

### Misc. Tran. Total Charge

Total charges applied to miscellaneous transactions.

# APPENDIX

# APPENDIX
# DATA FILE FORMAT

The first section of the appendix includes examples of ASCII text files and tables describing each field. Examples from page 36 to 41 (one type of Totalizer Record and four types Dispatch records) are generated by the back office software for DMS Office. These files make up DELLOAD.DAT which LCLoad converts to .500 files for DMS Delivery. Examples from page 41 to 46 (one type of Totalizer Record, four types Delivery records and one type of Completed Miscellaneous Transactions record) are converted into text files by DMS Office for the back office software.

## QUICK TEXT FILE KEY

### Field Number

**H2** - H = Header • 2 = Sequence #

**N** - Numeric

**A** - Alphanumeric

### Field Type

**Integer** - Numeric value, no decimal point

**Floating** - Numeric value, decimal point

**A** - Alphanumeric

Numeric fields must contain a value. If the field does not have a value, use a “0”.

If an alphanumeric fields does not have a value, use a blank space “ “.

## DELLOAD.DAT

### Standard Totalizer Record

The first record in the DELLOAD.DAT file, the Totalizer Record contains data for all products. Most of the numeric fields, as well as the date and time, are set to zero, and the alphanumeric fields are blank. DMS Delivery will populate these fields in DELREAD.DAT.

### Dispatch Records

Each Dispatch Record contains account-specific data for a customer tank. This record contains all information relevant to fulfilling a particular customer’s request including preset type and amount, price, taxes, and discounts. There are four examples in this appendix. They are exclusive and not to be used together. In the examples, deviations from the original Standard Dispatch Record are in bold type.

Included Dispatch Record Examples:

**STANDARD DISPATCH RECORD**

**STANDARD DISPATCH RECORD WITH BEGINNING BALANCE**

Adds numeric field (Beginning Balance Field).

**STANDARD DISPATCH RECORD WITH EXTENDED DRIVER INSTRUCTIONS**

Adds two alphanumeric fields (Driver Instruction). Increases the size of one alphanumeric field (Driver Instruction)

**STANDARD DISPATCH RECORD WITH BEGINNING BALANCE AND EEXTENDED DRIVER INSTRUCTIONS**

Adds numeric field (Beginning Balance Field). Adds two alphanumeric fields (Driver Instruction). Increases the size of one alphanumeric field (Driver Instruction).

## DELREAD.DAT

### Standard Totalizer Record

The DELREAD.DAT Totalizer Record contains product data gathered in DMSDelivery.

### Delivery Record

Each Delivery Record contains account-specific data relevant to a particular customer tank’s completed delivery. The Dispatch Record and its corresponding completed Delivery Record are linked via the access number field There are four examples in this appendix. In the examples, deviations from the original Standard Dispatch Record are in bold type.

### Completed Miscellaneous Transactions Record

Each Miscellaneous Transaction Record contains data for a miscellaneous billable service(s) or unmetered product delivery for a customer.

Included Delivery Record Examples:

**STANDARD DELIVERY RECORD**

**STANDARD DELIVERY RECORD WITH BEGINNING BALANCE**

Adds numeric field (Beginning Balance Field)

**STANDARD DELIVERY RECORD WITH EXTENDED DRIVER INSTRUCTIONS**

Adds three alphanumeric fields ((2) Twenty-four bytes of reserved pad space, Sixteen bytes of reserved pad space).

**STANDARD DELIVERY RECORD WITH BEGINNING BALANCE AND EXTENDED DRIVER INSTRUCTIONS**

Adds numeric field (Beginning Balance Field). Adds three alphanumeric fields ((2) Twenty-four bytes of reserved pad space, Sixteen bytes of reserved pad space).

# APPENDIX

**STANDARD TOTALIZER RECORD - LCLOAD**

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 1 (Totalizer) | H1 | Integer |
| Number of Numeric Fields in the Record | 31 | H2 | Integer |
| Number of Alphabetic Fields in the Record | 4 | H3 | Integer |
| RAM Card Status | 0 (New) | N1 | Integer |
| RAM Card Indentifier | 0 | N2 | Integer |
| Unit Identifier | 0 | N3 | Integer |
| Truck Number | 0 | N4 | Integer |
| Miles Driven from Start of Shift Until Now | 0 | N5 | Floating |
| Current Odometer Reading | 0 | N6 | Floating |
| Total Net Delivered Volume (this shift) | 0 | N7 | Floating |
| Total Gross Delivered Volume (this shift) | 0 | N8 | Floating |
| First Ticket Number | 0 | N9 | Integer |
| Last Ticket Number | 0 | N10 | Integer |
| Last Sale Number | 0 | N11 | Integer |
| Last Miscellaneous Transaction Number | 0 | N12 | Integer |
| Grand Total – Net Delivered Volume (this truck) | 0 | N13 | Floating |
| Grand Total – Gross Delivered Volume (this truck) | 0 | N14 | Floating |
| Grand Total – All Sales Not Including Tax | 0 | N15 | Floating |
| Grand Total – Category 1 Percentage Tax on All Sales | 0 | N16 | Floating |
| Grand Total – Category 1 Per Unit Tax on All Sales | 0 | N17 | Floating |
| Grand Total – Category 2 Percentage Tax on All Sales | 0 | N18 | Floating |
| Grand Total – Category 2 Per Unit Tax on All Sales | 0 | N19 | Floating |
| Grand Total - % Tax on Subtotal, Category 1 & 2 Taxes | 0 | N20 | Floating |
| Grand Total – Category 3 Percentage Tax on All Sales | 0 | N21 | Floating |
| Grand Total – Category 3 Per Unit Tax on All Sales | 0 | N22 | Floating |
| Grand Total – Category 4 Percentage Tax on All Sales | 0 | N23 | Floating |
| Grand Total – Category 4 Per Unit Tax on All Sales | 0 | N24 | Floating |
| Grand Total – All Taxes on All Sales | 0 | N25 | Floating |
| Grand Total – All Sales Including All Taxes | 0 | N26 | Floating |
| Grand Total – All Miscellaneous Charges | 0 | N27 | Floating |
| Grand Total – Payment Received | 0 | N28 | Floating |
| Grand Total – Unmetered Volume Delivered | 0 | N29 | Floating |
| Grand Total – Gross Volume Not Priced | 0 | N30 | Floating |
| Grand Total – Net Volume Not Priced | 0 | N31 | Floating |
| The Date on which the First Shift Report was Run | - | A1 | Date |
| The Time at which this First Shift Report was Run | - | A2 | Time |
| The Last Date on which this RAM Card was Accessed | - | A3 | Date |
| The Last Time at which this RAM Card was Accessed | - | A4 | Time |

“1”,“31”,“4”,“0”,“13532”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“0”,“  ”,“  ”,“ ”,“  ”[CR/LF]

# APPENDIX

**STANDARD DISPATCH RECORD - LCLOAD**

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 5 (No Preset) | H1 | Integer |
| Number of Numeric Fields in this record | 17 | H2 | Integer |
| Number of Alphabetic Fields in this record | 8 | H3 | Integer |
| Access Number | 140012 | N1 | Integer |
| Product Code | 2 | N2 | Integer |
| End Use Code | 0 | N3 | Integer |
| Preset Amount | 0 | N4 | Preset |
| Product Price per Unit Volume | 0.907 | N5 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N6 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N7 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N8 | Percent |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N9 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N10 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N11 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N12 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N13 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N14 | Floating |
| Should Volume Discounts be used on this Delivery | 1 (Enabled) | N15 | Enable |
| Cash Discount Category 0=none, or 1, 2, 3 | 1 | N16 | Integer |
| Amount of Miscellaneous “Other” Charge | 100.72 | N17 | Floating |
| Text Description of Other Charge (N17) | Light Pilot | A1 | Text16 |
| Customer’s Account Number | LX-13A2 | A2 | Text8 |
| Customer Name | John Doe | A3 | Text24 |
| Customer Street Address | 1 A Street | A4 | Text24 |
| Customer Town | Hilo, HI | A5 | Text24 |
| Twenty-four bytes of reserved pad space | - | A6 | Pad24 |
| Twenty-four bytes of reserved pad space | - | A7 | Pad24 |
| Eight bytes of reserved pad space | - | A8 | Pad8 |

“5”,“17”,“8”,“140012”,“2”,“0”,“0”,“0.907”,“0”,“.05”,“2.7”,“0”,“1.25”,“0”,“0”,“0”,“0”,“1”,“1”,“100.72”,“LIGHT PILOT”,“LX-13A2”,“JOHN DOE ”,“1 A
STREET ”,“SAUSALITO, CA 94966 ”,“INVOICE WILL FOLLOW ”,“TWO BLOCKS PAST GROCERY STORE”, “ABCDEFGH”[CR/LF]

# APPENDIX

### DISPATCH RECORD WITH BEGINNING BALANCE - LCLOAD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 5 (No Preset) | H1 | Integer |
| **Number of Numeric Fields in this record** | **18** | **H2** | **Integer** |
| Number of Alphabetic Fields in this record | 8 | H3 | Integer |
| Access Number | 140012 | N1 | Integer |
| Product Code | 2 | N2 | Integer |
| End Use Code | 0 | N3 | Integer |
| Preset Amount | 0 | N4 | Preset |
| Product Price per Unit Volume | 0.907 | N5 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N6 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N7 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N8 | Percent |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N9 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N10 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N11 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N12 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N13 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N14 | Floating |
| Should Volume Discounts be used on this Delivery | 1 (Enabled) | N15 | Enable |
| Cash Discount Category 0=none, or 1, 2, 3 | 1 | N16 | Integer |
| Amount of Miscellaneous “Other” Charge | 100.72 | N17 | Floating |
| **Beginning Balance** | **71.20** | **N18** | **Floating** |
| Text Description of Other Charge (N17) | Light Pilot | A1 | Text16 |
| Customer’s Account Number | LX-13A2 | A2 | Text8 |
| Customer Name | John Doe | A3 | Text24 |
| Customer Street Address | 1 A Street | A4 | Text24 |
| Customer Town | Hilo, HI | A5 | Text24 |
| Twenty-four bytes of reserved pad space | - | A6 | Pad24 |
| Twenty-four bytes of reserved pad space | - | A7 | Pad24 |
| Eight bytes of reserved pad space | - | A8 | Pad8 |

“5”,”**18**”,”8”,”140012”,”2”,”0”,”0”,”0.907”,”0”,”.05”,”2.7”,”0”,”1.25”,”0”,”0”,”0”,”0”,”1”,”1”,”100.72”,”**51.20**”,”LIGHT PILOT “,”LX-13A2 “,”JOHN DOE “,”1 A STREET “,”SAUSALITO, CA 94966 “,”INVOICE WILL FOLLOW “,”BEHIND THE RED HOUSE”,”ABCDEFGH” [CR/LF]

# APPENDIX

### DISPATCH RECORD WITH EXTENDED DRIVER INSTRUCTIONS - LCLOAD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| **RECORD TYPE** | **46(NO PRESET)** | **H1** | **INTEGER** |
| Number of Numeric Fields in this record | 17 | H2 | Integer |
| **NUMBER OF ALPHABETIC FIELDS IN THIS RECORD** | **10** | **H3** | **INTEGER** |
| Access Number | 140012 | N1 | Integer |
| Product Code | 2 | N2 | Integer |
| End Use Code | 0 | N3 | Integer |
| Preset Amount | 0 | N4 | Preset |
| Product Price per Unit Volume | 0.907 | N5 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N6 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N7 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N8 | Percent |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N9 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N10 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N11 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N12 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N13 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N14 | Floating |
| Should Volume Discounts be used on this Delivery | 1 (Enabled) | N15 | Enable |
| Cash Discount Category 0=none, or 1, 2, 3 | 1 | N16 | Integer |
| Amount of Miscellaneous “Other” Charge | 100.72 | N17 | Floating |
| Text Description of Other Charge (N17) | Light Pilot | A1 | Text16 |
| Customer’s Account Number | LX-13A2 | A2 | Text8 |
| Customer Name | John Doe | A3 | Text24 |
| Customer Street Address | 1 A Street | A4 | Text24 |
| Customer Town | Hilo, HI | A5 | Text24 |
| **DRIVER INSTRUCTION** | **-** | **A6** | **PAD24** |
| **DRIVER INSTRUCTION** | **-** | **A7** | **PAD24** |
| **DRIVER INSTRUCTION** | **-** | **A8** | **PAD24** |
| **DRIVER INSTRUCTION** | **-** | **A9** | **PAD24** |
| **DRIVER INSTRUCTION** | **-** | **A10** | **PAD24** |

“**46**”,”17”,”**10**”,”140012”,”2”,”0”,”0”,”0.907”,”0”,”.05”,”2.7”,”0”,”1.25”,”0”,”0”,”0”,”0”,”1”,”1”,”100.72”,”LIGHT PILOT “,”LX-13A2 “,”JOHN DOE “,”1 A STREET “,”SAUSALITO, CA 94966 “,”INVOICE WILL FOLLOW “,”ABCDEFGHIJKLMNOPQRSTUVWX”,”**BEHIND THE RED HOUSE”,”ABCDEFGHIJKLMNOPQRSTUVWX”,”ABCDEFGHIJKLMNOPQRSTUVWX”** [CR/LF]

# APPENDIX

**DISPATCH RECORD WITH BEGINNING BALANCE AND EXTENDED DRIVER INSTRUCTIONS - LCLOAD**

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| **Record Type** | **46 (No Preset)** | **H1** | **Integer** |
| **Number of Numeric Fields in this record** | **18** | **H2** | **Integer** |
| **Number of Alphabetic Fields in this record** | **10** | **H3** | **Integer** |
| Access Number | 140012 | N1 | Integer |
| Product Code | 2 | N2 | Integer |
| End Use Code | 0 | N3 | Integer |
| Preset Amount | 0 | N4 | Preset |
| Product Price per Unit Volume | 0.907 | N5 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N6 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N7 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N8 | Percent |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N9 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N10 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N11 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N12 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N13 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N14 | Floating |
| Should Volume Discounts be used on this Delivery | 1 (Enabled) | N15 | Enable |
| Cash Discount Category 0=none, or 1, 2, 3 | 1 | N16 | Integer |
| Amount of Miscellaneous “Other” Charge | 100.72 | N17 | Floating |
| **Beginning Balance** | **151.20** | **N18** | **Floating** |
| Text Description of Other Charge (N17) | Light Pilot | A1 | Text16 |
| Customer’s Account Number | LX-13A2 | A2 | Text8 |
| Customer Name | John Doe | A3 | Text24 |
| Customer Street Address | 1 A Street | A4 | Text24 |
| Customer Town | Hilo, HI | A5 | Text24 |
| **Driver Instruction** | **-** | **A6** | **Pad24** |
| **Driver Instruction** | **-** | **A7** | **Pad24** |
| **Driver Instruction** | **-** | **A8** | **Pad24** |
| **Driver Instruction** | **-** | **A9** | **Pad24** |
| **Driver Instruction** | **-** | **A10** | **Pad24** |

“5”,“17”,“8”,“140012”,“2”,“0”,“0”,“0.907”,“0”,“.05”,“2.7”,“0”,“1.25”,“0”,“0”,“0”,“0”,“1”,“1”,“100.72”,“LIGHT PILOT”,“LX-13A2”,“JOHN DOE     ”,“1 A STREET     ”,“SAUSALITO, CA 94966   ”,“INVOICE WILL FOLLOW   ”,“ABCDEFGHIJKLMNOPQRSTUVWX”, ”**BEHIND THE RED HOUSE”,”ABCD EFGHIJKLMNOPQRSTUVWX”,”ABCDEFGHIJKLMNOPQRSTUVWX”** [CR/LF]

# APPENDIX

## STANDARD TOTALIZER RECORD - LCREAD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 1 (Totalizer) | H1 | Integer |
| RAM Card Status | 0 (New) | N1 | Integer |
| RAM Card Indentifier | 13532 | N2 | Integer |
| Unit Identifier | 27 | N3 | Integer |
| Truck Number | 15 | N4 | Integer |
| Miles Driven from Start of Shift Until Now | 90.7 | N5 | Floating |
| Current Odometer Reading | 83145.6 | N6 | Floating |
| Total Net Delivered Volume (this shift) | 2315.6 | N7 | Floating |
| Total Gross Delivered Volume (this shift) | 2389.4 | N8 | Floating |
| First Ticket Number | 48365 | N9 | Integer |
| Last Ticket Number | 48443 | N10 | Integer |
| Last Sale Number | 48365 | N11 | Integer |
| Last Miscellaneous Transaction Number | 48998 | N12 | Integer |
| Grand Total – Net Delivered Volume (this truck) | 349498.7 | N13 | Floating |
| Grand Total – Gross Delivered Volume (this truck) | 352356.0 | N14 | Floating |
| Grand Total – All Sales Not Including Tax | 72.47 | N15 | Floating |
| Grand Total – Category 1 Percentage Tax on All Sales | 1.0 | N16 | Floating |
| Grand Total – Category 1 Per Unit Tax on All Sales | 0.72 | N17 | Floating |
| Grand Total – Category 2 Percentage Tax on All Sales | 0.37 | N18 | Floating |
| Grand Total – Category 2 Per Unit Tax on All Sales | 0.27 | N19 | Floating |
| Grand Total - % Tax on Subtotal, Category 1 & 2 Taxes | 0.99 | N20 | Floating |
| Grand Total – Category 3 Percentage Tax on All Sales | 0.37 | N21 | Floating |
| Grand Total – Category 3 Per Unit Tax on All Sales | 0.27 | N22 | Floating |
| Grand Total – Category 4 Percentage Tax on All Sales | 0.37 | N23 | Floating |
| Grand Total – Category 4 Per Unit Tax on All Sales | 0.27 | N24 | Floating |
| Grand Total – All Taxes on All Sales | 1.53 | N25 | Floating |
| Grand Total – All Sales Including All Taxes | 74.00 | N26 | Floating |
| Grand Total – All Miscellaneous Charges | 0.00 | N27 | Floating |
| Grand Total – Payment Received | 75.00 | N28 | Floating |
| Grand Total – Unmetered Volume Delivered | 0.00 | N29 | Floating |
| Grand Total – Gross Volume Not Priced | 0.00 | N30 | Floating |
| Grand Total – Net Volume Not Priced | 0.00 | N31 | Floating |
| The Date on which the First Shift Report was Run | 04/17/95 | A1 | Date |
| The Time at which this First Shift Report was Run | 08:27:49 | A2 | Time |
| The Last Date on which this RAM Card was Accessed | 04/17/95 | A3 | Date |
| The Last Time at which this RAM Card was Accessed | 08:41:31 | A4 | Time |

“1”,“1”,“13532”,“27”,“15”,“90.7”,“83145.6”,“2315.6”,“2389.4”,“48365”,“48443”,“48365”,“48998”,“349498.7”,“352356.0”,“72.47”,“1.0”,“0.72”,“0”,“0”,“0”,“
0.37”,“0.27”,“0.99”,“0.37”,“0.27”,“0.37”,“0.27”,“1.53”,“74.00”,“0.00”,“75.00”,“0.00”,“0.00”,“0.00”,“4/17/07”,“08:27:49”,“4/17/07”,“12:22:31”[CR/LF]

# APPENDIX

**STANDARD DELIVERY RECORD - LCREAD**

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 6 (Scheduled) | H1 | Integer |
| Access Number | 140012 | N1 | Integer |
| Gross Volume | 175.34 | N2 | Floating |
| Net Volume | 172.3 | N3 | Floating |
| Average Temperature During this Delivery | 52.3 | N4 | Floating |
| Ticket Number | 48365 | N5 | Integer |
| Sale Number | 48365 | N6 | Integer |
| Operator Number | 26 | N7 | Integer |
| Product Code | 2 | N8 | Integer |
| End Use Code | 0 | N9 | Integer |
| Odometer Reading when this Delivery Started | 83137.5 | N10 | Floating |
| Odometer Change during this Delivery | 0.7 | N11 | Floating |
| Price per Unit Volume | 0.907 | N12 | Floating |
| Subtotal (Price of Product Without Tax) | 156.28 | N13 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N14 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N15 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N16 | Floating |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N17 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N18 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N19 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N20 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N21 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N22 | Floating |
| Total Tax for this Delivery | 12.84 | N23 | Floating |
| Monetary Discount Applied for Volume Use | 10.00 | N24 | Floating |
| Miscellaneous Charge | 100.72 | N25 | Floating |
| Total Charge This Delivery | 269.84 | N26 | Floating |
| Cash Discount | 19.84 | N27 | Floating |
| Payment Received | 250.00 | N28 | Floating |
| Payment Method Cash=1, Check=2, Credit=3 | 1 (Cash) | N29 | Integer |
| Balance Due | -10.00 | N30 | Floating |
| Customer’s Tank Percent Full | 97.23 | N31 | Floating |
| Customer’s Account Number | LX-13A2 | A1 | Text8 |
| The Date on which this Delivery Started | 04/17/95 | A2 | Date |
| The Time at which this Delivery Started | 08:27:49 | A3 | Time |
| The Date on which this Delivery was Completed | 04/17/95 | A4 | Date |
| The Time at which this Delivery was Completed | 08:41:31 | A5 | Time |

“6”,”140012”,”175.34”,”172.3”,”52.3”,”48365”,”48365”,”26”,”2”,”0”,”83137.5”,”0.7”,”0.907”,”156.28”,”0”,”0.05”,”2.7”,”0”,”1.25”,”0”,”0”,”0”,”0”,”12.84”,”10
”,”100.72”,”269.84”,”19.84”,”250”,”1”,”-10”,”97.23”,”LX-13A2 “,”04/17/95”,”08:27:49”,”04/17/95”,”08:41:31”[CR/LF]

# APPENDIX

## DELIVERY RECORD WITH BEGINNING BALANCE - LCREAD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 6 (Scheduled) | H1 | Integer |
| Access Number | 140012 | N1 | Integer |
| Gross Volume | 175.34 | N2 | Floating |
| Net Volume | 172.3 | N3 | Floating |
| Average Temperature During this Delivery | 52.3 | N4 | Floating |
| Ticket Number | 48365 | N5 | Integer |
| Sale Number | 48365 | N6 | Integer |
| Operator Number | 26 | N7 | Integer |
| Product Code | 2 | N8 | Integer |
| End Use Code | 0 | N9 | Integer |
| Odometer Reading when this Delivery Started | 83137.5 | N10 | Floating |
| Odometer Change during this Delivery | 0.7 | N11 | Floating |
| Price per Unit Volume | 0.907 | N12 | Floating |
| Subtotal (Price of Product Without Tax) | 156.28 | N13 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N14 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N15 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N16 | Floating |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N17 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N18 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N19 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N20 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N21 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N22 | Floating |
| Total Tax for this Delivery | 12.84 | N23 | Floating |
| Monetary Discount Applied for Volume Use | 10.00 | N24 | Floating |
| Miscellaneous Charge | 100.72 | N25 | Floating |
| **Beginning Balance** | **514.20** | **N26** | **Floating** |
| Total Charge This Delivery | 269.84 | N27 | Floating |
| Cash Discount | 19.84 | N28 | Floating |
| Payment Received | 250.00 | N29 | Floating |
| Payment Method Cash=1, Check=2, Credit=3 | 1 (Cash) | N30 | Integer |
| Balance Due | -10.00 | N31 | Floating |
| Customer's Tank Percent Full | 97.23 | N32 | Floating |
| Customer's Account Number | LX-13A2 | A1 | Text8 |
| The Date on which this Delivery Started | 04/17/95 | A2 | Date |
| The Time at which this Delivery Started | 08:27:49 | A3 | Time |
| The Date on which this Delivery was Completed | 04/17/95 | A4 | Date |
| The Time at which this Delivery was Completed | 08:41:31 | A5 | Time |

“6”,”140012”,”175.34”,”172.3”,”52.3”,”48365”,”48365”,”26”,”2”,”0”,”83137.5”,”0.7”,”0.907”,”156.28”,”0”,”0.05”,”2.7”,”0”,”1.25”,”0”,”0”,”0”,”0”,”12.84”,”10
”,”100.72”,”51.20”,”321.04”,”19.84”,”250.00”,”1”,”71.04”,”97.23”,”LX-13A2 “,”04/17/95”,”08:27:49”,”04/17/95”,”08:41:31”[CR/LF]

# APPENDIX

## DELIVERY RECORD WITH EXTENDED DRIVER INSTRUCTIONS - LCREAD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| **Record Type** | **47 (Scheduled)** | **H1** | **Integer** |
| Access Number | 140012 | N1 | Integer |
| Gross Volume | 175.34 | N2 | Floating |
| Net Volume | 172.3 | N3 | Floating |
| Average Temperature During this Delivery | 52.3 | N4 | Floating |
| Ticket Number | 48365 | N5 | Integer |
| Sale Number | 48365 | N6 | Integer |
| Operator Number | 26 | N7 | Integer |
| Product Code | 2 | N8 | Integer |
| End Use Code | 0 | N9 | Integer |
| Odometer Reading when this Delivery Started | 83137.5 | N10 | Floating |
| Odometer Change during this Delivery | 0.7 | N11 | Floating |
| Price per Unit Volume | 0.907 | N12 | Floating |
| Subtotal (Price of Product Without Tax) | 156.28 | N13 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N14 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N15 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N16 | Floating |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N17 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N18 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N19 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N20 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N21 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N22 | Floating |
| Total Tax for this Delivery | 12.84 | N23 | Floating |
| Monetary Discount Applied for Volume Use | 10.00 | N24 | Floating |
| Miscellaneous Charge | 100.72 | N25 | Floating |
| Total Charge This Delivery | 269.84 | N26 | Floating |
| Cash Discount | 19.84 | N27 | Floating |
| Payment Received | 250.00 | N28 | Floating |
| Payment Method Cash=1, Check=2, Credit=3 | 1 (Cash) | N29 | Integer |
| Balance Due | -10.00 | N30 | Floating |
| Customer’s Tank Percent Full | 97.23 | N31 | Floating |
| Customer’s Account Number | LX-13A2 | A1 | Text8 |
| The Date on which this Delivery Started | 04/17/95 | A2 | Date |
| The Time at which this Delivery Started | 08:27:49 | A3 | Time |
| The Date on which this Delivery was Completed | 04/17/95 | A4 | Date |
| The Time at which this Delivery was Completed | 08:41:31 | A5 | Time |
| **Twenty-four bytes of reserved pad space** | **-** | **A6** | **Pad24** |
| **Twenty-four bytes of reserved pad space** | **-** | **A6** | **Pad24** |
| **Sixteen bytes of reserved pad space** | **-** | **A6** | **Pad24** |

See page 46 for delivery record example

# APPENDIX

## DELIVERY RECORD WITH BEGINNING BALANCE AND EXTENDED DRIVER INSTRUCTIONS - LCREAD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| **RECORD TYPE** | **47 (SCHEDULED)** | **H1** | **INTEGER** |
| Access Number | 140012 | N1 | Integer |
| Gross Volume | 175.34 | N2 | Floating |
| Net Volume | 172.3 | N3 | Floating |
| Average Temperature During this Delivery | 52.3 | N4 | Floating |
| Ticket Number | 48365 | N5 | Integer |
| Sale Number | 48365 | N6 | Integer |
| Operator Number | 26 | N7 | Integer |
| Product Code | 2 | N8 | Integer |
| End Use Code | 0 | N9 | Integer |
| Odometer Reading when this Delivery Started | 83137.5 | N10 | Floating |
| Odometer Change during this Delivery | 0.7 | N11 | Floating |
| Price per Unit Volume | 0.907 | N12 | Floating |
| Subtotal (Price of Product Without Tax) | 156.28 | N13 | Floating |
| Category 1 Tax (Expressed as % of Subtotal) | 0.0 | N14 | Floating |
| Category 1 Tax (Expressed as $ per Unit Volume) | 0.05 | N15 | Floating |
| Category 2 Tax (Expressed as % of Subtotal) | 2.7 | N16 | Floating |
| Category 2 Tax (Expressed as $ per Unit Volume) | 0.0 | N17 | Floating |
| % Tax on Subtotal, Category 1 & Category 2 Taxes | 1.25 | N18 | Floating |
| Category 3 Tax (Expressed as % of Subtotal) | 0.0 | N19 | Floating |
| Category 3 Tax (Expressed as $ per Unit Volume) | 0.0 | N20 | Floating |
| Category 4 Tax (Expressed as % of Subtotal) | 0.0 | N21 | Floating |
| Category 4 Tax (Expressed as $ per Unit Volume) | 0.0 | N22 | Floating |
| Total Tax for this Delivery | 12.84 | N23 | Floating |
| Monetary Discount Applied for Volume Use | 10.00 | N24 | Floating |
| Miscellaneous Charge | 100.72 | N25 | Floating |
| **BEGINNING BALANCE** | **51.25** | **N26** | **FLOATING** |
| Total Charge This Delivery | 269.84 | N27 | Floating |
| Cash Discount | 19.84 | N28 | Floating |
| Payment Received | 250.00 | N29 | Floating |
| Payment Method Cash=1, Check=2, Credit=3 | 1 (Cash) | N30 | Integer |
| Balance Due | -10.00 | N31 | Floating |
| Customer’s Tank Percent Full | 97.23 | N32 | Floating |
| Customer’s Account Number | LX-13A2 | A1 | Text8 |
| The Date on which this Delivery Started | 04/17/95 | A2 | Date |
| The Time at which this Delivery Started | 08:27:49 | A3 | Time |
| The Date on which this Delivery was Completed | 04/17/95 | A4 | Date |
| The Time at which this Delivery was Completed | 08:41:31 | A5 | Time |
| **TWENTY-FOUR BYTES OF RESERVED PAD SPACE** | **-** | **A6** | **PAD24** |
| **TWENTY-FOUR BYTES OF RESERVED PAD SPACE** | **-** | **A6** | **PAD24** |
| **SIXTEEN BYTES OF RESERVED PAD SPACE** | **-** | **A6** | **PAD24** |

See page 46 for delivery record example

# APPENDIX

## DELIVERY RECORD WITH EXTENDED DRIVER INSTRUCTIONS - LCREAD

See page 44 for table

“47”,”140012”,”175.34”,”172.3”,”52.3”,”48365”,”48365”,”26”,”2”,”0”,”83137.5”,”0.7”,”0.907”,”156.28”,”0”,”0.05”,”2.7”,”0”,”1.25”,”0”,”0”,”0”,”0”,”12.84”,”10”,”100.72”,”269.84”,”19.84”,”250”,”1”,”-10”,”97.23”,”LX-13A2 “,”04/17/95”,”08:27:49”,”04/17/95”,”08:41:31”,” ”,” ”,” ”[CR/LF]

## DELIVERY RECORD WITH BEGINNING BALANCE AND EXTENDED DRIVER INSTRUCTION - LCREAD

See page 45 for table

“47”,”140012”,”175.34”,”172.3”,”52.3”,”48365”,”48365”,”26”,”2”,”0”,”83137.5”,”0.7”,”0.907”,”156.28”,”0”,”0.05”,”2.7”,”0”,”1.25”,”0”,”0”,”0”,”0”,”12.84”,”10”,”100.72”,”51.20”,”269.84”,”19.84”,”250”,”1”,”-10”,”97.23”,”LX-13A2 “,”04/17/95”,”08:27:49”,”04/17/95”,”08:41:31”,” ”,” ”,” ”[CR/LF]

## COMPLETED MISCELLANEOUS TRANSACTIONS RECORD

| FIELD NAME | EXAMPLE | FIELD NUMBER | FIELD TYPE |
|---|---|---|---|
| Record Type | 8 (Misc) | H1 | Integer |
| Miscellaneous Transaction Access Number | 1 | N1 | Integer |
| Transaction Code | 33 | N2 | Integer |
| Ticket Number | 48998 | N3 | Integer |
| Miscellaneous Transaction Number | 48998 | N4 | Integer |
| Current Odometer Reading | 83137.5 | N5 | Floating |
| Miscellaneous Transaction Taxable Monetary Amount | 100.00 | N6 | Floating |
| Tax (Expressed as % of Subtotal) | 3.5 | N7 | Floating |
| Miscellaneous Transaction Non-taxable Amount | 100.00 | N8 | Floating |
| Total Charge | 203.50 | N9 | Floating |
| Payment Received | 150.00 | N10 | Floating |
| Payment Method Cash=1, Check=2, Credit=3 | 2 (Check) | N11 | Integer |
| Unmetered Volume Delivered | 0.00 | N12 | Floating |
| The Date on which this Service was Rendered | 04/17/95 | A1 | Date |
| The Time at which this Service was Rendered | 08:41:31 | A2 | Time |

“8”,“1”,“33”,“48998”,“48998”,“83137.5”,“100”,“3.5”,“100”,“203.5”,“150”,“2”,“0”,“04/17/95”,“08:41:31”[CR/LF]

# APPENDIX

## DMS VERSION COMPATIBILITY

| DMS OFFICE | | DMS DELIVERY |
|---|---|---|
| 1.00 | | 1.00 |
| 1.01 | | 1.01 |
| 1.01 | | 1.02 |
| 1.01 | | 1.03 |
| 1.02 | | 1.04 |
| 1.03 | | 1.05 |
| 1.04 | | 1.06 |
| 1.04.03 | | 1.06.05 |
| 1.04.04 | | 1.06.06 |
| 1.05 | | 1.07 |
| 1.06 | | 1.08 |
| 1.06.01 | | 1.08.01 |
| 1.07 | | 1.09 |
| 1.07.01 | | 1.09.01 |
| 1.08 | | 1.10 |
| 1.08.01 | | 1.10.01 |
| 1.08.02 | | 1.10.02 |
| 1.08.02 | | 1.10.08 |
| 1.11 | | 1.11 |

## COMMON ERROR MESSAGES

**Parameter Error**
Record format does not match the file. A software upgrade with old files can cause this error.

**Open Error on File**
File protection possibly activated.

**Write Error**
Write protection possibly activated.

**File not Found**
File does not exist in database.

**Record not Found**
Record does not exist in database.

**Duplicate Key Value**
Code or defining value already exists. Records with codes must have unique codes.

# APPENDIX

## BATCH FILES

By creating batch files in DOS, the transfer of files back and forth between DMS Delivery and the back office software can be reduced to a one click process. LC$^3$ (Liquid Controls previous data management system) was run in this manner.

### Command Line Parameters

```
=================================================================
======
       CONSOLE APPLICATION : DMSLCLoad
=================================================================
======
This application can be invoked by a batch file. Error messages and
diagnostic messages will be printed to "DMSLCLoad.txt". This file
will be created in the same folder that the application is in.

This program can be called in three ways. For the examples below,
it is assumed that the executable is in the following folder:

     c:\DMS\

 1) The simplest method of calling this program:

     c:\DMS>DMSLCLoad

The program attempts to convert c:\DMS\DELLOAD.DAT into 500 files.
The 500 files will be created within the c:\DMS\ folder.

 2) To change the name of the LC3-format dispatch file, add the file
    name as an argument to the command-line:

     c:\DMS>DMSLCLoad SAMPLE.FIL

The program attempts to convert c:\DMS\SAMPLE.FIL into 500 files.
The 500 files will be created within the c:\DMS\ folder.

 3) If the executable and LC3-format dispatch file are in different
    directories (for example, if the dispatch file is in
    c:\DMS\Database\ ):

     c:\DMS>DMSLCLoad c:\\DMS\\Database\\SAMPLE.FIL

The program attempts to convert c:\DMS\Database\SAMPLE.FIL into
500 files. The 500 files will be created within the c:\DMS\Database\
folder.
=================================================================
======
       CONSOLE APPLICATION : DMSLCRead
=================================================================
======
```

# APPENDIX

This application can be invoked by a batch file. Error messages and diagnostic messages will be printed to “DMSLCRead.txt”. This file will be created in the same folder that the application is in. This program can be called in three ways. For the examples below, it is assumed that the executable is in the following folder:

```
c:\DMS\
```

1) The simplest method of calling this program:

   ```
   c:\DMS>DMSLCRead
   ```

   The program attempts to convert c:\DMS\COMPTRAN.TRN and c:\DMS\TOTALS.TRN into c:\DMS\DELREAD.DAT.

2) To change the name of the LC3-format delivery file, add the file name as an argument to the command-line:

   ```
   c:\DMS>DMSLCRead OUT.TXT
   ```

The program attempts to convert c:\DMS\COMPTRAN.TRN and c:\DMS\TOTALS.TRN into c:\DMS\OUT.TXT.

3) If the executable and TRN files are in different directories (for example, if COMPTRAN.TRN and TOTALS.TRN are in c:\DMS\Output\):

   ```
   c:\DMS>DMSLCRead c:\\DMS\\Output\\OUT.TXT
   ```

The program attempts to convert c:\DMS\Output\COMPTRAN.TRN and c:\DMS\Output\TOTALS.TRN into C:\DMS\Output\OUT.TXT.

# APPENDIX

## Sample Batch File

```
Rem -------------------------------------------------------------
-
Rem The following assumes that the batch file is located in C:\DMS\
Rem -------------------------------------------------------------
-

Rem -------------------------------------------------------
Rem Copy the file from the network to the local folder.
Rem -------------------------------------------------------

if exist H:\DMS_FILES\DELLOAD.DAT copy H:\DMS_FILES\DELLOAD.DAT
*.* /v /y

Rem ----------------------------
Rem Generate the database files.
Rem ----------------------------

DMSLCLOAD

Rem -----------------------------------
Rem Copy the database files to the USB.
Rem -----------------------------------

if exist CASH.500 copy CASH.500 E:\DMS\*.* /v /y
if exist CUSTACCT.500 copy CUSTACCT.500 E:\DMS\*.* /v /y
if exist CUSTOMER.500 copy CUSTOMER.500 E:\DMS\*.* /v /y
if exist DISPATCH.500 copy DISPATCH.500 E:\DMS\*.* /v /y
if exist DRIVER.500 copy DRIVER.500 E:\DMS\*.* /v /y
if exist FUELTYPE.500 copy FUELTYPE.500 E:\DMS\*.* /v /y
if exist MISCTRAN.500 copy MISCTRAN.500 E:\DMS\*.* /v /y
if exist PRODUCT.500 copy PRODUCT.500 E:\DMS\*.* /v /y
if exist SYSDEFS.500 copy SYSDEFS.500 E:\DMS\*.* /v /y
if exist TANK.500 copy TANK.500 E:\DMS\*.* /v /y
if exist TAX.500 copy TAX.500 E:\DMS\*.* /v /y
if exist TAXCODE.500 copy TAXCODE.500 E:\DMS\*.* /v /y
if exist VOLUME.500 copy VOLUME.500 E:\DMS\*.* /v /y
```

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