KNIGHT

IDEX
IDEX CORPORATION

WinReporter Version 4.1
Instruction Manual

TABLE OF CONTENTS

⚠ **CAUTION: Wear protective clothing and eyewear when dispensing chemicals or other materials. Observe safety handling instructions (MSDS) of chemical mfrs.**

⚠ **CAUTION: To avoid severe or fatal shock, always disconnect main power when servicing the unit.**

⚠ **CAUTION: When installing any equipment, ensure that all national and local safety, electrical, and plumbing codes are met.**

GETTING STARTED

Thank you for your purchase of Knight Reporter software. This comprehensive and user-friendly program will make your PC a valuable tool for printing, programming, and viewing the operation of Knight-Trak, Chem-Trak, and OP Global dispensing system networks. For added versatility, the software can be used on-site or off-site (via modem), and will run on either a standard desktop PC or laptop.

While using Reporter software, it is recommended to have a copy of the programming manual handy for the type of dispenser(s) you are working with. The dispenser programming manual will have additional information about each feature or operating parameter to better explain their functions. It will also be helpful to understand how to program various settings at the dispenser keypad to enhance your overall knowledge of the system.

Before attempting to install this program, make sure there is an open com port on your computer to communicate with the KCI-6000 Computer Interface (or RM-6000 Reporter Module). If any other device (mouse, modem, etc.) is assigned to your com port, Reporter cannot communicate with a dispenser network. Other system requirements are listed below.

- The PC must have a default printer driver installed to print, view, or save reports to the PC.

- You must have at least 10 megabytes of space on your hard drive for a complete installation.

- Reporter Software is compatible with Windows versions 98, Me, NT4, 2000, XP and Windows 7 & 8.

Installing Reporter Software

(1) Turn on computer and monitor.

(2) Start Windows.

(3) Turn off all other Windows applications and network connections.

(4) Insert Reporter CD into the appropriate drive on your computer.

(5) If the installation utility does not start automatically (after a short time) click on the Windows Start button, then click on Run.

(6) In the "Open" box, type x:setup then click OK (where x represents the drive letter of your CD-ROM).

(7) As Reporter Software is installed, follow the instructions on your screen.

(8) If using Windows 7 or 8 you need to do the following:

> After installing right click the icon for WinReporter and then click properties.

> On the compatibility tab it needs to be set to run in compatibility mode for "Windows XP SP3".

> Also check the check box "Run this program as an administrator".

Uninstalling Reporter Software

There is an uninstall utility that is put onto your PC when you run Reporter software. Should it become necessary to uninstall Reporter software, the following steps will remove the program and return your PC to its original state (before Reporter was installed).

(1) Go to Windows Control Panel.

(2) Double-click on Add/Remove Programs.

(3) Select WinReporter from the list, then click the Add/Remove button.

(4) Follow the prompts on your screen to un-install Reporter Software.

SETTING UP THE NETWORK

To run Reporter Software on-line with a dispenser requires the use of a KCI-6000 or RM-6000I interface module (detailed below). A USB cable is provided with the software package and should be applicable for most applications. A driver disk is also included to setup your PC for use with the USB connection on the KCI-6000 module.

Note: If using the optional hardware key cable, you must connect it to a working serial com port on your computer. The program automatically detects the serial com port on your PC that the cable is connected to. If your system has difficulty locating the hardware cable, contact Knight for assistance.

Connect the PC to the KCI-6000 (or RM-6000) using the appropriate cable. See wiring diagram to the right for details. Apply power to the KCI-6000 or RM-6000 by connecting the network cable from the dispenser network to the dispenser interface port. By default, the KCI-6000 is the selected computer interface device. If an RM-6000 is used, you must choose it as the computer interface device in the com port configuration screen.

KCI-6000 Computer Interface

- The KCI-6000 allows for faster printing and data transfers.

- The KCI-6000 does not allow storage of dispenser files.

- The KCI-6000 allows WinReporter to communicate with any version of dispenser (backwards compatible).

- A standard USB cable can be used to connect directly to the KCI-6000 (models built starting June, 2005).
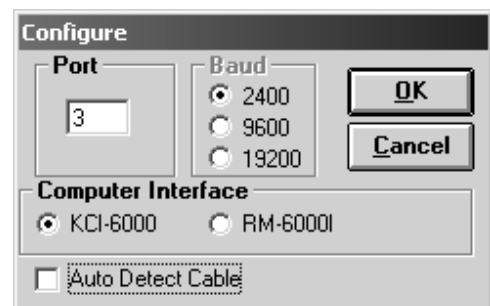
RM-6000 Module

- The RM-6000 Reporter Module is a passive interface when installed on site. There is no real need to transfer files to or from the RM module in a permanent installation such as in your customers PC.

- For users that wish to use the RM-6000 Reporter Module to transfer files and reports from the field to an office PC for report printing and archiving, use Reporter Software to move and delete files in the RM file directory.

- The RM-6000 can only communicate with older Knight-Trak II dispenser (no other systems).

- Requires the use of the hardware key cable only (cannot connect directly with a standard USB cable).

Notes on USB connection

- <u>PREFERRED:</u> The latest version of the Knight KCI-6000 has USB interface capability. All you will need to do is install the drivers from the CD provided with the KCI-6000. An instruction sheet is also included with the KCI-6000 to guide you through proper setup.

- <u>ALTERNATIVE:</u> If necessary, older KCI modules (9-pin only) can be connected to a standard USB port. An adapter kit (available from your PC vendor) will allow your USB port to function as a standard com port. Install the kit according to the instructions that come with it. Be sure to find out which com port number the USB port will function as, since this port number will be assigned in the configuration.
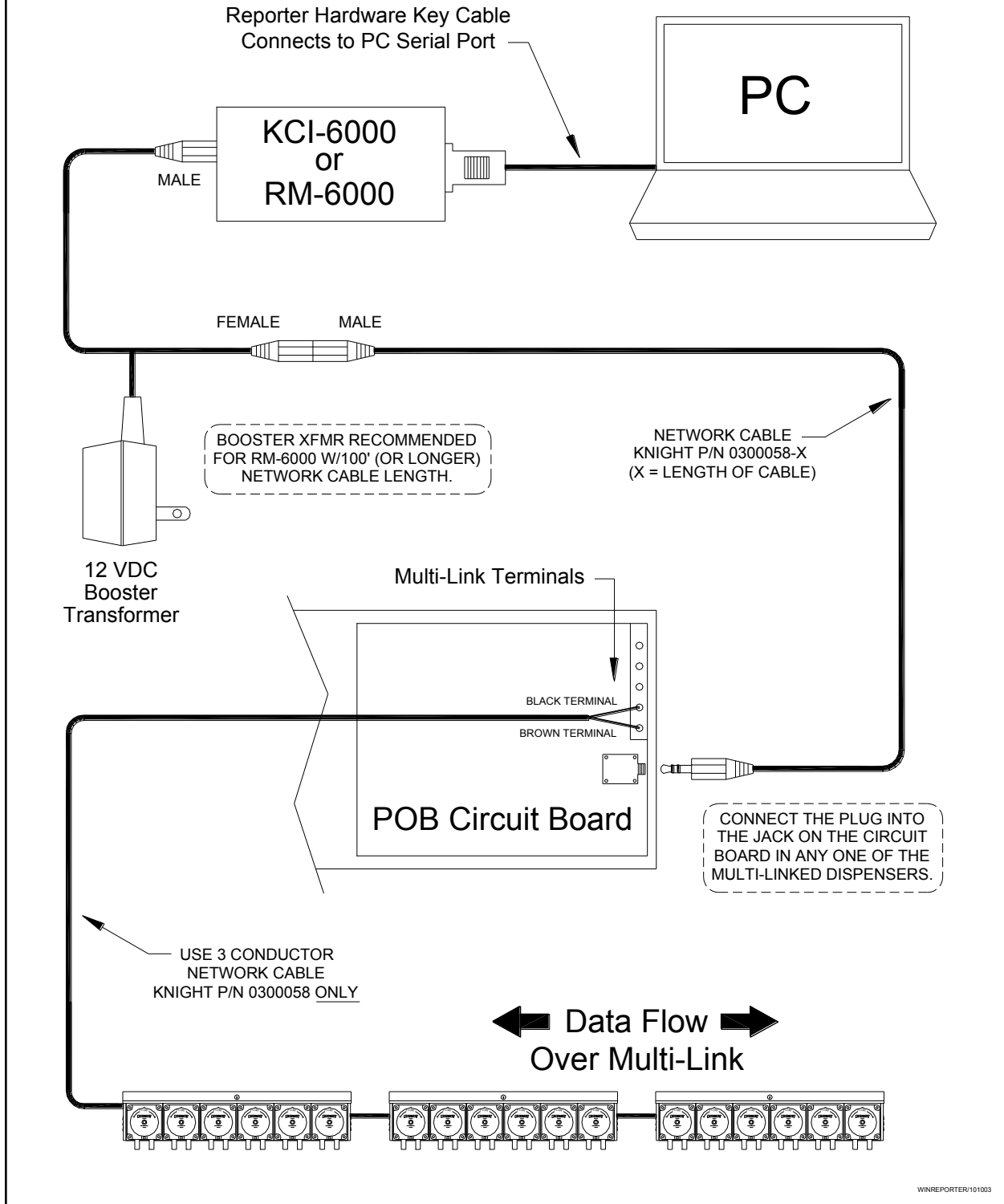
Configuration settings

(1) The setting screen to the right will pop up automatically the first time the program is run. Otherwise, you can click Setup (from the pull-down menus at the top) then Com Port.

(2) <u>If you are using a USB Port:</u> First de-select the Auto Detect Cable checkbox. Then enter the com port number that corresponds to the USB port's assigned number (choosing a baud rate is not necessary).

(3) <u>If you are using an RM-6000:</u> Choose RM-6000 as the Computer Interface device.

(4) When finished setting up the configuration, click the OK button.

NETWORK DIAGRAM
(not to scale)

Reporter Hardware Key Cable
Connects to PC Serial Port

PC

KCI-6000
or
RM-6000

MALE

FEMALE   MALE

BOOSTER XFMR RECOMMENDED
FOR RM-6000 W/100' (OR LONGER)
NETWORK CABLE LENGTH.

NETWORK CABLE
KNIGHT P/N 0300058-X
(X = LENGTH OF CABLE)

12 VDC
Booster
Transformer

Multi-Link Terminals

BLACK TERMINAL
BROWN TERMINAL

POB Circuit Board

CONNECT THE PLUG INTO
THE JACK ON THE CIRCUIT
BOARD IN ANY ONE OF THE
MULTI-LINKED DISPENSERS.

USE 3 CONDUCTOR
NETWORK CABLE
KNIGHT P/N 0300058 ONLY

◀ Data Flow ▶
Over Multi-Link

WINREPORTER/101003

CUSTOM SETUP

The Custom Setup screens allow you to configure your PC to work properly with Reporter software. You can also customize the Reporter Viewer screen to give a proprietary look with custom graphics and text.

(1) Go to the File Commands screen (if switching from Viewer screen — use 0 as the default access code).

(2) From the File Commands screen click Setup, then Custom. The display to right will appear.

(3) You can alternate between the custom setup displays by clicking on the Viewer or Daily Report tabs.

(4) All functions and features are explained below to help you with the setup. When finished setting up the Viewer and Daily Report preferences, click the Save button.
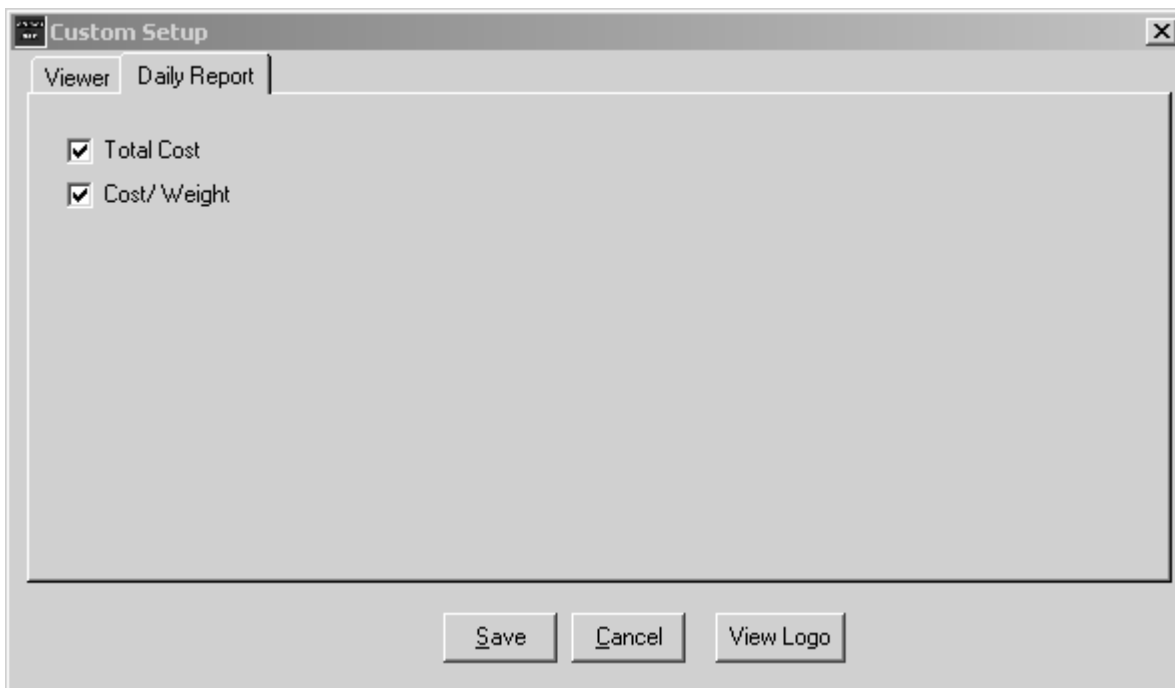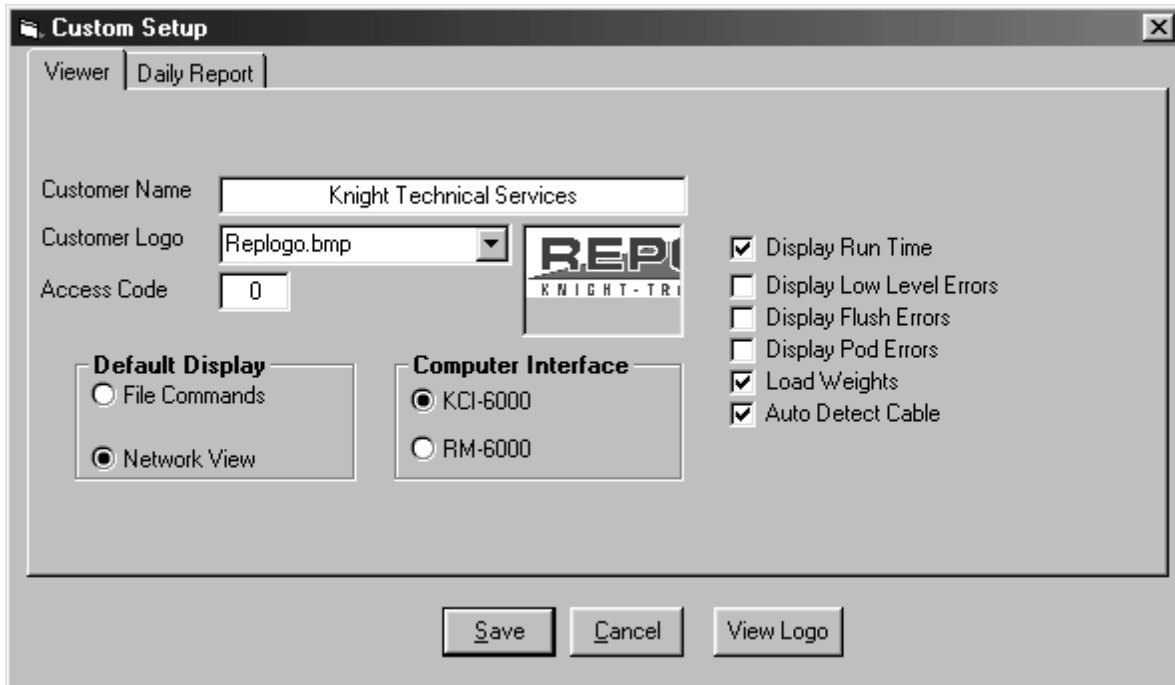
Viewer

❑ Customer Name — Enter the name of the customer or any text you would like to see displayed as the heading on the Daily Washer Summary Report.

❑ Customer Logo — You can replace the standard Reporter graphic image on the Viewer with any Windows bitmap image (.BMP file format). Images must be sized to fit properly. To use a custom bitmap image, first put the file in the Reporter "graphics" directory, then use the down arrow button to select the file in the customer logo box. The View Logo button will allow you to see the full bitmap display.

❑ Access Code — This is the code that allows you access to the File Commands screen (from the Viewer screen).

❑ Default Display — Choose which screen you want to appear when WinReporter is started.

❑ Computer Interface — Choose the interface device that is connecting your PC to the dispenser network.

❑ Display Run Time — This feature displays washer run time on the Viewer screen.

❑ Display Low Level Errors — Check this box if you are interfacing a Knight low level alarm to detect chemical levels. Low level conditions will then be displayed on the Viewer screen.

❑ Display Flush Errors — Check this box if you want flush errors to display on the Viewer screen. Keep in mind, a flush error condition should be corrected promptly to prevent products from plugging the chemical transfer line.

❑ Display POD Errors — This feature is for custom dispensers only.

❑ Load Weights — Check this box if you are using newer LFP (or Chem-Trak) software that permits entering formula load weights. When this box is checked, there will no longer be a pump 10 in pump setup or formula programming, as this is where the LFP stores the load weight information. Chem-Trak will still have 12 pumps available, regardless of this setting.

❑ Auto Cable Detect — This box is checked by default so that WinReporter will automatically look for the hardware key cable that is plugged into a com port on your PC. You will need to de-select this box if using a USB port.

Daily Report

The content of the Daily Washer Summary Report can be customized to the needs and limitations of each customer and the specific laundry machinery. Click on the Daily Report tab and you will see the display to the right.

❑ Total Cost — If you would like your customer to view the total daily cost for each washer, select the total cost box. De-select if this is not needed.

❑ Cost/Weight — Check this box if you would like the daily report to display cost per weight processed. De-select this box if cost per weight information is not desired.

Custom Setup

Viewer | Daily Report

Customer Name   Knight Technical Services
Customer Logo   Replogo.bmp   REP
                                    KNIGHT-TR
Access Code   0

☑ Display Run Time
☐ Display Low Level Errors
☐ Display Flush Errors
☐ Display Pod Errors
☑ Load Weights
☑ Auto Detect Cable

Default Display
○ File Commands
◉ Network View

Computer Interface
◉ KCI-6000
○ RM-6000

Save   Cancel   View Logo

Custom Setup

Viewer | Daily Report

☑ Total Cost
☑ Cost/ Weight

Save   Cancel   View Logo

LOGGING ON

Logging on is typically done "locally" using the on-site PC that is connected to the dispensing system, however you can logon from a remote PC via modem. Logging on is <u>not</u> required when working with files, such as creating a new HEX file, or viewing/printing report files that are saved on your PC. You <u>must</u> logon to do any of the following:

- Creating new reports, whether directly to a printer or choosing the "print to file" option.
- Changing dispensing system settings on-line.
- Uploading or downloading HEX file information.

On-site (locally)

(1)   Click on the Log-On button, then enter the dispenser ID (default is ID number is 01) and access code.

(2)   Click Connect. During the log-on process, the module icon will flash green.

From a remote PC

Before attempting to logon via modem or TCP/IP, make sure that the on-site PC is connected to the ILCS system <u>and</u> properly setup for this type of operation (detailed on pages 32 and 33). Also check that the Modem Interface software is running on the on-site PC and waiting for a call.

(via modem)

(1)   Click on the Log-On button, then enter the dispenser ID and access code.

(2)   Click Modem, then Connect and you will see the screen to the right.

(3)   In the RM-6000 Module Code box, enter the access code that was setup in the modem interface software of the on-site PC.

(4)   Enter the phone number. If you have several locations that you remotely dial into, you can setup the phone numbers using the Account Settings button to the right.

(5)   Click Dial. During the log-on process, the module icon will flash green.

NOTE: If you get a message telling you that the network is busy, another user is currently logged on.

(via TCP/IP)

(1)   Click on the Log-On button, then enter the dispenser ID (default is ID number is 01) and access code.

(2)   Click TCP/IP, then enter a host name (if LAN) or IP address (if connecting over internet).

(3)   Click Connect. During the log-on process, the module icon will flash green.

PROGRAMMING

All dispenser programming, whether on-line or off-line, is done through the File Commands screen. Programming off-line is also known as setting up a HEX file. This feature allows you to create a dispenser setup without even being connected to the dispenser network. For example, if you have a laptop PC, you can program HEX files in your office, then take your PC on-site and upload the dispenser settings as part of your installation.

- You must be at the File Commands screen to do any programming.

- For metric file downloads, all formula volume settings must be programmed in milliliters. Reporter will not convert liters to milliliters.

- For programming a Chem-Trak host, see page 20.

Programming a dispenser on-line

(1) Logon to the dispenser.

(2) If the dispenser is already programmed and you are only making changes, you can skip this step.

    If this is a new installation, or you want to completely re-program an existing dispenser, click Setup then Clear Settings and choose all available boxes to clear the dispenser memory. Also click Setup then Set Clock, and make any time or date adjustments as needed. Note: Be sure to clear the extended memory module (located in the host) for Chem-Trak systems.

(3) Click on Receive Dispenser File to "download" the setup information onto your PC. The module icon will flash and the progress of the download will be displayed by a colored bar.

(4) When the download is complete, you can proceed with the programming menus that are detailed on the following pages.

(5) When finished programming you will be prompted if you wish to save the information as a file when you logoff. If you want to save the information as a HEX file, type in a file name and click Yes. This is an optional step as all changes are updated on the dispenser in real time during programming.

Programming a dispenser off-line

(1) Click the New Setup button.

(2) When prompted, choose the type of dispenser file to create (Knight-Trak, Chem-Trak Slave, Chem-Trak Jr and OP Global). See page 20 for programming Chem-Trak host).

(3) Proceed with the programming menus that are detailed on the following pages.

(4) When finished programming, click the Save Setup button and you can enter the name of the HEX file you wish to create. You can also click Save Setup if you are working with an existing dispenser file.

Uploading a HEX file

(1) Logon to the dispenser.

(2) If the dispenser has already been in use, you can skip this step.

    If this is a new installation, or you want to completely re-program an existing dispenser, click Setup then Clear Settings and choose all available boxes to clear the dispenser memory. Also click Setup then Set Clock, and make any time or date adjustments as needed. Note: Be sure to clear the extended memory module (located in the host) for Chem-Trak systems.

(3) From the displayed list of HEX files, click the one you wish to upload, then click Send Dispenser File. You can also "drag-n-drop" the HEX file onto the pump icon. Be sure the HEX file you choose is the correct type for the dispenser you are sending it to.

(4) The module icon will flash and the progress of the upload will be displayed by a colored bar.

VIEWER SCREEN

This PC/Washer/Dispenser interface is designed to provide the end user and the chemical service distributor up-to-the-minute production status information. This unique graphical interface can become an important tool for any end user concerned about the cost of labor, chemicals and utilities in the laundry. The end-user will use the Viewer for all reporting and washer status inquiries.

The Viewer screen is the default display that appears when the program is started. However, if desired, the File Commands screen can be selected as the default display and is explained in the Custom Setup section. To "jump" from the Viewer screen to the File Commands screen, click the File Commands button in the upper left corner. When prompted, enter the access code (by default is 0) and press ENTER.

By clicking on any one of the washers, you will see the Washer Functions display. The following buttons allow you to choose which function to perform.

❑ Logon – Takes you to the logon screen (detailed on page 12).

❑ Disconnect – Used for disconnecting from a dispenser network. Also known as logging off.

❑ Reports – Takes you to the report screen (detailed on page 28).

❑ Demo – Runs a demo of the washer animation that is normally seen when logged on to a dispenser network where washer activity is occurring.

FILE COMMANDS SCREEN

The File Commands screen is where all of the programming is done. Use of this screen is intended for the laundry (or chemical) specialist, and is access code protected. End-users will typically not need to use this screen. If desired, this screen can be chosen as the default display in the Custom Setup screen.

❑ Location Settings – Takes you to the Customer Locations screen (detailed on page 10).

❑ Logon – Takes you to the logon screen (detailed on page 12).

❑ Receive Dispenser File – Downloads information from the dispenser you're logged onto (detailed on page 13).

❑ Send Dispenser File – Uploads the selected HEX file to the dispenser you're logged onto (detailed on page 13).

❑ Logoff / Reset – Disconnects you from the dispenser network. Also makes the RM File Directory button available if not connected to a dispenser network.

❑ Reports – Takes you to the report screen (detailed on page 28).

❑ New Setup – Used for starting a new HEX file (detailed on page 13).

❑ Save Setup – Used as a "quick save" feature when working with HEX files (detailed on page 13).

❑ Print Icon — Allows you to quickly print HEX files. Click on the HEX file, then click this button.

❑ RM File Directory – Takes you to the file directory screen for the RM-6000 module (detailed on page 27).

❑ Viewer – Takes you to back to the Viewer Screen. Also known as a "jump" button.
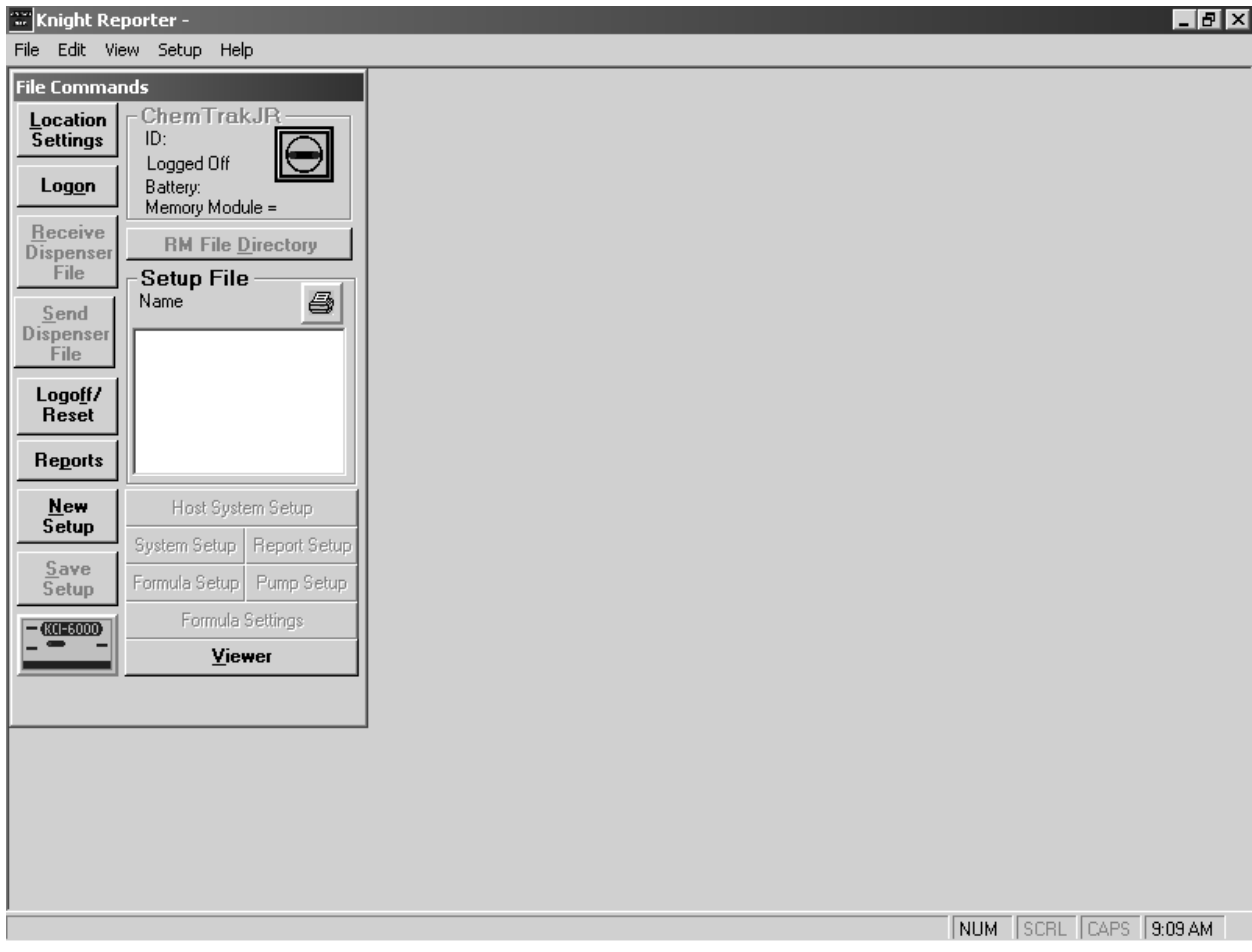
LOCATION SETTINGS

Each installation must be setup with specific customer location settings in order for the dispenser network to communicate correctly. The location settings contain specific information about each dispenser in the network, as well as allowing you to enter descriptive names. The software allows a maximum of 15 dispensers on the network. For accounts with more than 15 dispensers, a second network should be setup.

Multiple dispenser network locations can be setup and saved. For laptop users that will run Reporter Software at various locations, saved settings can be selected from the Location Settings box when going from one account to another. Changing locations will change the number and type of dispensers listed in the Report Parameters (print functions) and the total number of washers shown on the Viewer screen.

When setting up a location, it is important to select the appropriate software type for each dispenser in the network in order for Reporter to communicate properly. To find the version number for Knight Trak II, press the ENTER key then the NO key of the LFP-6000 Laundry Formula Programmer. The version number will be displayed in the lower right corner of the display. For Knight Trak I, the version identifier label is located on the Knight Output Board (KOB) main chip located to the left of the reset button.

Creating a new location

(1) From the File Commands screen, click on Location Settings and you will see the screen to the upper right.

(2) Click New, then type the name you wish to give the account and click OK. You will then see the screen to the lower right.

(3) Type in the dispenser ID# in the first column, then choose the dispenser software and dispenser type. You can also enter a phone number for the location if the dispensers will be accessed through a modem connection.

(4) When finished entering data for all dispensers, click Save to store the information.

Changing locations

(1) From the File Commands screen, click on Location Settings and you will see the screen to the upper right.

(2) Click on the desired choice from the Available Customer Locations, then click OK. You will then see the screen to the lower right.

(3) Click on Close if all dispenser information is correct . If you wish to modify the location setup, make any necessary changes, then click Save to store the information.

Deleting a location

(1) From the File Commands screen, click on Location Settings and you will see the screen to the upper right.

(2) Click on the desired choice from the Available Customer Locations, then click delete.

(3) The dispenser profile will be deleted.

Copying and deleting files

You can copy setup (HEX) files from one location to another using the Customer Locations display. This is a helpful feature when you have accounts with similar washer machinery, and wish to use a particular file from one account to quickly setup a HEX file for another. If copying HEX files, be sure that you know what type of dispenser the file is used for to avoid a mix up. You can also delete files that are not needed to free up space on your PC.

(1) From the File Commands screen, click on Location Settings and you will see the screen to the upper right.

(2) Click on the desired choice from the Available Customer Locations and the HEX files for that account will appear in the small window on the lower left of the display.

(3) Click another choice from the Available Customer Locations and the HEX files for that account will appear in the small window on the lower right of the display.

(4) Click on the desired file, then click either Copy or Delete. If you are copying a file, notice that arrows on the copy buttons show which "direction" the file will be copied. If you wish to start over, click the Clear List button.

Customer Locations

New   Delete   Selected Customer Location [default]   [OK]

Available Customer Locations

| default | KT2 | Metric | |

setup file   setup file

[   ]   Copy =>   [   ]
[   ]   Copy <=   [   ]
[   ]   Delete File [   ]
[   ]   Clear List [   ]

Customer Location: New   [Save] [Close]

Phone: [800-854-3764]   Dispenser Network Profile

	ID	Description	Dispenser Software	Dispenser Type
1	10	Host	Chem-Trak Host ▼	Chem-Trak Host ▼
2	11	First Slave	Chem-Trak Slave ▼	Washer Extractor ▼
3	12	Second Slave	Chem-Trak Slave ▼	Washer Extractor ▼
4	13	Third Slave	Chem-Trak Slave ▼	Washer Extractor ▼
5	14	Fourth Slave	Chem-Trak Slave ▼	Washer Extractor ▼
6			▼	▼

System Setup

There are only a few minor differences between programming a dispenser on-line and programming a dispenser off-line (working with a HEX file). For example, the Main Access Code, User Access Code and I.D. can not be saved in a HEX file. These settings can only be changed when on-line with a dispenser or at the dispenser keypad. Date/time information is kept in the dispenser memory, and is not stored in a HEX file.

When programming system setup parameters, not all of the features will pertain to a specific dispenser series or type. These selections will be "grayed out" and will not be selectable, or may not be shown. Also be aware that numeric settings will not accept a non-number value.

NOTE: The information in this section is for Knight-Trak, Chem-Trak Slaves, Chem-Trak Jr and OP Global systems. See Chem-Trak Host section (page 20) for programming additional system setup parameters for Chem-Trak Jr. Refer to system manual for more detailed information on any of the settings.

❑ System Type — If using Knight Trak select system type (Knight Trak I or Knight Trak II). Then select system operating software (Knight Trak I - choose Washer Extractor, Washer Extractor Relay, Tunnel or Tunnel Relay; for Knight Trak II - only Washer Extractor is available). If creating a new file, the selection will already be shown based on what type of file you chose to create.

❑ Bleach Pump — This selection shows which pump will be defeated if BLEACH DEFEAT is pressed. Select the bleach pump by clicking on pump button, then click the desired pump number. Not available for Chem-Trak.

❑ Load Count — Select Load Count pump by clicking on Load Count Pump button. Always select the pump that will be signaled last in all wash formulas. When a cycle is run, the last pump "stamps" the timing data into memory.

❑ Auto Formula Reset — This feature resets the formula number to 00 after the load count pump activates. In cases where automatic formula select is OFF (formulas selected manually), this feature ensures that an operator cannot wash a load with the wrong formula. When a washcycle is finished, the next formula must be manually chosen.

❑ Door Signal — Select the SIB-5000 signal spare input that will be signaled by washer at the beginning of each load. This will provide a start time on your cycle report for each load. Not available for Chem-Trak.

❑ Access Codes — Click and enter Main Access Code (up to 3 digits). The Main Access Code enables all functions of Reporter. Click and Enter User Access Code. User Access Code allows your customer to print reports, view reports, and view run time displays only. The access codes will only appear when logged onto a dispenser and are not saved in a HEX file.

❑ I.D. Number — Select appropriate I.D. number for dispenser. All dispensers on the Reporter network must have a unique I.D. to communicate with the program. The I.D number will only appear when logged onto a dispenser and is not saved in a HEX file. If setting up a Chem-Trak slave, be sure that the first digit of the I.D. number matches the first digit of the host I.D. number (example: if host is 10, then slaves should be in the range of 11 - 16).

❑ Operating Zone — Allows you to establish "on" and "off" times of operation for the dispenser. The default start and end times allow the system to dispense chemical at any time, day or night. Any trigger signals that are received outside of the operating zone will be ignored, and chemicals will not be dispensed.

❑ Unit of Measure — Select U.S., Metric or Imperial. For programming formula volume settings, GALLONS or LITERS are not selectable. The default units are ounces (US and Imperial) or milliliters (Metric) only.

❑ Delay Units — Select seconds (255 max) or minutes (255 max) for pump run delay.

❑ SIB Formula Select — This feature allows you to select formula 1 or 2 (only) using a toggle switch. The switch controls the formula select function, not the LFP. Not available for Chem-Trak.

❑ Auto Formula Select — Click in check box to select formulas automatically by washer signals. An SIB input must be selected and washer control type (micro or chart). Auto Formula Select also generates a "start" time (which appears on cycle tracking reports) if a door signal is not used. Chem-Trak Jr does not have a pump select for AFS. Only inputs 11, 12, or 13 can be used for AFS on a Chem-Trak Jr.

❑ AFS Time — This setting is used in conjunction with microprocessor mode to choose a time interval (in seconds) that the signal will be read. For a 1 second qualifying time, a 1 second signal equals formula 1, 2 seconds equals formula 2, 3 seconds equals formula 3, etc. For a 2 second qualifying time, a 2 second signal equals formula 1, 4 seconds equals formula 2, 6 seconds equals formula 3, etc. For a 5 second qualifying time, a 5 second signal equals formula 1, 10 seconds equals formula 2, 15 seconds equals formula 3, etc.

❑ Flush Pump — If using a flush manifold, click enabled check box. Select flush "with" or "after" chemical injection and which pump output is wired to flush manifold solenoid. Not available for Chem-Trak.

❑ Error Sampling Delay — Used for flush applications that have a flow switch to verify actual water flow. This setting tells the system at what point during the flush cycle to check the flow switch state (open or closed). If set to 00, this feature is turned "off", and the flow switch input will not be checked (no FLUSH ERROR warnings will be produced). If using a flow switch, this setting be no less than 03 seconds. Not available for Chem-Trak slave, however this setting is used with Chem-Trak Jr.

❑ Flush Time — This sets the time the flush solenoid will operate after the pumps have finished. Not available for Chem-Trak slave. Chem-Trak Jr. has this setting in the host programming section.

❑ 5 Minute Signal Lockout — This feature helps prevent unwanted injections that are caused by "erroneous" signals from the washer (example: when the water level goes low and a fill valve activates).

❑ Qualifying Time — This selection allows you to determine the appropriate length of a valid supply signal from the washer. Enter a time in seconds (1 - 120 for typical systems, 1 - 10 for OP Global). The supply signal duration must meet or exceed this setting to activate any pump in the system, or start a pump delay.

❑ IO Board Type — Choose OPO if using a Knight-Trak II LFP with an On-Premise pump board (optional). Otherwise, choose POB for all other applications. Not available for Chem-Trak.

❑ Halt with Injection — This setting is for Chem-Trak systems only. Allows the Chem-Trak system to pause the washer's operation (halt) while its own chemical injection is taking place. This can be helpful if dealing with excessive pump run time (due to product viscosity, pump size), far distance to the washer (longer flush and transfer times) or low water pressure. Even if this feature is turned off, the Chem-Trak SIB will still halt the washer (if wired as such) if chemical is requested while the system is busy feeding other washers.

❑ Display Load Weight — If set to enabled, the load weight display will replace the time and date on the LFP main display screen (during normal operation). Choosing this option will allow operators to manually input the actual load weight on the LFP keypad to over-ride the programmed load weight for the formula that is selected. Not available for Chem-Trak Jr.

❑ Operating Mode — This setting is for OP Global systems only. This selection allows you to choose between the following modes of operation: Normal, Drain, Relay, or Soil.

❑ Signal Mode— This setting is for OP Global systems only. This selection allows you to choose which pump signal mode you wish to use. **ONE-TO-ONE:** Each pump has its own independent signal. **ASSIGNED STEP:** Each signal input on the SIB becomes a signal number (for programming) and can be assigned to multiple pumps in each formula. Signal inputs 2 and 5 (main wash signals) become level 3 for any pumps that are assigned to it. **ASSIGNED SIG:** Each signal input on the SIB becomes a signal number (for programming) and can be assigned to multiple pumps in each formula. Each time an assigned signal is received, the pump will sequence through normal volume levels.

❑ Pump Levels— OP Global only. This selection allows you to choose if you wish to use multiple pump level programming. Pump levels allow pumps to dispense up to 3 individual dosage amounts within the same formula.

❑ Pumps 7 & 8 — This setting is for OP Global systems only. Check the dispenser circuit board to determine if there are output connections for pumps 7 and 8. If there is, choose ENABLE.

TYPICAL SYSTEM

OP GLOBAL

Report Setup

❑ Shift Start Times — Double click and enter laundry shift times in military time (24-hour clock).

❑ Wash Wheel — Double click and enter wash wheel load capacity. Chem-Trak Jr. has setting for each washer.

❑ Installation — Double click and enter dispenser installation dates using same date format; __/__/__. If using Knight Trak I, you may wish to also enter the date the batteries were last changed (not applicable to Chem-Trak).

❑ Maximum Cycle Time — This selection allows you to program the maximum allowable cycle time for ANY programmed formula. When figuring maximum cycle time, you MUST allow for estimated cycle time and cycle time tolerance (maximum programmable cycle time is 255 minutes). Not available for Chem-Trak.

❑ Cycle Time Tolerance — This selection allows you to set error tolerance between the estimated cycle time and actual cycle time. Enter a time error tolerance between 0 and 99. Not available for Chem-Trak.

❑ Report Name — This is the name that appears as the heading on printed reports.

TYPICAL KNIGHT-TRAK

CHEM-TRAK SLAVE

CHEM-TRAK JR

Formula Setup

❑ Formula Name — Allows you to set individual formula name descriptions. Use tab key to move from cell to cell. Enter maximum of 19 characters to name a formula. Giving each formula a descriptive name makes the system more user-friendly.

System type	Max # of formulas
Knight Trak I / II	20
Chem-Trak Jr.	90
Chem-Trak Slave	99

❑ Cycle Time — Allows you to set cycle times for each formula. This information is used in conjunction with max cycle time and cycle time tolerance (detailed on page 16) for reporting purposes. The cycle time column will not appear for Knight-Trak I, or Chem-Trak systems.

❑ Load Weight — This information is used for data-tracking purposes to generate reports. Individual formula load weights are used for Chem-Trak systems and newer versions of Knight-Trak II only. This column will not appear if the Load Weight selection is turned off in the Custom Setup section (detailed on page 6).

❑ Formula Enable– Allows you to enable or disable each formula. Disabled formulas will be skipped when manually changing formulas. OP Global only.

TYPICAL KNIGHT-TRAK AND CHEM-TRAK	OP GLOBAL

Formula Names

#	Name	Cycle Time	Load Weight
1	FORMULA 01	0	0
2	FORMULA 02	0	0
3	FORMULA 03	0	0
4	FORMULA 04	0	0
5	FORMULA 05	0	0
6	FORMULA 06	0	0
7	FORMULA 07	0	0
8	FORMULA 08	0	0
9	FORMULA 09	0	0
10	FORMULA 10	0	0
11	FORMULA 11	0	0
12	FORMULA 12	0	0
13	FORMULA 13	0	0
14	FORMULA 14	0	0
15	FORMULA 15	0	0
16	FORMULA 16	0	0
17	FORMULA 17	0	0
18	FORMULA 18	0	0
19	FORMULA 19	0	0
20	FORMULA 20	0	0

Close

Formula Names

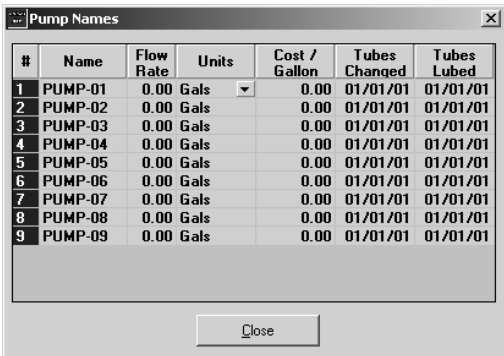| #	Name	Enable
1	FORMULA 01	■ Enabled
2	FORMULA 02	■ Enabled
3	FORMULA 03	■ Enabled
4	FORMULA 04	■ Enabled
5	FORMULA 05	■ Enabled
6	FORMULA 06	■ Enabled
7	FORMULA 07	■ Enabled
8	FORMULA 08	■ Enabled
9	FORMULA 09	■ Enabled
10	FORMULA 10	■ Enabled
11	FORMULA 11	■ Enabled
12	FORMULA 12	■ Enabled
13	FORMULA 13	■ Enabled
14	FORMULA 14	■ Enabled
15	FORMULA 15	■ Enabled
16	FORMULA 16	■ Enabled
17	FORMULA 17	■ Enabled
18	FORMULA 18	■ Enabled
19	FORMULA 19	■ Enabled
20	FORMULA 20	■ Enabled

Close

Pump Setup

Set individual Pump Names by pressing tab or enter keys to move from cell to cell. Enter new descriptions. Product Names limited to 7 characters (including spaces). Press tab or enter (cursor moves right one cell) to set pump flow rates. Actual flow rates can be set using Pump Programming Menu of the dispenser or, from this view. You can also determine flow rates manually and program the values for each pump in the correct cell.

Tab over to set Product Costs per unit. Range is _ _ _ . _ _ only. Do not enter currency symbol. Tab over to Tubes Changed and Tubes Lubed Date. Double click on cell and set dates using calendar or type in manually. Copy and paste functions can be used to save time.
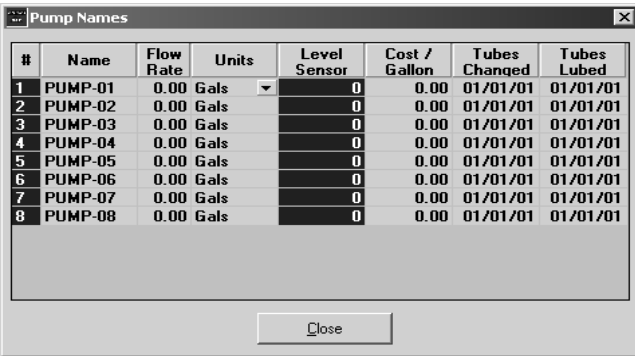
Notes:

- Minimum programmable flow rates: Metric = 60 ml/min, US = 3 oz./min, Imp = 2.2 oz./min

- Pump 10 will not be available for Knight Trak I or Knight Trak II if the Load Weight selection is turned on (default) in the Custom Setup menu.

- Pump setup information for Chem-Trak slaves is established at the host. You must then choose for the host to update the slaves with pump information that will be used for summary reports. You cannot change any of the pump setup parameters at the slave unit, as this will differ from the host (and other slave LFPs). The pump setup information that appears for the slave is for reference purposes only. The display will look similar to the image shown below, but will have 12 pumps total.

- For Chem-Trak Jr. systems, disregard the "Level Sensor" column (not used at this time).
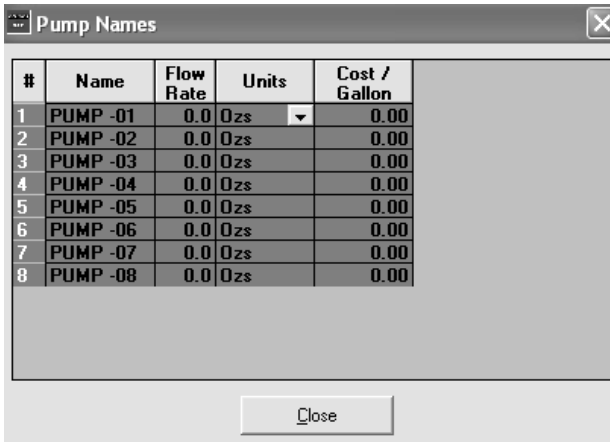
TYPICAL KNIGHT-TRAK	CHEM-TRAK JR

Pump Names

#	Name	Flow Rate	Units	Cost / Gallon	Tubes Changed	Tubes Lubed
1	PUMP-01	0.00	Gals ▼	0.00	01/01/01	01/01/01
2	PUMP-02	0.00	Gals	0.00	01/01/01	01/01/01
3	PUMP-03	0.00	Gals	0.00	01/01/01	01/01/01
4	PUMP-04	0.00	Gals	0.00	01/01/01	01/01/01
5	PUMP-05	0.00	Gals	0.00	01/01/01	01/01/01
6	PUMP-06	0.00	Gals	0.00	01/01/01	01/01/01
7	PUMP-07	0.00	Gals	0.00	01/01/01	01/01/01
8	PUMP-08	0.00	Gals	0.00	01/01/01	01/01/01
9	PUMP-09	0.00	Gals	0.00	01/01/01	01/01/01

Close

Pump Names

#	Name	Flow Rate	Units	Level Sensor	Cost / Gallon	Tubes Changed	Tubes Lubed
1	PUMP-01	0.00	Gals ▼	0	0.00	01/01/01	01/01/01
2	PUMP-02	0.00	Gals	0	0.00	01/01/01	01/01/01
3	PUMP-03	0.00	Gals	0	0.00	01/01/01	01/01/01
4	PUMP-04	0.00	Gals	0	0.00	01/01/01	01/01/01
5	PUMP-05	0.00	Gals	0	0.00	01/01/01	01/01/01
6	PUMP-06	0.00	Gals	0	0.00	01/01/01	01/01/01
7	PUMP-07	0.00	Gals	0	0.00	01/01/01	01/01/01
8	PUMP-08	0.00	Gals	0	0.00	01/01/01	01/01/01

Close

OP GLOBAL

Pump Names

#	Name	Flow Rate	Units	Cost / Gallon
1	PUMP -01	0.0	Ozs ▼	0.00
2	PUMP -02	0.0	Ozs	0.00
3	PUMP -03	0.0	Ozs	0.00
4	PUMP -04	0.0	Ozs	0.00
5	PUMP -05	0.0	Ozs	0.00
6	PUMP -06	0.0	Ozs	0.00
7	PUMP -07	0.0	Ozs	0.00
8	PUMP -08	0.0	Ozs	0.00

Close

Formula Settings

This programming grid is provided for setting the chemical volumes for each pump in each formula. To move through the Formula Volume Settings grid, simply use the arrow, tab or enter keys. For U.S. and Imperial units of measure, the maximum programmable pump volume is 999.9 ozs. For Metric units, the maximum programmable volume is 9,999 milliliters. The maximum programmable delay time is 255 seconds or minutes.

- Metric pump volumes must be programmed in milliliters.

- Maximum pump run times is 255 seconds (as determined by flow rate).

The light blue and white portions of the grid indicates the cells that can be programmed. The dark blue area can not be changed from this grid. Simply enter the pump volumes required for each formula, each pump and advance to the next cell by pressing arrow, enter or tab keys. If you are programming the dispenser on-line, new settings are uploaded to the dispenser as soon as grid is closed.

To remove Levels and/or Delay Times from the display for easier viewing, simply deselect the corresponding check boxes. To put them back in, select the check boxes again.

For Tunnel Washer programming, the "Delay" cell is replaced by "Module". For systems with "Tunnel-Trak" software, the dispenser file must include the Module number for each pump. This is the only way the dispenser knows when to inject a given product for given formula into the tunnel. Program the Module for each pump only in formula number 1. For systems with "Tunnel Relay" software programming, the module number for each pump is for reference only.

Drain Count Settings (OP Global and Drain Mode Only)

This Allows you to enter the drain assignment for each pump and formula.

Note: Be sure to assign the load count pump to the final drain count to properly end the washcycle.

Sample Host Report

On the following page is an example of a host setup report (upper image) showing the pump flow rates, product costs, and various system settings.

Also shown is an example of a host cycle report (lower image) that displays various operating errors of the system. The definitions of these errors are listed below. Most of the errors are shown on the display of the host when they occur and trigger the systems alarm to alert operators.

Messages / Error Definitions

❑ Vessel Overflow — This error is caused by chemical reaching the top sensor during an injection. Typical cause would be that the lower sensors in the vessel did not properly detect the rising water level.

❑ Vessel Sensor Error — This error will occur if the vessel does not completely empty out within a one minute period. Typical causes would be an obstruction in the outgoing line from the vessel that prevent water from emptying, or a bad sensor that is stuck on.

❑ Low Air Pressure — This error happens when the air pressure switch breaks contact. Typically caused by low air pressure, however, may be a loose wire or misadjustment of the switch.

❑ Pump XX Proof of Delivery Error — POD sensor not recognizing presence of chemical.

❑ Pump XX Recalibrated — Shows the last time the (named) pump was calibrated.

❑ Power Line Reset Detected — This message is logged on the report to indicate when power was turned on, or if there was a brief loss of power.

❑ POB Comm Error — This error will occur if there is a loss of communication between the host and the POB(s) for 30 seconds or longer. Typical causes are loose cable connections, or damage to the POB.

❑ CIO Com Error — This error will occur if there is a loss of communication between the host and the CIO for 30 seconds or longer. Typical causes are loose cable connections, or damage to the CIO.

❑ Request Aborted — This message is logged on the report if a chemical request is aborted by the RESET button being pressed either at the host or slave.

❑ Pump XX Zero Flow Rate Programmed — Indicates a chemical request for a pump that is not calibrated.

❑ Long wait times are typically caused by other washers requesting chemical. However, the wait times can be further lengthened if using too small of a pump for required dosages, distance to the machine, and low water pressure for flush.

```
HOST # 10

PROGRAM SETTINGS
----------------


PUMP / PRODUCT INFORMATION
--------------------------
PUMP # PRODUCT        FLOW RATES                           PRODUCT COST ($)
------ -------        ---------------------------------    ----------------

   1   JOLT           143.40 OUNCES / MIN      720 MLU       3.50 / GALLON
   2   ADVANCE         42.30 OUNCES / MIN      214 MLU       7.70 / GALLON
   3   BLEACH         182.20 OUNCES / MIN      876 MLU       1.13 / GALLON
   4   CONDIT          15.00 OUNCES / MIN       75 MLU       8.00 / GALLON
   5   ENZYME          42.20 OUNCES / MIN      196 MLU      10.05 / GALLON
   6   PEROXID         39.40 OUNCES / MIN      191 MLU       2.40 / GALLON
   7   SOUR            25.30 OUNCES / MIN      124 MLU       5.20 / GALLON
   8   SOFT            16.60 OUNCES / MIN       80 MLU       6.75 / GALLON
   9   FORM ID          0.00 GALLONS / MIN       0 MLU       0.00 / GALLON
  10   PUMP-10          0.00 GALLONS / MIN       0 MLU       0.00 / GALLON
  11   PUMP-11          0.00 GALLONS / MIN       0 MLU       0.00 / GALLON
  12   PUMP-12          0.00 GALLONS / MIN       0 MLU       0.00 / GALLON

POD SHUTDOWN          POD ERROR DELAY        LOW AIR SHUTDOWN
------------          ---------------        ----------------
  ENABLED               15 SEC                  ON

WATER FLUSH TIME      RECALIBRATE EVERY      UNIT OF MEASURE
----------------      -----------------      ---------------
  45 SEC                10 TIMES                US

TRANSFER TIME        AIR PUSH TIME
-------------        -------------
   1    40 SEC        1    0 SEC
   2    40 SEC        2    0 SEC
   3    40 SEC        3    0 SEC
   4    40 SEC        4    0 SEC
   5     0 SEC        5    0 SEC
   6     0 SEC        6    0 SEC
```

```
HOST CYCLE TRACKING
-------------------


DATE   WASHER  REQUEST STARTED  WAIT TIME (SECONDS)
----   ------  ---------------  -------------------
02/05    4      13:20                  0
02/05    4      13:30                  0
02/05    4      13:31                 94
02/05    3      13:43                  0
02/05    4      13:47                  0
02/05    3      13:53                  0
02/05           13:53                       * REQUEST ABORTED
02/05           13:53                       * ENZYME   RECALIBRATED
02/05    4      14:04                  0
02/05    3      14:10                  0
02/05           14:12                       * VESSEL SENSOR ERROR
02/05    4      14:12                 37
02/05           14:13                       * CIO COMM ERROR
02/05    1      14:25                  0
02/05           14:25                       * LOW AIR PRESSURE
02/05    1      14:29                228
02/05           14:29                       * POWER LINE RESET DETECTED
02/05    3      14:42                  0
02/05    3      14:51                  0
02/05           15:01                       * PUMP-01 ZERO FLOW RATE PROGRAMMED
02/05    1      15:20                  0
02/05    3      15:24                  0
02/05    1      15:28                  0
02/05           15:28                       * SOUR    PROOF OF DELIVERY ERROR
02/05    3      15:42                  0
02/05    1      16:40                  0
02/05    1      16:58                  0
02/05    4      17:24                  0
02/05    3      17:28                  0
02/05           17:29                       * POB COMM ERROR
02/05    4      17:34                  0
02/05    1      17:36                 71
02/05    4      17:51                  0
02/05    3      17:56                  0
02/05           17:56                       * CONDIT   RECALIBRATED
02/05           17:57                       * VESSEL OVERFLOW
```

CHEM-TRAK HOST

Programming a Chem-Trak host can be done on-line or off-line from the File Commands screen, however, setting ID's and access codes can only be performed while logged on. One important system component in the host is the External Memory Module. This module is plugged into the host control board and stores cycle tracking information for the entire system, however it can only be setup through the host programming menus.

NOTE: The setup information that is relevant to Chem-Trak Jr can be found in the "Host System Setup" (on page 22). The other information in this section is geared primarily for standard Chem-Trak hosts.

Programming a host on-line

(1) Logon to the host. When the logon is successful, you will first see a display that shows squeeze tube status.

(2) If the host is already programmed and you are only making changes, you can skip this step.

If this is a new installation, or you want to completely re-program an existing host, click Setup then Clear Settings and choose all available boxes to clear the system memory (including the external memory module). Also click Setup then Set Clock, and make any time or date adjustments as needed.

(3) Click on Receive Dispenser File to "download" the setup information onto your PC. The module icon will flash and the progress of the download will be displayed by a colored bar.

(4) When the download is complete, you can proceed with the programming menus on the following pages.

(5) When finished programming you will be prompted if you wish to save the information as a file when you logoff. If you want to save the information as a HEX file, type in a file name and click Yes. This is an optional step as all changes are updated on the host in real time during programming.

Programming a host off-line

(1) Click the New Setup button.

(2) When prompted, choose Chem-Trak Host as the type of dispenser file to create.

(3) Proceed with the programming menus following on the following pages.

(4) When finished programming, click the Save Setup button and you can enter the name of the HEX file you wish to create. You can also click Save Setup if you are working with an existing host file.

Uploading a HEX file

(1) Logon to the host.

(2) If the host has already been in use, you can skip this step.

If this is a new installation, or you want to completely re-program an existing host, click Setup then Clear Settings and choose all available boxes to clear the host memory (including the external memory module). Also click Setup then Set Clock, and make any time or date adjustments as needed.

(3) From the displayed list of HEX files, click the one you wish to upload (be sure it's a host file) then click Send Dispenser File. You can also "drag-n-drop" the HEX file onto the pump icon.

(4) The module icon will flash and the progress of the upload will be displayed by a colored bar.

Host Report Setup

❑ Installation — Click and enter the host installation date using the format MM/DD/YY.

❑ Report Name — This is the name that appears as a heading on printed host reports.

Host Pump Setup

❑ Pump Names — Set individual chemical names by pressing tab or enter keys to move from cell to cell. Enter new descriptions (limited to 7 characters, including spaces).

❑ Flow Rate — Pump flow rates can be manually entered for pumps that have a level sensor setting of 0. You can also choose between GAL and OZ (or L and ML for metric mode). The level sensor setting is determined by the host itself. For example, if creating a new HEX file, all sensor settings will be 0, however if you are programming the host on-line, the sensor settings will reflect the choices made when the pumps were calibrated at the host.

❑ Product Costs (per unit) — Range is _ _ _ . _ _ only. Do not enter currency symbol.

❑ Tubes Changed — Double click on a cell and set the date using the pop up calendar or type in manually. Copy and paste functions can be used to save time.

❑ Tubes Lubed — Double click on a cell and set the date using the pop up calendar or type in manually. Copy and paste functions can be used to save time.

❑ Pump Type — Choose peristaltic or other based on each pump in the system. This setting allows the system to bypass the automatic recalibration routine for non-peristaltic pumps.

❑ POD Error (Sec) — This feature allows the system to have individual proof of delivery error time settings for each pump. Set the POD error time carefully based on product viscosity and minimum dosage time.

❑ Update Chemtrak LFPs — This selection is only available if programming the host on-line. Choose this option anytime you make changes to the pump setup information. This will ensure that the slave LFPs have the most current pump data for calculating accurate summary reports.
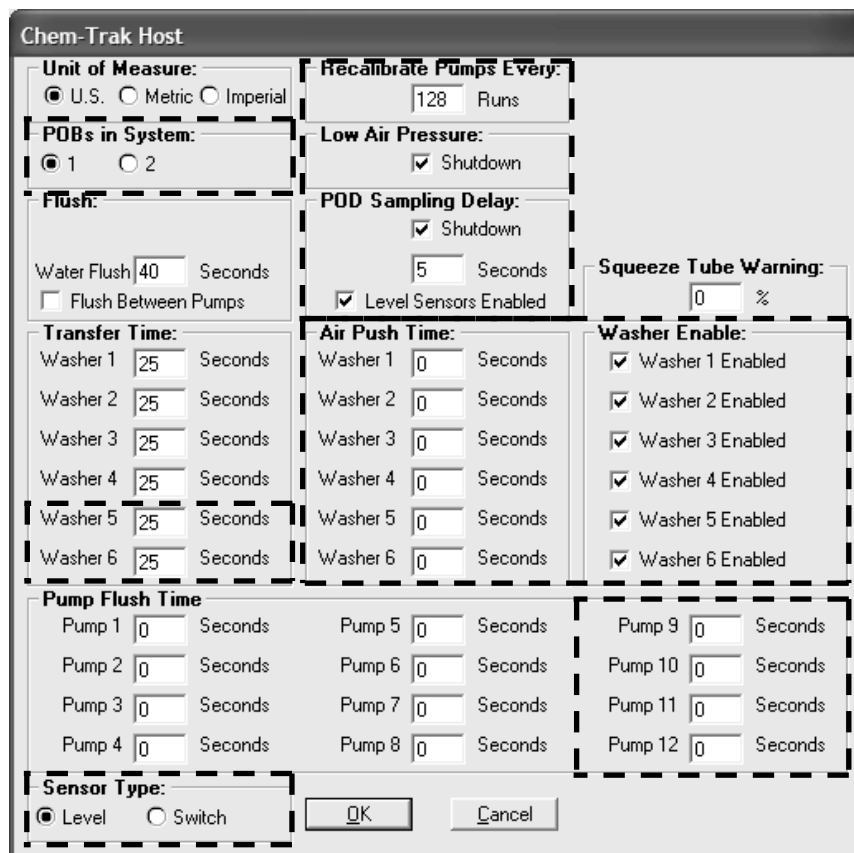
Host System Setup

There are a few differences between programming (Chem-Trak host or Chem-Trak Jr) on-line or off-line (working with a HEX file). The Access Codes, ID number, and date/time are not saved in a HEX file. These settings can only be changed when on-line with the host or at the host keypad.

❑ Access Codes — Click and enter Main Access Code (up to 3 digits). The Main Access Code enables all functions of Reporter. Click and Enter User Access Code. User Access Code allows your customer to print reports, view reports, and view run time displays only. The access codes will only appear when logged onto the host and are not saved in a HEX file.

❑ ID Number — Select appropriate I.D. number for host. All host LFPs on the network must have a unique I.D. to communicate with the program. Host I.D. numbers should always be in increments of 10. For example, if the first host is 10, then the second host (if more than one) should be 20, and so on. Be sure to set the external memory module ID if the host ID is changed (see following page).

❑ Unit of Measure — Select U.S., Metric or Imperial for the system. Default units are ounces (US and Imperial) or milliliters (Metric) only.

❑ Water Flush Time — This sets the time the flush solenoid will activate after the pumps have finished. Type in the flush time required to clear the chemical from the tube.

❑ Flush Between Pumps — This option allows you to choose if the system will add flush water <u>between</u> chemical injections before transferring all chemicals to the washer. This provides a barrier of water between non-compatible chemicals in situations when the washer requests multiple chemicals at the same time.

❑ POD Sampling Delay — This selection is for systems built after October 2010 and sets the amount of time that the POD sensor is allowed to detect no flow before causing a POD error. The error delay time applies to all pumps. You can also choose if you wish to have the system shutdown in the event of a POD error. Does not apply to Chem-Trak Jr.

❑ Low Air Pressure — This selection allows you to choose if you wish to shut down the system in the event of a low air pressure condition. Air pressure is detected by an adjustable pressure switch in the control box. The system requires a minimum of 60 PSI air pressure for proper operation. Does not apply to Chem-Trak Jr.

❑ Recalibrate Pumps — This setting tells the system how often to re-calibrate the pumps. Enter the number of times that you want the pump to run (min 10) before re-calibrating again The system keeps track of how many times each pump has ran, and will re-calibrate each pump only when it reaches the number of runs specified. Does not apply to Chem-Trak Jr.

❑ Squeeze Tube Warning — This setting allows you to set the point at which a squeeze tube warning will occur. The system keeps track of the re-calibration data and calculates the percentage of wear based on the reduction in flow rate from when the squeeze tube was last changed. The status of the tube wear (and warnings, if any) will be the very first display you will see when logging onto a host.

❑ Transfer Time — This sets the amount of time that the transfer pump or diverter valve will activate (after the flush time expires) to deliver product to each respective washer. The transfer time should be set long enough to deliver all product to the washer (based on distance and product viscosity).

❑ Air Push Time — This sets the amount of time that the optional air push feature will activate to deliver product to each respective washer (after the flush time and transfer time expire). If air push will not be used, leave this setting at zero. The air push time should be set long enough to clear the delivery line (based on distance and product viscosity). Does not apply to Chem-Trak Jr.

❑ Washer Enable — This selection allows you to set which slave LFPs are connected to the host. Be sure to enable all slaves that are connected. Does not apply to Chem-Trak Jr.

❑ Pump Flush Time — This selection sets additional time that will be added to the normal flush time during transfer. Each pump can have its own flush time if desired. The purpose of this setting is to add extra flush time for pumps that have very viscous products. This helps to ensure that no chemical residue is left in the flush line.

❑ Sensor Type — This setting allows you to select the type of vessel sensor used. Systems built after October 2010 will have the LEVEL type of sensor (black and blue color). Older systems built prior to this date with have the SWITCH type of sensor (black and yellow color). Choose the correct type for your system.
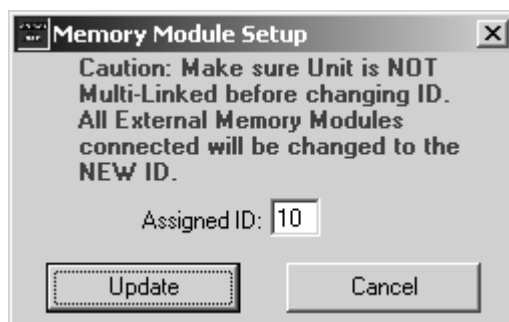
NOTE: Sections highlighted by the dotted lines do not apply to Chem-Trak Jr.

Chem-Trak Host

Unit of Measure:
◉ U.S. ○ Metric ○ Imperial

POBs in System:
◉ 1   ○ 2

Flush:
Water Flush [40] Seconds
☐ Flush Between Pumps

Recalibrate Pumps Every:
[128] Runs

Low Air Pressure:
☑ Shutdown

POD Sampling Delay:
☑ Shutdown
[5] Seconds
☑ Level Sensors Enabled

Squeeze Tube Warning:
[0] %

Transfer Time:
Washer 1 [25] Seconds
Washer 2 [25] Seconds
Washer 3 [25] Seconds
Washer 4 [25] Seconds
Washer 5 [25] Seconds
Washer 6 [25] Seconds

Air Push Time:
Washer 1 [0] Seconds
Washer 2 [0] Seconds
Washer 3 [0] Seconds
Washer 4 [0] Seconds
Washer 5 [0] Seconds
Washer 6 [0] Seconds

Washer Enable:
☑ Washer 1 Enabled
☑ Washer 2 Enabled
☑ Washer 3 Enabled
☑ Washer 4 Enabled
☑ Washer 5 Enabled
☑ Washer 6 Enabled

Pump Flush Time
Pump 1 [0] Seconds   Pump 5 [0] Seconds   Pump 9 [0] Seconds
Pump 2 [0] Seconds   Pump 6 [0] Seconds   Pump 10 [0] Seconds
Pump 3 [0] Seconds   Pump 7 [0] Seconds   Pump 11 [0] Seconds
Pump 4 [0] Seconds   Pump 8 [0] Seconds   Pump 12 [0] Seconds

Sensor Type:
◉ Level   ○ Switch   [OK]   [Cancel]

Setting External Memory ID

If the host ID number is changed, then you <u>must</u> set the external memory module ID to match, otherwise the module will not communicate properly. If the host is multi-linked with other hosts, then you will need to temporarily disconnect the multi-link in order to set the module ID. The multi-link can be re-connected when finished.

(1) Logon to the host.

(2) Click Setup, then Memory Module ID.

(3) The current ID number of the module will be shown. Change the ID number to be the same as the host ID number, then click Update.

Memory Module Setup ☒

Caution: Make sure Unit is NOT
Multi-Linked before changing ID.
All External Memory Modules
connected will be changed to the
NEW ID.

Assigned ID: [10]

[Update]   [Cancel]

WORKING WITH FILES

❑ Saving Setup Program File — After creating a new dispenser setup program while on line or remote, click on Save Setup button, name the file and click OK. The named file will then be saved to the hard drive and displayed in the Setup File directory as a .HEX file.

❑ Viewing/Editing Saved Dispenser Setup Program File (.HEX) — Double click the desired HEX file from the Setup File directory. After the program opens the file, it will prompt you to select view options. File is now ready to be viewed or edited. If changes are made to the file, be sure to click Save Setup when done.

   Note: The name of the open HEX file will be displayed on the title bar of the Reporter display screen.

❑ Printing HEX Files — Click once on the HEX file to select it. Then click the printer icon just above the Setup File window. A message will prompt you that a report file is about to be created, click YES. Click the Reports button to see the new report file (uses the same name as the HEX file, but adds RPT extension to indicate it's a report).

❑ Transferring Saved Setup Program Files to Dispenser — Log on to desired dispenser. Click on desired .HEX setup file located in Setup File directory, then click Send Dispenser File button. You can also transfer by "dragging" the file (Hand with document must appear) to dispenser pump icon and drop.

❑ Deleting Files — To delete files in the Setup File directory, RM-6000 Reporter Module directory or the Report directory, click the file to be deleted and press delete key on PC keyboard. The Reports screen has a delete button that can also be used to delete report files that are no longer needed.

❑ To copy any saved files to a disk (flash drive, CD, etc) use Windows Explorer. Find the WinReporter directory (will likely be under Program Files). Open file folder labeled DATA, then open the folder of the desired location. All HEX, RPT, XLS and DWS files listed here can be copied to a disk, or emailed, as needed.

File Types

❑ HEX Files — These are dispenser setup files that are saved on the PC. HEX files can be transferred to and from a dispenser. HEX files listed in your computer directory can be opened for viewing and editing by double clicking on desired file. Files listed in the RM-6000 Reporter Module directory must be dragged and dropped to the computer directory before they can be viewed or edited. After changes are made to any HEX file, the program will ask you to save changes and to name/rename the file.

❑ RPT Files — These are report files that reside in the computer. A list of RPT files is shown when clicking the Reports button. These files can be viewed by double clicking the desired file.

❑ XLS Files — These are Excel spreadsheet files that contain information exported from report (RPT) files.

❑ DWS Files — These are Daily Washer Summary reports that have been generated from one or all dispensers on the network. Open these reports by double clicking the desired DWS file and print using the printer icon located in the left top corner of the report viewer.

❑ 00/00/00 00:00 (RM-6000 Reporter Module Files) — These files can be Setup, Summary or Cycle Files that were downloaded from a dispenser or from the PC to a RM-6000 Reporter Module. Only setup files can be dragged to the Setup File directory on the PC. After they are transferred, they can be viewed, edited and reused.

RM-6000 Reporter Module File Maintenance

The RM-6000 Reporter Module can be used as a portable memory module for uploading setup files to Knight-Trak II dispensers (cannot be used with Chem-Trak). By programming HEX files on a PC off site, files can then be copied to the RM module memory for transport to the job site.

Setup files can be uploaded to the dispenser using the dispenser's menu #1 functions. HEX files that are to be uploaded using only the LFP-6000 (without a PC) must be located in directory #1. The dispenser can upload only from the #1 directory of the RM module. See the Knight-Trak II programming manual for procedures on uploading files from the RM module.

To manage files within the RM-6000 Reporter Module, click the RM File Directory button located on the File Commands screen. If the button is "grayed out", click Logoff/Reset first, then RM File Directory.

- To delete individual files — select the file to be deleted and press Delete key on your PC.

- To delete all files from directories — click clear button and select directory (or directories) to be cleared.

- To Copy files — Files can be copied from directory to directory by using the drag and drop procedure. Select file using left click, hold down mouse while dragging to desired directory and drop (let go of mouse). Wait for file to transfer and screen to refresh.

- Metric Files — Please note, in metric mode, all formula volume settings stored in the dispenser will be in milliliters. The Knight Trak II dispenser does allow programming in milliliters and liters. However, Reporter can not convert dispenser formula volume settings from liters to milliliters. If you are to use Reporter to program dispensers, you can program pump volumes in milliliters only.

- Maximum memory in any one directory is 32,766 Bytes. Directory (or Directories) must have adequate memory space for new files or files will not transfer. Delete files if necessary to provide enough free space for new files.
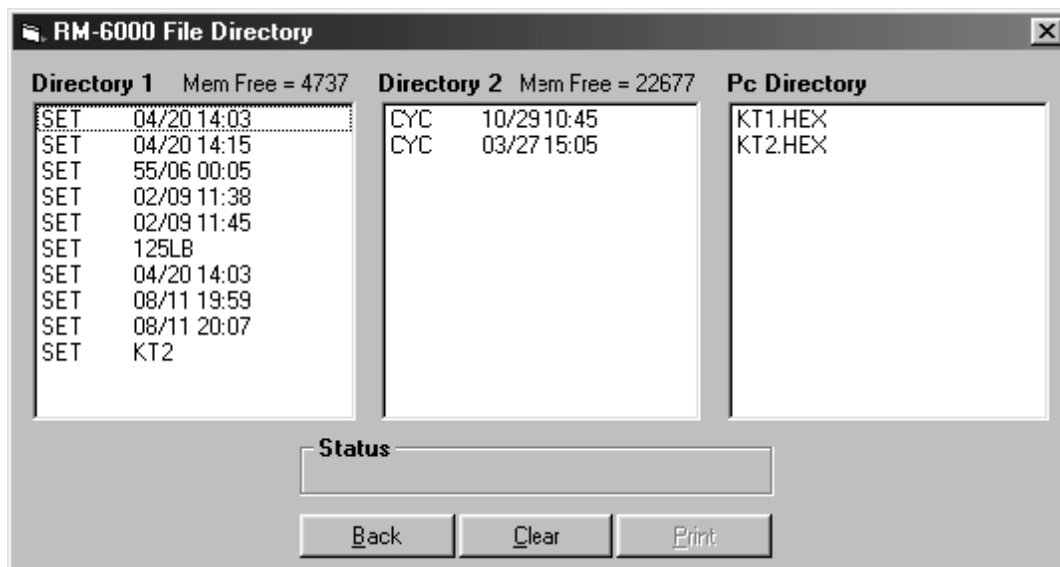
Please note file sizes:

Setup = 2803 bytes
Summary = 5018 bytes
Cycle = 5018 bytes plus 40 bytes per load

Example: Setup, Summary, Cycle Report with 300 Total Loads = 19821 bytes

PRINTING REPORTS

- Make sure your PC and the dispenser(s) have the correct time and date before printing.

- Make sure your PC has a default printer assigned or reports can not be viewed or printed.

- Daily Washer Summary Reports (saved as .DWS) cannot be created for multiple dispensers if they are different types. The dispensers must be alike for Reporter to combine the data. Dispenser formula names must also be the same for all washers to print an accurate Daily Washer Summary.

Creating New Reports

(1) Logon to the dispenser, then click Reports.

(2) When you see the display to the upper right, click New.

(3) When you see the display to the lower right, choose the report parameters detailed in the list below.

(4) Click OK — when the program has completed printing the report, it will be saved in the Reports directory, or sent to the PC's printer (depending on the report destination that was chosen).

Report Parameters

❑ Report Type — Setup shows all dispenser settings. Summary shows a consolidated chemical usage report. Cycle shows a historical tracking of the actual wash formulas that ran. Daily Summary is similar to a regular summary report, but has a custom page layout and will also combine data if multiple washers are selected.

❑ Include Product Cost — Choose if you wish to have costs shown on the report (not available for cycle only).

❑ Are Levels Used — Choose if the setup portion of the report will show only the basic dosages (one level) or if all three available volume "levels" will be printed (only available for report types that include setup information).

❑ Report Dates — Select the time span that the report will cover, using month/day format (not available for setup only). Date range cannot cross over a year end.

❑ Destination — Select PC File to save the report as a file on your PC. Use this option if you do not have a printer connected to your PC and/or you simply wish to view the report on your screen. This option can also be used to create a library of reports for later analysis. Select PC Printer to print report directly without creating a file.

❑ Output File — If you chose to print as a file, you will need to enter a name for the output file that will be created (no more than 6 characters). The program will automatically add the system's ID number to your file name, and will create the file with an extension of .RPT (or .DWS if Daily Washer Summary is chosen).

❑ Dispenser(s) — Select which dispenser you would like to print from by double-clicking the box next to its name. If you have a multilinked network of dispensers, you can click Select All.

Report Files

When you create report files, they are stored on your PC by customer location. This helps to keep reports organized for different accounts. If you change customer locations, then you will only see reports for the selected location when you open the reports menu. To work with your report files, click the Reports button. When you see the display to the upper right, click once on the file name, then choose from the options below.

❑ Print — Allows you to print the selected report file. Print job will be sent to your PC's default printer.

❑ View — Opens the selected report file for viewing. There are various navigation buttons in the report viewer that allow you to move from page to page, adjust zoom percentage, and to print the report.

❑ Export — This feature allows you to export the selected report file into an Excel spreadsheet, or you can merge multiple report files into a single spreadsheet. Your computer must have Microsoft Excel (version 97 or higher) for this function to work correctly. See page 30 for more details.

❑ Delete — Click this button if you wish to delete the selected report file. Be aware that this feature removes the file from your PC completely and does not send the file to Windows "Recycle Bin".
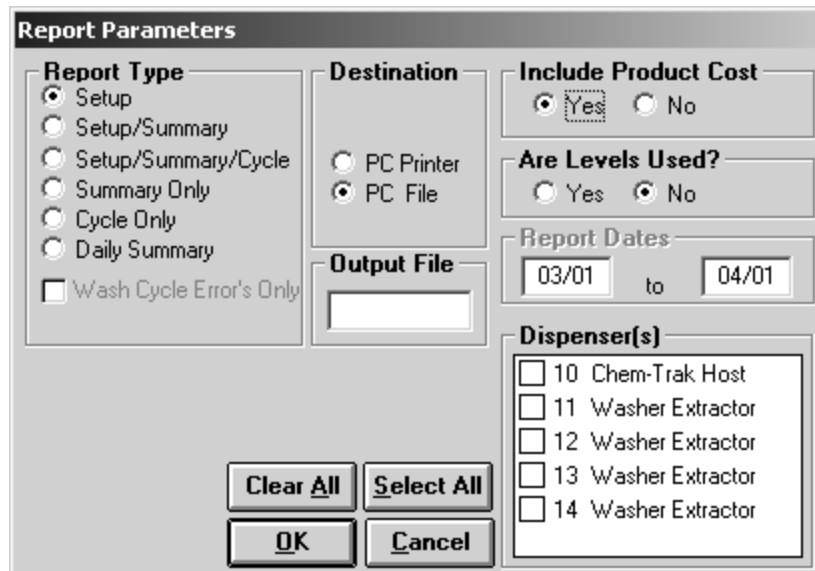
SPREADSHEET FUNCTIONS

The Export function in the Reports menu allows you export a single report file into a Microsoft Excel spreadsheet, or merge multiple report files into a single spreadsheet (if merging reports for multiple dispensers, the chemical names, formula names, and product costs must match). DWS files cannot be exported. After exporting, the spreadsheet can then be manipulated or changed as desired using Excel.

Exporting Single Report

(1) Click the Reports button and you will see the screen to the right.

(2) Click once on the desired report file (RPT) to select it, then click Export.

(3) When you see the display to the lower right, the Export File name will be generated automatically. If you wish to change the name and/or destination of the Export File, click the lower Browse button and make any changes.

(4) Click Process Reports.

(5) When complete, your XLS file will be in the Report directory.

Merging Multiple Reports

(1) Click the Reports button, then click Export (do not select any files from the Reports window).

(2) When you see the display to the lower right, click on the Browse button in the Report File(s) box.

(3) Hold down the CTRL button on your keyboard, then click each file you wish to merge, then click Open.

(4) The Export File name will be generated automatically. If you wish to change the name and/or destination of the Export File, click the lower Browse button and make any changes.

(5) Click Process Reports.

(6) When complete, your XLS file will be in the Report directory.

Spreadsheet Format

❑ Formula Volume Settings — Contains pump volume and delay settings (not on merged spreadsheet).

❑ Formula Weight — Displays individual formula load weights (not on merged spreadsheet).

❑ Pump Product Information — Contains pump flow rates and product costs (not on merged spreadsheet).

❑ Total Loads and Product Cost — Contains Total Loads and Product Cost categorized per shift.

❑ Product Usage — Contains amount and cost of each product for each shift.

❑ Cost Per Load — Displays average cost per load for each shift.

❑ Cost — Displays cost per hundred weight.

❑ Washer Usage — Displays machine on time and hot, cold and steam usage (if so tracked).

❑ Production Weight — Displays total weight per formula per shift.

❑ Wash Cycle Tracking — Contains listing of all wash cycles (not on merged spreadsheet).

❑ Cycle Errors — Contains listing of all wash cycle errors (not on merged spreadsheet).
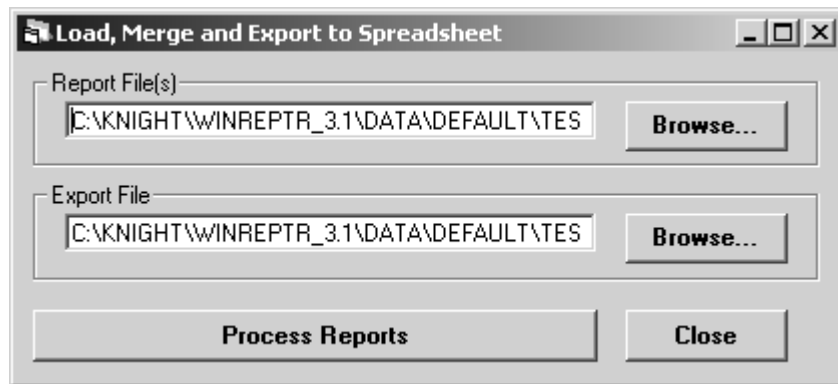
MODEM SETUP

Running Modem Interface Software

(1) Click on the modem interface software icon on your desktop.

(2) The software will automatically "look" for the Knight Reporter cable, as well as the modem and computer interface device that is being used to connect to the dispenser network.

(3) When all device checking is done and the program is running normally, the status box shows "Waiting for Call".

(4) You can minimize the Modem Interface display if you wish to run other programs on the PC while the modem interface software runs in the Windows background.
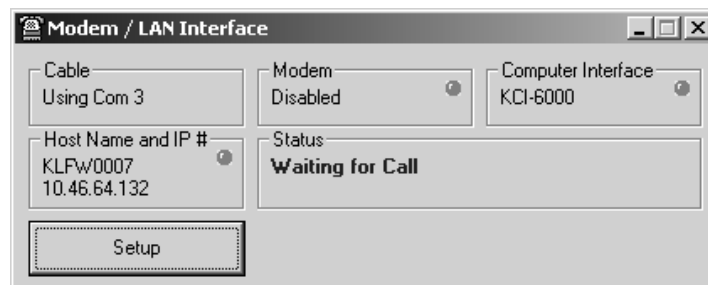
Modem Interface / LAN Configuration Settings

The Setup button allows you to make configuration changes for the modem interface software. Be sure to click OK when you are done.
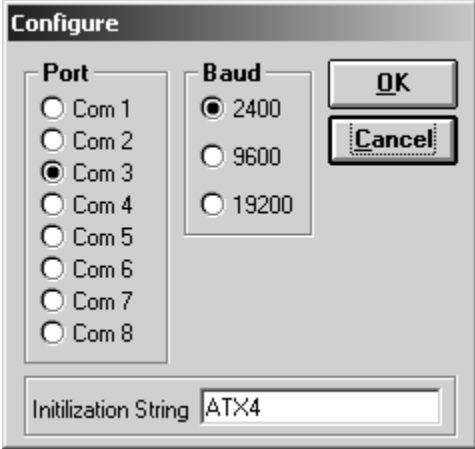
❑ Access Code — This is an extra level of protection to prevent unauthorized users from logging onto the dispensing system. You will be prompted for this code when logging on (via modem) from the remote PC.

❑ Language — You can choose between English and Spanish to change the Modem Interface display.

❑ Modem Init — This initialization string is pre-configured to work properly on most PC's. If the modem interface software is not working properly, check your modem documentation to verify if there is a different string required.

❑ Auto Detect Cable — Turn this setting off is using a USB port.

❑ Cable Com Port — If a USB port is used, choose the com port number that corresponds to the USB port. See page 6 for more details.

❑ Enable Modem — This setting should be selected if the PC's modem will be used to allow remote PC connections with the dispenser.

❑ Enable TCP/IP — This setting should be selected if the PC will be used to allow remote PC connections via a LAN connection or internet.
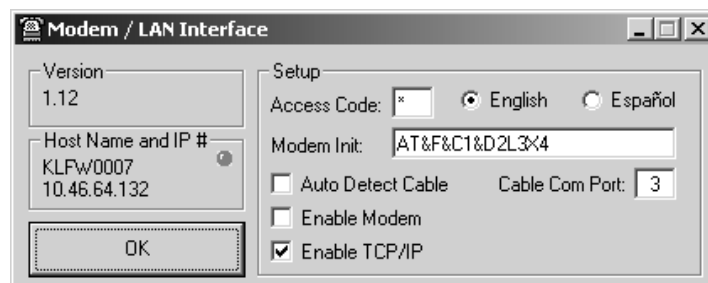
Setting up the remote PC

The remote PC must be configured properly to allow dialing up the dispenser network. The modem on the remote PC can be either an internal or external modem, however you will need to know which com port your modem is using (you may need to check your PC documentation to find this information).

(1) From the File Commands screen on the remote PC click on Setup, then Modem.

(2) When you see the display below, choose the correct com port number.

(3) Baud rate settings: 9600 recommended if an RM is on the other end (dispenser location) 2400 for KCI.

(4) The initialization string should be acceptable for most modems, however if you need to change this setting, consult your modem documentation and enter the correct information in the box.

(5) When all information is entered, click OK.

SYSTEM TEST FUNCTIONS

WinReporter has two test functions that can be used to troubleshoot problems with system operation. They are available only at the File Commands screen. The tests are applicable to Knight-Trak I, Knight-Trak II and Chem-Trak slaves only (there are no tests for a Chem-Trak host).

Diagnostics

This function allows you to test SIB/LMIB operation as well as the LFS (Knight-Trak I only). If at any time during a test a message showing "CHECK CABLE CONNECTIONS" appears, carefully inspect the wiring connections to the component being tested. Shorted or loose wires are the most frequent cause of communication problems.

(1) Logon to the dispenser.

(2) Click Setup, then click Diagnostics.

(3) When the display appears, choose the type of test you wish to perform, then click Test. Watch the diagnostics display window for any additional information about the test being performed.

LFS Display: (KT1 only) Starts a display sequence on the LFS.

LFS Key: (KT1 only) Allows you to press the various buttons on the LFS. The display will respond and show which button is recognized.

LFS Noise: (KT1 only) An indication of one (*) or two stars (**) next to PASS indicates that the LFS passed the electrical noise resistance test. If the display shows anything other than one or two stars, contact Knight.

SIB/LMIB Input: Apply a signal to each of the signal inputs on the SIB and LMIB. The "name" of each input, when signaled, will appear on the display. Pumps will not run when signals are applied during this test.

SIB/LMIB Noise: An indication of one (*) or two stars (**) next to PASS indicates that the SIB and LMIB passed the electrical noise resistance test. If the display shows anything other than one or two stars, contact Knight.
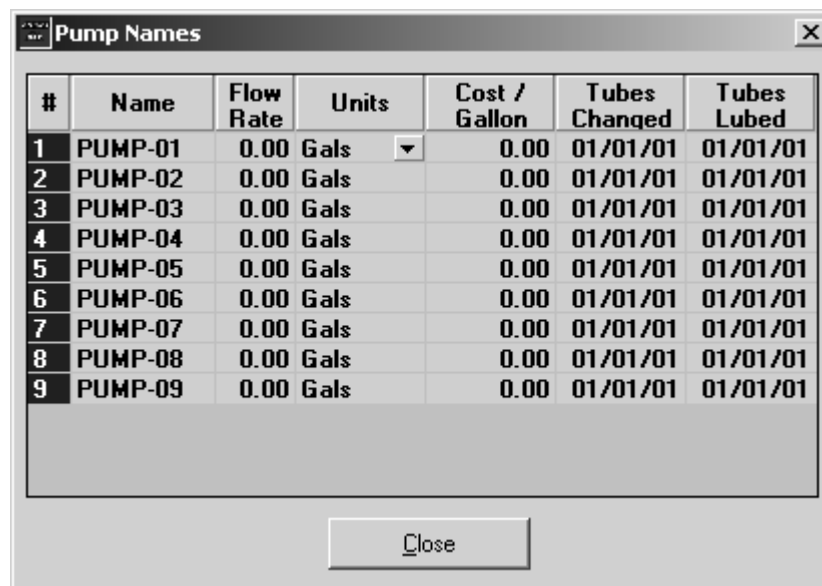
(4) Click Close when finished testing.

DURING INPUT TEST
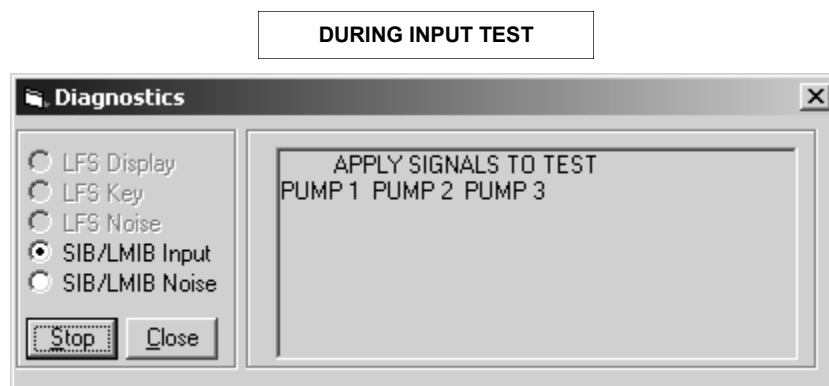
Signal Pump

This function allows you to simulate a signal to a pump. Be sure to choose the formula you wish to test at the keypad of the LFP or LFS before continuing with the steps below.

(1) Logon to the dispenser.

(2) Click Receive Dispenser File.

(3) Click Pump Setup — when the pump information screen appears, click the pump you wish to test to highlight it.

(4) Click Setup, then click Signal Pump.

(5) When Signal Pump is activated, the pump will dispense the FIRST level volume amount programmed. If you signal the same pump again, it will dispense the SECOND volume level amount (if programmed). If you signal the same pump again, it will dispense the THIRD volume level amount (if programmed). If only one volume level is programmed, the same amount will dispense every time the Signal Pump feature is activated.

Pump Names

#	Name	Flow Rate	Units	Cost / Gallon	Tubes Changed	Tubes Lubed
1	PUMP-01	0.00	Gals ▼	0.00	01/01/01	01/01/01
2	PUMP-02	0.00	Gals	0.00	01/01/01	01/01/01
3	PUMP-03	0.00	Gals	0.00	01/01/01	01/01/01
4	PUMP-04	0.00	Gals	0.00	01/01/01	01/01/01
5	PUMP-05	0.00	Gals	0.00	01/01/01	01/01/01
6	PUMP-06	0.00	Gals	0.00	01/01/01	01/01/01
7	PUMP-07	0.00	Gals	0.00	01/01/01	01/01/01
8	PUMP-08	0.00	Gals	0.00	01/01/01	01/01/01
9	PUMP-09	0.00	Gals	0.00	01/01/01	01/01/01

Close

DISCLAIMER / WARRANTY

Knight LLC does not accept responsibility for the mishandling, misuse, or non-performance of the described items when used for purposes other than those specified in the instructions. For hazardous materials information consult label, MSDS, or Knight LLC. Knight products are not for use in potentially explosive environments. Any use of our equipment in such an environment is at the risk of the user, Knight does not accept any liability in such circumstances.

All Knight controls and pump systems are warranted against defects in material and workmanship for a period of ONE year. All electronic control boards have a TWO year warranty. Warranty applies only to the replacement or repair of such parts when returned to factory with a Knight Return Authorization (KRA) number, freight prepaid, and found to be defective upon factory authorized inspection. Bearings and pump seals or rubber and synthetic rubber parts such as "O" rings, diaphragms, squeeze tubing, and gaskets are considered expendable and are not covered under warranty. Warranty does not cover liability resulting from performance of this equipment nor the labor to replace this equipment. Product abuse or misuse voids warranty.

The information and specifications included in this publication were in effect at the time of approval for printing. Knight LLC reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatsoever.