RC30A[™] SOFTWARE

Version 2.1*

For HME System 30

Installation and Operating Instructions



HM ELECTRONICS, INC. HME 14110 Stowe Drive, Poway, CA 92064 USA Phone: 1-800-848-4468 Fax: (858) 552-0172

Minimum Requirements for Use of RC30A[™] Software

- IBM compatible PC with a Pentium[®] compatible microprocessor
- I Minimum of 32 megabytes RAM
- I Minimum of 100 megabytes available hard disk space
- **For direct serial connection:** One available RS-232 serial port and a serial (null-modem) crossover interface cable appropriate for your PC (See Section 2.1.2)
- **For network connections:** One Ethernet network port and an Ethernet cable (See Section 2.1.2) and El30 Ethernet Interface installed in System 30 Timer
- System 30 Timer All versions except Ver 1.12
- I Microsoft[®] Windows[®] 95, Windows[®] 98, Windows[®] NT 4.0 Service Pack 3 or higher, Windows[®] 2000, Windows[®] ME, Windows[®] XP or Windows Vista[™] (Professional and Home editions)
- Familiarity with Windows[®] operating system
- System 30 Drive-Thru Timer System Operating Instructions

END-USER LICENSE AGREEMENT FOR HME RC30A[™] SOFTWARE

IMPORTANT — READ CAREFULLY: This HME End-User License Agreement ("AGREEMENT") is a legal agreement between you (either an individual or a single entity) and HM Electronics, Inc. ("HME") for the HME software product RC30ATM, which includes computer software and may include associated registration files, media, printed materials, sample documents, and "online" or electronic documentation ("SOFTWARE PRODUCT"). The SOFTWARE PRODUCT also includes any updates and supplements to the original SOFTWARE PRODUCT provided to you by HME. Any software provided along with the SOFTWARE PRODUCT that is associated with a separate end-user license agreement is licensed to you under the terms of that license agreement.

By installing, copying, downloading, accessing, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this AGREEMENT. If you do not agree to the terms of this AGREEMENT, do not install or use the SOFTWARE PRODUCT; you may, however, return it to your place of purchase for a full refund.

© 2007 HM Electronics, Inc. The HME logo and product names are registered trademarks of HM Electronics, Inc. All rights reserved. Microsoft, Windows and Windows Vista are trademarks of Microsoft Corporation in the United States and other countries. Pentium is a trademark of Intel Corporation in the U.S. and other countries. InstallShield is a trademark of Macrovision Corporation. All rights reserved.

SOFTWARE PRODUCT LICENSE

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

1) GRANT OF LICENSE. This AGREEMENT grants you the following rights:

a) Applications Software. As an individual, you are granted a world-wide non-exclusive license, which includes only the right to install, use, access, display, run, or otherwise interact with ("RUN") one copy of the SOFTWARE PRODUCT, or any prior version for the same operating system, on a single computer. If you are an entity, you are granted the right to designate one individual within your organization to have the right to use the SOFTWARE PRODUCT in the manner provided above.

b) Storage/Network Use. As an alternative to installing the SOFTWARE PRODUCT on a dedicated computer, you may store or install the SOFTWARE PRODUCT on a storage device, such as a network server, used only to RUN the SOFTWARE PRODUCT on your other COMPUTERS over an internal network; however, you must acquire and dedicate a license for each separate COMPUTER on which the SOFTWARE PRODUCT is RUN from the storage device. A license for the SOFTWARE PRODUCT may not be shared or used concurrently on or by different COMPUTERS.

c) Reservation of Rights. All rights not expressly granted are reserved by HME.

2) DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.

a) Limitations on Reverse Engineering, Decompilation, and Disassembly. You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT.

b) Separation of Components. The SOFTWARE PRODUCT is licensed as a single product. Its component parts may not be separated for use on more than one COMPUTER.

c) Trademarks. This AGREEMENT does not grant you any rights in connection with any trademarks or service marks of HME.

d) Rental. You may not rent, lease, or lend the SOFTWARE PRODUCT.

e) Support Services. HME may provide you with support services related to the SOFTWARE PRODUCT ("Support Services"). Use of Support Services is governed by the HME policies and programs described in the user manual, in "online" documentation, and/or in other HME-provided materials. Any supplemental software code provided to you as part of the Support Services shall be considered part of the SOFTWARE PRODUCT and subject to the terms and conditions of this AGREEMENT. With respect to technical information you provide to HME as part of the Support Services, HME may use such information for its business purposes, including for product support and development. HME will not utilize such technical information in a form that personally identifies you.

f) Software Transfer. The initial licensee of the SOFTWARE PRODUCT may make a one-time permanent transfer of this AGREEMENT and SOFTWARE PRODUCT only directly to an end user. This transfer must include all of the SOFTWARE PRODUCT (including all component parts, the media and printed materials, any upgrades, this AGREEMENT, and, if applicable, the Certificate of Authenticity). Such transfer may not be by way of consignment or any other indirect transfer. The transferee of such one-time transfer must agree to comply with the terms of this AGREEMENT, including the obligation not to further transfer this AGREEMENT and/or SOFTWARE PRODUCT.

g) Termination. Without prejudice to any other rights, HME may terminate this AGREEMENT if you fail to comply with the terms and conditions of this AGREEMENT. In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

3) UPGRADES. If the SOFTWARE PRODUCT is labeled as an upgrade, you must be properly licensed to use a product identified by HME as being eligible for the upgrade in order to use the SOFTWARE PRODUCT. A SOFTWARE PRODUCT labeled as an upgrade replaces and/or supplements (and may disable) the product that formed the basis for your eligibility for the upgrade. You may use the resulting upgraded product only in accordance with the terms of this AGREEMENT. If the SOFTWARE PRODUCT is an upgrade of a component of a package of software programs that you licensed as a single product, the SOFTWARE PRODUCT may be used and transferred only as part of that single product package and may not be separated for use on more than one COMPUTER.

4) COPYRIGHT. All title and copyrights in and to the SOFTWARE PRODUCT (including but not limited to its code, appearance, structure, organization along with any documents, forms, text, and images incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT are owned by HME or its suppliers. All title and intellectual property rights in and to the content that may be accessed through use of the SOFTWARE PRODUCT are the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This AGREEMENT grants you no rights to use such content. If this SOFTWARE PRODUCT contains documentation that is provided only in electronic form, you may print one copy of such electronic documentation. You may not copy the printed materials accompanying the SOFTWARE PRODUCT.

5) BACKUP COPY. After installation of one copy of the SOFTWARE PRODUCT pursuant to this AGREEMENT, you may keep the original media on which the SOFTWARE PRODUCT was provided by HME solely for backup or archival purposes. If the original media is required to use the SOFTWARE PRODUCT on the COMPUTER, you may make one copy of the SOFTWARE PRODUCT solely for backup or archival purposes. Except as expressly provided in this AGREEMENT, you may not otherwise make copies of the SOFTWARE PRODUCT or the printed materials accompanying the SOFTWARE PRODUCT.

6) EXPORT RESTRICTIONS. You agree that you will not export or re-export the SOFTWARE PRODUCT, any part thereof, or any process or service that is the direct product of the SOFTWARE PRODUCT (the foregoing collectively referred to as the "Restricted Components"), to any country, person or entity subject to U.S. export restrictions. You specifically agree not to export or re-export any of the Restricted Components (i) to any country to which the U.S. has embargoed or restricted the export of goods or services, which currently include, but are not necessarily limited to Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria, or to any national of any such country; (ii) to any person or entity who you know or have reason to know will utilize the Restricted Components in the design, development or production of nuclear, chemical or biological weapons; or (iii) to any person or entity who has been prohibited from participating in U.S. export transactions by any federal agency of the U.S. government. You warrant and represent that neither the BXA nor any other U.S. federal agency has suspended, revoked or denied your export privileges.

7) NO LEGAL ADVICE. You agree and acknowledge that HME is not engaged in rendering legal, accounting, or other professional advice. If legal advice or other expert assistance is required, the services of a competent professional person should be sought. Any sample documents included with the SOFTWARE PRODUCT are for illustration only and should not be used as the basis for any transaction or advice.

8) MISCELLANEOUS

a) If you acquired this SOFTWARE PRODUCT in the United States, this AGREEMENT is governed by the laws of the State of California.

b) If you acquired this SOFTWARE PRODUCT in Canada, unless expressly prohibited by local law, this AGREEMENT is governed by the laws in force in the Province of Ontario, Canada; and, in respect of any dispute which may arise hereunder, you consent to the jurisdiction of the federal and provincial courts sitting in Toronto, Ontario. If this SOFTWARE PRODUCT was acquired outside the United States, then local law may apply.

c) If you have any questions concerning this AGREEMENT, or if you desire to contact HME for any reason, please write to: HM Electronics, Inc., 14110 Stowe Drive, Poway, San Diego, California, 92064, U.S.A.

9) LIMITED WARRANTY

a) LIMITED WARRANTY FOR SOFTWARE PRODUCTS ACQUIRED IN THE U.S. AND CANADA. HME warrants that (a) the SOFTWARE PRODUCT will perform substantially in accordance with the accompanying written materials for a period of ninety (90) days from the date of receipt, and (b) any Support Services provided by HME shall be substantially as described in applicable written materials provided to you by HME, and HME support engineers will make commercially reasonable efforts to solve any problem issues. Some states and jurisdictions do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you. To the extent allowed by applicable law and not disclaimed in this Agreement, implied warranties on the SOFTWARE PRODUCT, if any, are limited to ninety (90) days.

b) CUSTOMER REMEDIES. HME's and its suppliers' entire liability and your exclusive remedy shall be, at HME's option, either (a) return of the price paid, if any, or (b) repair or replacement of the SOFTWARE PRODUCT that does not meet HME's Limited Warranty and which is returned to HME with a copy of your receipt. This Limited Warranty is void if failure of the SOFTWARE PRODUCT has resulted from accident, abuse, or misapplication. Any replacement SOFTWARE PRODUCT will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer. Outside the United States, neither these remedies nor any product support services offered by HME are available without proof of purchase from an authorized international source.

c) NO OTHER WARRANTIES. THE LIMITED WARRANTY ABOVE IS EXCLUSIVE AND IN LIEU OF ALL OTHER CONDITIONS AND WARRANTIES FOR THE SOFTWARE AND DOCUMENTATION. HME AND ITS SUPPLIERS MAKE NO OTHER CONDITIONS OR WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, AND EXPRESSLY DISCLAIM ALL OTHER CONDITIONS AND WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED CONDITIONS OR IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT FOR THE SOFTWARE AND DOCUMENTATION, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW.

d) LIMITED LIABILITY. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT AND UNDER NO LEGAL THEORY SHALL HME OR ITS SUPPLIERS BE LIABLE TO YOU FOR ANY COSTS OF SUBSTITUTE PRODUCTS, OR FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, PUNITIVE OR INDIRECT DAMAGES OF ANY KIND ARISING OUT OF THE LICENSE OF, USE OF, OR INABILITY TO USE ANY HME SOFTWARE OR DOCUMENTATION, EVEN IF HME HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL HME'S OR ITS SUPPLIERS' LIABILITY EXCEED THE LICENSE FEE PAID BY YOU. THIS LIMITATION OF LIABILITY AND RISKS IS REFLECTED IN THE PRICE OF THE SOFTWARE LICENSE.

10) AUDIT. During the term of this Agreement and for three (3) years after termination or expiration, you will maintain complete records regarding your use and distribution of the Software. Upon reasonable notice to you, HME may audit, at HME's expense, your books and records to determine your compliance hereunder. In the event any such audit reveals that you have underpaid HME by an amount greater than five percent (5%) of the amounts due HME in the period being audited, or that you have knowingly breached any material obligation hereunder, then, in addition to such other remedies as HME may have, you shall pay or reimburse to HME the cost of the audit.

11) U.S. GOVERNMENT RESTRICTED RIGHTS. The Software and accompanying documentation are deemed to be "commercial computer software" and "commercial computer software documentation," respectively, pursuant to DFAR Section 227.7202 and FAR Section 12.212, as applicable. Any use, modification, reproduction, release, performance, display or disclosure of the software and accompanying documentation by the U.S. Government shall be governed solely by the terms of this Agreement and shall be prohibited except to the extent expressly permitted by the terms of this Agreement. You must affix the following legend to each copy of the Software:

Use, duplication, reproduction, or transfer of this commercial Software and accompanying documentation is restricted in accordance with FAR 12.212 and DFARS 227.7202 and by a license agreement. Contact HM Electronics, Inc., 14110 Stowe Drive, Poway, San Diego, California, 92064 U.S.A.

HME DISCLAIMS ANY REPRESENTATION OR WARRANTY MADE BY ANY DISTRIBUTOR, RESELLER OR DEALER TO YOU WHETHER EXPRESS OR IMPLIED.

Should you have any questions concerning this AGREEMENT, or if you desire to contact HME for any reason, please contact us: HM Electronics, Inc., 14110 Stowe Drive, Poway, San Diego, California, 92064, U.S.A.

TABLE OF CONTENTS

| SECT | ION 1. RC30A [™] DESCRIPTION | 1 |
|-------|--|----|
| 1.1 | RC30A [™] FEATURES | |
| 1.2 | TECHNICAL SUPPORT | 2 |
| SECT | ION 2. EQUIPMENT AND SOFTWARE INSTALLATION | 3 |
| 2.1 | CABLE CONNECTIONS | 3 |
| 2.1.1 | Network (Ethernet) Cable Connections for a Network-enabled System 30 Timer | |
| | (Using EI30 Ethernet Interface for System 30) | 3 |
| 2.1.2 | Direct Serial Cable Connection | 4 |
| 2.2 | INSTALLING RC30A [™] SOFTWARE | 6 |
| 2.3 | UNINSTALLING RC30A [™] SOFTWARE | 10 |
| SECT | ION 3. RC30A [™] OPERATION | 11 |
| 3.1 | AUTHORIZING RC30A [™] | 11 |
| 3.2 | CONFIGURING RC30A [™] FOR RAW CAR DATA COLLECTION | |
| 3.2.1 | Configuring the RC30A [™] Shortcut | 13 |
| 3.2.2 | Setting Up the Car Data Automatic Collection Scheduler | 16 |
| 3.3 | RUNNING RC30A [™] FOR RAW CAR DATA COLLECTION | |
| 3.3.1 | Successful Data Collection | |
| 3.3.2 | Unsuccessful Data Collection | |
| 3.3.3 | Data Format of RC30A [™] | 23 |
| 3.3.4 | Exporting RC30A [™] Data to Another Software | |
| APPE | NDIX A: CHANGING WINDOWS REGIONAL DATE FORMAT | |
| APPE | NDIX B: LOG FILE AND DEBUG FILE FORMATS | 27 |

LIST OF FIGURES

| 1. | Computer connected directly to a network-enabled System 30 Timer | 3 |
|----|--|---|
| 2. | Computer connected via hub/switch or router to a network-enabled System 30 Timer | 3 |
| 3. | RS-232 cable pin connections (PC to a System 30 Timer) | 4 |
| 4. | PC to a System 30 Timer direct serial cable connections | 5 |

SECTION 1. RC30A[™] DESCRIPTION

The purpose of the RC30A[™], Raw Car Data Acquisition Software for System 30 Timers, is to gather real-time car data from a System 30 Timer, connected through an Ethernet port or a serial communication part to a percent communication pertension part to a percent communication percent communication pertension percent communication percent communica

- communication port to a personal computer. The RC30ATM can be run from one of the following:
- A Task Scheduler provided by the Windows[®] operating system.
- A manual user-initiated, on-demand basis from a shortcut.
- Another application that is able to run the RC30A[™] using command line arguments.

RC30A[™] is used primarily by customers (such as IT Departments) that run a "batch" process in the background, to collect Raw Car Data from the Timer.

To acquire data from a timer directly connected to the "back office" PC on which RC30A[™] is running, this software runs in the following sequence:

- **1.** Connects to a Timer.
- 2. Polls for Raw Car Data from the Timer.
- 3. Formats the Raw Car Data in ASCII, delimited text.
- 4. Disconnects from the Timer.
- 5. Saves text to a file either by appending the data or creating a new file.

The RC30A[™] software does not support a user interface for controlling its operation, but uses command line arguments to determine its mode of behavior including:

- I The communications port it will use to poll the System 30 Timer.
- The network or direct serial communications parameters it will use to communicate with the System 30 Timer (For network: IP Address, IP Port — For direct serial: Baud Rate, etc).
- I The file name where the retrieved data is stored.
- I The delimiter used to format the data into ASCII, spreadsheet-friendly format.
- Date/Time format.

The RC30A[™] software does support a user interface for registering the product, indicating the status of its processing, its internal states and any error conditions that may occur during the registration process.

For network connections to multiple System 30 Timers from a central PC, multiple copies of RC30A[™] can be run simultaneously using the Windows[®] task scheduler or other user-provided methods. This reduces the amount of time needed to collect data from multiple Timers.

1.1 RC30A[™] FEATURES

RC30A[™] provides the following major features listed below:

- RC30A[™] can be connected to one HME System 30 Timer at a time via network or direct serial connection.
- **!** RC30A[™] is able to acquire raw car data from the connected timer.
- RC30A[™] is able to store large amounts of raw car data on a scheduled and ondemand basis in an ASCII text file.
- RC30A[™] stores raw car data in a user-specified, delimited text format for importation into third party data applications such as Microsoft[®] Excel[®], etc.
- **!** RC30A[™] can be run from a command line with command line arguments.
- **!** RC30A[™] can be run from other programs, including the Windows[®] task scheduler.
- **I** RC30A[™] can be run from a shortcut.
- Multiple copies of RC30A[™] can be run simultaneously in "Quiet Mode," to speed up collection of car data over multiple network connections.

1.2 TECHNICAL SUPPORT

For activation of this product, or for technical assistance, call HME Technical Support at 1-800-848-4468 or Fax 858-552-0172 (Attn: Technical Support).

SECTION 2. EQUIPMENT AND SOFTWARE INSTALLATION

2.1 CABLE CONNECTIONS

The cables mentioned below can be obtained from a computer hardware dealer or can be ordered by calling the HME Sales Department at (858) 535-6060. HME cables are available in 10 ft. (3.05 meter) and 50 ft. (15.24 meter) lengths.

2.1.1 Network (Ethernet) Cable Connections for a Network-enabled System 30 Timer (Using EI30 Ethernet Interface for System 30)

Depending on your local network configuration, connect the network-enabled System 30 Timer (EI30) to your network according to one of the following examples. A networkenabled System 30 Timer has an EI30 installed to convert Ethernet to serial communications to and from the Timer.

! Direct network connection

If you do not have any connections to your computer's network connector, you can connect the computer directly to the network-enabled System 30 Timer (EI30) using a crossover Ethernet cable as shown in Figure 1.



Figure 1. Computer connected directly to a network-enabled System 30 Timer (EI30)

! Indirect network connection

If you already have a connection between your computer's network connector and other network devices, such as a hub/switch or router, you can connect the networkenabled System 30 Timer (EI30) to the same hub/switch or router using a standard straight-through Ethernet cable as shown in Figure 2.



Figure 2. Computer connected via hub/switch or router to a network-enabled System 30 Timer (EI30)

2.1.2 Direct Serial Cable Connection

An RS-232 serial interface cable can be used to connect the computer (PC) to a System 30 Timer. It must have a standard 9-pin female "D" connector at the timer end, and a 9-pin or 25-pin female "D" connector at the computer's end (depending on whether a 9-pin or 25-pin serial input connector is available on your PC).

- It must be shielded to prevent interference.
- Maximum cable length should not exceed 50 ft. (15.24 meters) for reliable communication.
- It must be a **crossover** (null modem) cable (See diagram below).
- Pin connections for the cable wires must be as shown in Figure 3.



Figure 3. RS-232 cable pin connections (PC to a System 30 Timer)

Connect the cable directly from the computer to the timer unit as follows. Refer to Figure 4.

- Plug the 9-pin female connector on the interface cable into the connector on the bottom of the System 30 Timer. Tighten the screws to secure the connector to the unit.
- Plug the female 9-pin or 25-pin connector on the other end of the interface cable into the serial port connector on the back of the PC.

NOTE: Be certain you have the correct interface cable for your PC. Some PC's have either two 25-pin connectors or two 9-pin connectors, and some have one of each.



Figure 4. PC to System 30 Timer direct serial cable connections

2.2 INSTALLING RC30A[™] SOFTWARE

If you have properly connected the System 30 Timer to your PC using the connections described in the previous section, you are ready to install the RC30A[™] software on your computer.

NOTE: Before installing the RC30A[™] software, close all other open software.

To install RC30A[™] under Windows[®] 95, Windows[®] 98, Windows[®] ME, Windows[®] NT4.0, Windows[®] 2000, Windows[®] XP or Windows Vista[™]:

- Insert the CD into a selected CD-ROM drive. Auto Setup will start installation.
- If Auto Setup does not start:
 - 1. Under Windows[®] Internet Explorer[®] or File Manager, double click on the CD-ROM drive where the CD is inserted.
 - 2. Double click on the setup.exe file.

One of the screens below will appear.

| InstallShield | | |
|---------------|--|--|
| 17 | Setup has completed configuring the Windows Installer on your system. The system needs to be restarted in order to continue with the installation. Please click Restart to reboot the system. | |
| | Restart | |

If the screen above appears, click on the **Restart** button to reboot your system.



When the screen above appears, select **Next >** to continue.

| License Agreement Please read the following lice | ense agreement carefully. | |
|--|---|--|
| END-USER LICE | NSE AGREEMENT FOR HME SOFTWARE | RC30A TM |
| BUDOPTANT PEAD CAPPER | | 2012.024 |
| ("ACREEMENT") is a legal ag entity) and HM Electronics, E which includes computer soft printed materials, sample do ("SOFTWARE PRODUCT") is software provided along with servente and ware lies with | ULLY: I has HME End-User Lateense Agree geement between you (either an individ) net ("HME") for the HME software produ tware and may include associated registr cuments, and "online" or electronic doct the SOFTWARE PRODUCT also includes SOFTWARE PRODUCT provided to you b the SOFTWARE PRODUCT that is assoc | ment ual or a single ct RC30A TM , ation files, media, umentation s any updates and y HME Any iated with a we of the biserse |
| ("ACREEMENT") is a legal agentity) and HM Electronics, E which includes computer soft printed materials, sample do. ("SOFTWARE PRODUCT") is supplements to the original is software provided along with some the and ware likenee are in the license and the terms in the license are in the license and the terms in the license are in the license. | ULLY: I has HME End-User Lacense Agree greement between you (either an individ) ne. ("HME") for the HME software produc tware and may include associated registr cuments, and "online" or electronic doct the SOFTWARE PRODUCT also include: SOFTWARE PRODUCT provided to you b the SOFTWARE PRODUCT that is assoc moment is licensed to you under the term nse agreement | ment ual or a single et RC30A TM , vation files, media, umentation s any updates and y HME. Any iated with a meet thet license Print |
| ("ACREEMENT") is a legal agentity) and HM Electronics, Is which includes computer soft printed materials, sample do. ("SOFTWARE PRODUCT"). 1 supplements to the original software provided along with account and war likenes are are also and war likenes are are also and war likenes are are also and war likenes are are and war likenes are are and war likenes are are also and war likenes are are are also and war likenes are are are are are are are are are are | ULLY: I has HME End-User Lacense Agree presenent between you (either an individ) nc. ("HMF") for the HME software produc ware and may include associated registr truments, and "online" or electronic doct The SOFTWARE PRODUCT also include: SOFTWARE PRODUCT provided to you b the SOFTWARE PRODUCT that is assoc meanant is licensed to you under the term nse agreement the license agreement | In entity of the second |

Please read all of the license agreement carefully.

If you do not agree to comply with the license agreement, click on **I do not accept . . .** and **Cancel**, or simply click on **Cancel** and the RC30A[™] software installation will stop.

If the license agreement is acceptable, click on I accept . . ., and select Next >.



Read the Readme.txt file for information regarding the use of this product, then select Next >.

| 记 RC30A - InstallShield Wizard | × |
|---|---------------|
| Customer Information | |
| Please enter your information. | |
| User Name: | |
| Your Name | |
| Organization: | |
| Your Organization | |
| | |
| | |
| Install this application for: | |
| Anyone who uses this computer (all users) | |
| C Only for me | |
| | |
| InstallShield | |
| < Back | Next > Cancel |

Enter the appropriate information under <u>User Name</u> and <u>Organization</u>, and select **Next** >.



Select **Next** > to install RC30A[™] in the folder shown on the screen.

If you would like to install RC30ATM in a different folder than the one shown on the screen, select **Change** to go to the Windows[®] Explorer and choose another folder. When you return to this screen, select **Next** > to install RC30ATM in the folder shown on the screen.

| RC30A - InstallShield Wizard | × |
|--|----------|
| Ready to Install the Program The wizard is ready to begin installation. | |
| If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard. | |
| Current Settings: | |
| Setup Type: | |
| ТурісаІ | |
| Destination Folder: | |
| C:\Program Files\HME\RC30\ | |
| User Information: | |
| Name: Your Name | |
| Company: Your Organization | |
| | |
| InstallShield < Back Install Cancel | |

Read the information on the screen. If the Destination Folder shown is acceptable, select Install. Please wait while RC30A[™] software is installed. If you would like to stop the installation at any time, select Cancel.



! Your RC30A[™] software installation has been completed. Select **Finish** to close the Installation Wizard.

2.3 UNINSTALLING RC30ATM SOFTWARE

To uninstall RC30A[™] software from your computer, complete the steps below.

! Go to the **Control Panel**.



Double click on the Add/Remove Programs icon.

Add/Remove Programs

Select **RC30A[™]** and select to remove the application.

Follow the screens to uninstall the RC30A[™] software.

SECTION 3. RC30A[™] OPERATION

3.1 AUTHORIZING RC30A[™]

The installation process creates a shortcut on your PC desktop for the purpose of running RC30A[™] the first time, to activate its use.

- From the desktop, double click on the RC30ATM shortcut icon to start the RC30ATM software. RC30A
- When the following screen appears, call HME Technical Support at 1-800-848-4468 for an authorization code. Have the Installation ID (as shown on the screen below) and the Product Serial # (from the CD envelope) ready to give to the Technical Support representative. The representative will guide you through the authorization process.

| **** Auth | orize Application | X |
|----------------------|---|---|
| PI | lease enter ' RC30A ' Serial Number and Authorization Code and hit OK | |
| | Install ID (8 characters)- 38BC8DEA | |
| Pro | oduct Serial # (8 characters)- | |
| Author | rization Code (8 characters)- | 1 |
| | OK. Cancel | |
| Please c (800) 84 | contact your HME customer service representative for authorizing 'RC30A ' at 8-4468. | |

After your RC30A[™] has been authorized, the software will attempt to run. The following help screen will be displayed. The Command line arguments on this screen will be explained in the next section.

| CarData | Scheduler 🔀 | | | |
|---------------|---|--|--|--|
| | RC30A Ver 2.10 (CarDataScheduler) Command Line Arguments: | | | |
| /H (for help) | | | | |
| | Serial Settings: /C <serial com="" port=""> (range of 1-8) [default = 1] /B<baud rate=""> (9600, 19200 or 38400) [default = 38400]</baud></serial> | | | |
| | Network Settings: /I <network address="" ip=""> (example: 192.168.1.99 or www.timer.unit) [no default] /P<network ip="" port=""> (range of 1024-65535) [default = 3255] /R<network port="" telnet=""> (range of 1-65535) [default = 23]</network></network></network> | | | |
| | Other Settings (for both serial and Network): /F <car data="" filename=""> [default = RCData.RC1] /D<delimiter> (one character, either t or ,) [default = t for tab] /T<date format="" time=""> 1 for 'MMM DD,YY hh:mm A/P' 2 for 'mm/dd/yy hh:mm am/pm' 3 for '(Regional Short Date) hh:mm:ss AM/PM' [default = 1] /Q (for quiet, no dialog box mode) [default = not /Q]</date></delimiter></car> | | | |
| | Logging: /L <log filename=""> [default = logfile.txt in working directory] /S<max file="" log="" size=""> (range of 50-1024KB) [default = 100] /E<max debug="" file="" size=""> (range of 50-2048 KB) [default = 2048]</max></max></log> | | | |
| | NOTE: /C command selects serial connection /I command selects Network connection /R command selects reliable connection to EI30 (For EI30 only) causes RC30A to issue a reset command over Telnet to EI30 during Network connection attempts. /E command selects debugging of communications link by logging to a debug file in the \DebugLog folder (Used by Tech Support). | | | |

NOTE: RC30A provides you the capability to customize the **date format** of the Raw Car Data text file. The date format can be modified using Microsoft[®] Windows[®] **Regional and Language Options** by following the directions in Appendix A. Changing the date format will affect all Windows[®] applications.

Select **OK** to continue.

3.2 CONFIGURING RC30ATM FOR RAW CAR DATA COLLECTION

After your RC30A[™] has been authorized, it must be configured to gather raw car data from the System 30 Timer as follows.

3.2.1 Configuring the RC30A[™] Shortcut

RC30A[™] can be started manually by running the application from a shortcut. Use the following instructions to configure the shortcut.



Right click on the RC30A[™] shortcut on your desktop and select **Properties**.

| RC30A Properties | | | | |
|---|--|--|--|--|
| General Shortcut Compatibility | | | | |
| HME RC30A | | | | |
| Target type: Application | | | | |
| Target location: RC30 | | | | |
| Iarget: rogram Files\HME\RC30\CarDataScheduler.exe" | | | | |
| Start in: "C:\Program Files\HME\RC30\" | | | | |
| Shortcut <u>k</u> ey: None | | | | |
| <u>B</u> un: Normal window | | | | |
| Comment | | | | |
| Eind Target Change Icon Advanced | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| OK Cancel Apply | | | | |

- I Click on the **Target** field and cursor to the right end of the text.
- Remove /H from Target in order for RC30A to run.
 If this is not removed, the program cannot execute.
- Enter a space followed by the applicable command line arguments from the table on the next page, separating each command by a space.

| Settings | Command Line Argument | Description | Where | Default (If you do not specify argument) | Note |
|--|-----------------------------|--|---|---|---|
| Serial | /Cx | Select Serial Com Port | x = 18 Serial Com Ports 1-8 | 1 | For Direct Serial Cable or USB-to- Serial Adapter/ Direct Serial Cable connection to the System 30 Timer. |
| | /Bx | Serial Baud Rate | x = 9600, 19200 or 38400 | 38400 | Be certain the baud rate matches the setting the System 30 Timer is using. Check the System 30 Installation Instructions to verify or alter the System 30 Timer's baud rate. For network connections, this setting adjusts the EI30 serial interface. |
| Network (EI30) | /IAddress | Network IP Address of EI30 | Address = IP address of EI30 (System 30 Timer) (Example: 192.168.1.99 or www.timer.unit) | None | For Ethernet connection to El30 (Ethernet Interface installed in the System 30 Timer). |
| | /P# | Network IP Port of EI30 | # = IP port number ranges from 1024 to 65,535 | 3255 | For Ethernet connection to El30 (Ethernet Interface installed in the System 30 Timer). |
| | /R# | Telnet Address of El30 | # = IP port number ranges from 0 to 65,535 | 23 | <i>If command is used</i> , it causes RC30A [™] to Telnet to EI30 at the specified port and to issue a reset command when a network connection fails to be created. Used in networks with intermittent connectivity. |
| Other (Both serial and network) | /FName | Car Data File | Name = filename including path | .\RCData.RC 1 | You must specify a valid filename and path where you want to collect the raw car data. |
| | /Dx | Delimiter to separate fields in the Car Data | x = character used to delimit (Either "t" for tab or "," for comma). | t | |
| | /T# | Date/ Time Format in Car Data | # = 1 for MMM DD, YY hh:mm A/P # = 2 for mm/dd/yy hh:mm am/pm # = 3 for Regional Short Date hh:mm:ss AM/PM | 1 | Selects the date format of the Raw Car Data. NOTE: "Date" follows the format of regional PC time settings. Please consult your PC operating system manual. |
| | /Q | Quiet Mode (No dialog box) | No Arguments | | <i>If this command is used</i> , it causes RC30A [™] to run without displaying a dialog box. Confirm operation of RC30A [™] using the /L option. |
| Logging | /LName | Log file name and path | Name = filename including path | .\logfile.txt (in working directory) | Used to log RC30A [™] activity to a specified file for use in verifying correct operation. NOTE: If multiple copies of RC30A [™] are going to run at the same time, a unique log file name should be specified for each copy. |
| | /S# | Max size of log file | # = Maximum size of file in Kbytes from 50 to 1024Kb | 100 (100Kbytes) | Used to control the maximum size log file. If size is exceeded, a new log file is created and the old renamed to Name.old. |
| | /E# | Debug file size when debugging communications (Used by HME Tech Support) | # = Maximum size of file in Kbytes from 50 to 2048Kb | 2048 (2048Kbytes) | <i>If command is used</i> , RC30A [™] creates a .\DebugLog folder containing a debug file for the specified IP address or serial connection. |

I Click on **OK** button to accept changes to the command line arguments for the application.

| The following is an example of the target line for a shortcut: | | | | |
|--|---|--|--|--|
| "c:\Program Files | "c:\Program Files\HME\RC30A\CarDataScheduler.exe" /C1 /B38400 /FC:\test\a.txt /Dt/T3 | | | |
| where: | | | | |
| /C1 /B38400 /FC a file called "a.t /Dt | selects comm. port 1 selects a baud rate of 38400 bits per second selects a test folder on the C: drive and puts data in xt" selects a tab as a delimiter for separating data fields in the file | | | |

NOTE: It is recommended that you not use the /Q Quiet Mode command until you have properly tested the RC30A[™] software.

If you are using the /Q command, you will need to use the /L command to confirm proper operation. Refer to Appendix B for information regarding log files.

! Go to Section 3.3 to run the RC30A[™] software.

3.2.2 Setting Up the Car Data Automatic Collection Scheduler

To set up automatic collection of Raw Car Data on a regularly scheduled basis, use the Windows[®]-supplied Task Scheduler as follows.

If you are using an operating system older than Windows[®] 98, such as Windows[®] 95 or NT, or Windows Vista[™] follow the procedures described in the Windows Help. This Help can be accessed from the **Start** button on the Task Bar.

If you are using Windows[®] 98, Windows[®] ME or 2000, the following steps describe the procedure for adding RC30A[™] to the Task Scheduler.

Double click on the My Computer icon on your main computer screen.

| My Computer |
|-------------|

Double click on the Scheduled Tasks icon from the My Computer folder, and the Scheduled Tasks screen will appear.



If you are using Windows[®] XP, select **Start**, **Control Panel** and then select **Scheduled Tasks**.



Double click on Add Scheduled Task to add RC30A[™].



- I To locate and open the RC30A[™] Car Data Scheduler:
 - 1. Click on the Browse button.
 - 2. Locate the RC30A installation directory. Default is C:\Program Files\HME\RC30\.



Highlight CarDataScheduler.exe and select **Open**.



Select the period in which the application will be run, then select Next >.



Select the start time and day as well as the frequency of the task and the first date the RC30A[™] task should be run.



Select **Finish** to complete the scheduling of the RC30A[™] task.

Interstation The CarDataScheduler task (RC30A[™] task) should now appear in the list of Scheduled Tasks.



I Double click on CarDataScheduler to modify the command line arguments in the <u>Run</u>: field, using the same procedure described in Section 3.2 for editing the Target field of the RC30A[™] shortcut.

| CarDataSchedu | ler | ? | × |
|---------------------------------|--|-----|---|
| Task Schedu | ule Settings | | _ |
| 1000 C:\W 8030 | /INDOWS\Tasks\CarDataScheduler.job | | |
| <u>R</u> un: | arDiataScheduler.exe" /C1 /B38400 /FC:\test\a.txt /E |)t | |
| | <u>B</u> rowse | | |
| S <u>t</u> art in: | "C:\Program Files\HME\RC30" | | |
| <u>C</u> omments: | | | |
| | | | |
| | | | |
| | | | |
| ☑ <u>E</u> nabled (so | cheduled task runs at specified time) | | |
| | OK Cancel Ap | oly | |

Select **OK** to establish the shortcut to the RC30A[™] CarDataScheduler location you have just set up.

Raw Car Data should now be collected automatically, according to the schedule you have set up.

NOTE: Avoid scheduling data collection from a given timer faster than once every two minutes, to provide enough time for the timer to finish the process.

3.3 RUNNING RC30ATM FOR RAW CAR DATA COLLECTION

Whether you use a shortcut (by double clicking on it) or some other application such as the Task Scheduler to start RC30A[™], and provided you are not using the /Q Quiet Mode command line argument, the following screen should appear, indicating that Raw Car Data is successfully being collected from the connected System 30 Timer:

3.3.1 Successful Data Collection

The following screen should appear, indicating Raw Car Data is successfully being collected from the System 30 Timer.

| RC30A Raw Car Data Acquisition Utility | |
|--|--|
| Program Status: | |
| RECEIVING DATA (1 retry) | |
| Acquire Progress: | |
| | |
| Version 2.10 | |
| Copyright (C) 2005-2007 HM Electronics, Inc. | |

While the RC30A[™] is collecting data, this screen will show activity in the Acquire Progress bar. As data is received from the Timer, the Program Status bar will show the number of Raw Car Data records received.

3.3.2 Unsuccessful Data Collection

If the above screen does not appear, there may be a number of reasons. Be certain you have turned the System 30 Timer power ON. Be certain the following steps have been followed.

For network connection:

- Be certain EI30 has been properly installed in the System 30 Timer.
- Be certain a proper network cable is used for your network configuration (Straight-through or crossover --- See section 2.1.1).
- Be certain the network cable connectors are properly connected to the timer and the PC.
- Be certain the IP address and IP port are set properly.

For direct serial connection:

- Be certain you have a valid serial crossover cable connecting the System 30 Timer to your PC (See section 2.1.2).
- Be certain the cable connectors are properly connected to the Timer and the PC.
- Be certain you have specified the proper baud rate in the RC30A[™] command line arguments (See section 3.2).
- Be certain you have connected the cable to the serial port connector that coincides with the COM port you selected in the RC30A[™] command line arguments (See section 3.2).
- Be certain the COM port you have specified in the RC30A[™] command line arguments is a port that is not being used by another application.

If your attempt to start RC30A[™] has failed, and you are not using the /Q Quiet Mode command line argument, one of the following displays will appear. It will remain on the screen with a blinking title bar for up to 20 seconds, to inform you of the error condition.

Timeout error --- If one of the preceding steps is not followed, the next screen will appear.

| RC30A Raw Car Data Acquisition Utility | |
|--|-----|
| Program Status: | |
| System 30 timer timeout error. | |
| Acquire Progress: | _ |
| , Version 2.10 Copyright (C) 2005-2007 HM Electronics, I | nc. |

Port already open (direct serial connection) --- If you attempt to start RC30A[™] after specifying a command line argument for a COM port that is being used by some other application, the following screen will appear.

| RC30A Raw Car Data Acquisition Utility | |
|---|--------|
| Program Status: | |
| Port already open | 🖓 |
| Acquire Progress: | |
| Version 2.10 Copyright (C) 2005-2007 HM Electronics, | , Inc. |

File Open Error --- If you attempt to start RC30A[™] while you are viewing the car data file with a software such as Microsoft[®] Excel[®], the following screen will appear. Close the viewing software and restart RC30A[™] to allow it to gather data into the car data file.

| RC30A Raw Ca | r Data Acquisition Utility | |
|-------------------------|--|--------|
| Progra | im Status: | |
| File O | pen Error | |
| Acqui | re Progress: | |
| ↓ Versior Copyrig | n 2.10 pht (C) 2005-2007 HM Electronics | , Inc. |

! No data received ---- If you attempt to start RC30A[™], and it has not gathered any new data since the last time you ran it, the following screen will appear. This condition indicates there has been no activity at the timer from which RC30A[™] is gathering data.

| RC30A Raw Car Data Acquisition Utility | |
|--|----|
| Program Status: | |
| No data has been received | |
| Acquire Progress: | _ |
| ا Version 2.10 Copyright (C) 2005-2007 HM Electronics, Inc | c. |

3.3.3 Data Format of RC30A[™]

After successful collection of Raw Car Data from the System 30 Timer, you can open the data file you specified in the Command Line arguments for $RC30A^{TM}$. This file is created the first time you run $RC30A^{TM}$, and adds new data each time you run $RC30A^{TM}$. To avoid an excessively large file, archive the file by saving it to another folder or disk. After the data file has been archived, $RC30A^{TM}$ will create a new car data file to replace it.

The following tables show examples of the data format of a file containing Raw Car Data from a System 30 Timer, in Raw Text Format and imported into a Microsoft[®] Excel[®] spreadsheet. In this example, the System 30 Timer is configured for a dual lane operation, with menu boards Menu1 and Menu2, and service windows Serv1 and Serv2. Note also that there are queue times for the times between menu boards and service windows designated QMenu1 and QMenu2 for lane 1 and lane 2 respectively.

| | licros | oft E | xcel - CAR | DAT | A.R | C1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | . 🗗 🗙 |
|----|------------------|-------|---------------------|-----|------|------|-------|-------|-----|------|------------|-------|------|------|-----|-----|------------|-----|------|-----|-------|-----|-----|-------|------|------|-------|-------|-------|------|------------|-----|------------|-----|-------------|------------|-----|-----|-------------|-----|-------|------------|------------|------|----------|
| | Eile E | dit | <u>V</u> iew Insert | Fo | rmat | Ιo | ıls M | MiniC | alc | Data | 9 <u>W</u> | /indo | wĿ | telp | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Ŀ | . B × |
| | i 🖉 | 8 | 3 6 0 | HBC | 8 | 6 | a li | | n | - (| 2 | Σ, | f* | ₿↓ | 10 | 869 | % | - | 2 | * | Arial | | | | | • 1 | 0 | - 1 | в , | ΖĽ | Į | F | = | 1 | 1 34 | \$ | % | , | *. 0 | | } • | E 🛛 • | <u>ð</u> - | A | - » |
| | A51 | _ | • | = | Se | p 24 | ,03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A | | В | C D | E | FG | Н | I J | I K | L | ΜN | 0 1 | P | QR | S | ΤU | I V | W | XΥ | Z | AAA | λBA | CAD | AE AI | FAG | AH A | AJ AJ | I AKA | AL AI | VAN/ | ACAI | PAG | ARA | SAT | AU / | ۹VA | ٧AX | AY, | AZB/ | 488 | BC BI |) BE | | BF B | BIBIE |
| | | | | | | | | | | | | | ~ | | | | | | | | | | | | - | a - | | | 3 | 21 | - 2 | - | 0 F | 2 | | 3 5 | 2 | - | - 10 | 2 | a | | | _ | - |
| | | | ų R | : 9 | - 0 | Ę, | Į i | 6 G | £ _ | 0 | 臣 | L. | Shr. | Ξ | et1 | et2 | Ę | ler | i ti | Ę | ΣŞ | 2 2 | Σ | 되었 | -Att | ŧ, | 흔 | N S | Z Too | ooti | ash ash | ŝ | Vry Fee | e e | le li | rde Tde | 1de | LST | er v | 2 | e E | | ŧ | le l | |
| 1 | | Dat | ЦЦ, C | i á | Att. | 12 | d d | z z | . ₹ | £ά | 88 | 38 | Öź | 58 | õ | 8 ₹ | ₽ Ne | ē, | 5 2 | Ë | 88 | 80 | 90 | 99 | 9 | 99 | ; B | 9 8 | 38 | 88 | 38 | 8 | 88 | 8 | 3 | 38 | 8 | 98 | 38 | 8. | Cal E | | ã | б | |
| 2 | Sep 24 | 1,03 | 10:00 AM | 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 | 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 (| 0 0 |) System_ | Reset | 0 | |
| 3 | Sep 24 | 1,03 | 10:01 AM | 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 | 6 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 0 | 0 0 | 2 2 | 2 Car_Pull | In | 0 | |
| 4 | Sep 24 | 1,03 | 10:01 AM | 00 | 0 | 00 | 0 | 0 0 | 00 | 0 | 0 0 | 00 | 0 | 0 0 | 0 0 | 0 0 | | 0 | 0 0 | | 9 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 00 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 2 | 2 Car_Pull | In | 0 | |
| 5 | Sep 24 | 1,03 | 10:01 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | J 6 | 0 | 0 0 | | U | 8 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | | 0 0 | 0 | 0 | J U | 40 | 4 U | 0 1 | 0 | 0 0 | 0 | 2 2 | 2 Car_Dep | arture | 0 | |
| 7 | Sep 24 Sep 24 | 1.02 | 10:01 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | | 0 | 0 0 | 0 0 | 0 | 0 0 | | 0 0 | | 0 | 0 0 | | 4 | 0 0 | | 0 0 | | 0 | 0 0 | 0 | 0 0 | | 0 0 | | 0 | 0 0 | 12 | 0 0 | | 0 | 0 0 | | 4 4 | Car_Dep | arture | 0 | <u></u> |
| 8 | Sen 24 | 103 | 10:01 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 0 | 0 0 | | 0 0 | 1 0 | 0 | 0 0 | | 9 | 7 0 | 0 | 0 0 | 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 | 1 0 | 0 | 0 0 | 0 | 0 | 0 0 | 0 | 2 3 | Car Dep | In | 0 | |
| 9 | Sen 24 | 103 | 10:01 AM | n n | 0 | 0 0 | n | 0 0 | 0 0 | n | 0 1 | 0 0 | n | 0 0 | n n | 0 7 | 7 0 | 0 | n n | 0 | 4 | n c | n n | 0 0 | n n | n | 0 0 | n n | 0 0 | 0 | 0 0 | n n | 0 | n n | 1 | 0 0 | 1 0 | n | 0 0 | n n | 1 1 | Car Den | arture | ñ | |
| 10 | Sep 24 | 103 | 10:01 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | n | 0 0 | 0 | 0 0 | 1 7 | 0 | 0 0 | 0 | n | 9 0 | 1 0 | 0 0 | 1 0 | n | 0 0 | n n | 0 0 | 0 | 0 0 | 1 0 | 0 | 1 0 | 0 | 8 0 | 1 0 | n | 0 0 | n n | 2 2 | Car Dep | arture | 0 | |
| 11 | Sep 24 | 03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 9 | 9 0 | 0 | 0 0 | 0 | 7 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 1 | 0 0 | 2 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 2 | 2 Car Dep | arture | 0 | |
| 12 | Sep 24 | .03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 0 | 0 0 | 9 | 0 | 0 0 | 0 | 0 | 7 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 1 | 0 0 | 0 | 3 0 | 0 0 | 0 | 0 0 | 0 0 | 2 2 | Car Dep | arture | 0 | |
| 13 | Sep 24 | .03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 0 7 | 7 0 | 0 | 0 0 | 0 | 7 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 6 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 2 | Car Dep | arture | 0 | |
| 14 | Sep 24 | 1,03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 0 | 0 7 | 0 | 0 0 | 0 | 0 | 8 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 7 0 | 0 0 | 0 | 0 0 | 0 (| 2 2 | Car_Dep | arture | 0 | |
| 15 | Sep 24 | 1,03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 0 8 | 3 0 | 0 | 0 0 | 0 | 6 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 2 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 1 | Car_Dep | arture | 0 | |
| 16 | Sep 24 | 1,03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 0 | 8 (| 0 | 0 0 | 0 | 0 | 6 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 (| 0 0 | 0 0 | 0 | 0 0 | 0 | 9 0 | 0 0 | 0 | 0 0 | 0 (| 2 2 | 2 Car_Dep | arture | 0 | |
| 17 | Sep 24 | 1,03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 0 6 | 6 0 | 0 | 0 0 | 0 1 | 6 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 (| 0 0 | 0 0 | 0 | 0 0 | 4 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 1 2 | 2 Car_Dep | arture | 0 | |
| 18 | Sep 24 | 1,03 | 10:02 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 0 | 6 (| 0 | 0 0 | 0 | 0 | 6 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 (| 0 0 | 0 (| 0 | 0 0 | 0 | 8 0 | 0 0 | 0 | 0 0 | 0 (| 2 2 | 2 Car_Dep | arture | 0 | |
| 19 | Sep 24 | 1,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 6 | 6 0 | 0 | 0 0 | 0 | 5 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 (| 0 0 | 0 0 | 0 | 0 0 | 6 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 1 2 | 2 Car_Dep | arture | 0 | |
| 20 | Sep 24 | 1,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 0 | 6 (| 0 | 0 0 | 0 | 0 | 9 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 (| 0 0 | 0 0 | 0 | 0 0 | 0 | 3 0 | 0 0 | 0 | 0 0 | 0 (| 2 2 | 2 Car_Dep | arture | 0 | |
| 21 | Sep 24 | 1,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 9 | 9 0 | 0 | 0 0 | 0 | 6 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 4 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 1 | Car_Dep | arture | 0 | |
| 22 | Sep 24 | 1,03 | 10:03 AM | 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 | 7 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 0 | 0 0 | 2 2 | Car_Pull | In | 0 | |
| 23 | Sep 24 | 1,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 0 | 7 | 0 | 0 0 | 0 | 0 | 4 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 6 0 | 0 0 | 0 | 0 0 | 0 0 | 2 2 | 2 Car_Dep | arture | 0 | |
| 24 | Sep 24 | 1,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 (| 0 7 | 7 0 | 0 | 0 0 | 0 | 9 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 1 | 0 0 | 7 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 2 | 2 Car_Dep | arture | 0 | <u> </u> |
| 25 | Sep 24 | ,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 04 | 0 | 0 0 | 0 | 0 | 9 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 8 0 | 0 0 | 0 | 0 0 | 0 0 | 2 2 | 2 Car_Dep | arture | 0 | |
| 26 | Sep 24 | 1,03 | 10:03 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 0 | 0 0 | 0 0 | 0 4 | 1 0 | 0 | 0 0 | 0 | 6 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 12 | 0 0 | J U | 0 | 0 0 | 0 0 | 1 2 | 2 Car_Dep | arture | 0 | |
| 27 | Sep 24 | 1,03 | 10:04 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | U | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 9 | 9 0 | 0 | 0 0 | | 1 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | U | 0 0 | 0 | 0 0 | 0 | 0 | J U | 8 | 0 0 | J U | 0 | 0 0 | 0 | 1 2 | 2 Car_Dep | arture | 0 | |
| 28 | Sep 24 | 1,03 | 10:04 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 0 | 0 0 | 0 | 0 0 | 1 9 | 0 | 0 0 | 0 | 0 | 9 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | | 0 0 | 0 | 0 | 0 0 | 0 | 7 U | 0 0 | 0 | 0 0 | 0 | 2 4 | Car_Dep | arture | 0 | |
| 29 | Sep 24 | 103 | 10:04 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | | 0 0 | | 0 | 0 0 | | 6 | 0 0 | | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | | 0 0 | | 0 | 0 0 | 3 | 0 0 | 0 0 | 0 | 0 0 | | 1 1 | Car_Dep | anure | 0 | |
| 24 | Sep 24 | 1.02 | 10:04 AM | 0 0 | 0 | | 0 | 0 0 | 0 0 | 0 | 0 1 | 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 0 | | 2 2 | Car_Pull | _00 | 0 | |
| 22 | Sep 24 Sep 24 | 103 | 10:04 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | | 0 | 0 0 | 0 0 | 0 | 0 0 | | 0 0 | 2 0 | 0 | 0 0 | | 0 | 0 0 | | 0 0 | 0 | 0 | 0 0 | 0 | 0 0 | | 0 0 | | 0 | 0 0 | 4 | 0 0 | | 0 | 0 0 | | 4 4 | Car_Fui | orturo | 0 | |
| 33 | Sen 24 | 103 | 10:04 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 (1 6 | 0 | 0 0 | 0 | 0 | 8 0 | 1 0 | 0 0 | 1 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 1 0 | 0 | 1 0 | 0 | 5 0 | 1 0 | 0 | 0 0 | 0 | 2 2 | Car Dep | arture | 0 | |
| 34 | Sen 24 | 03 | 10:04 AM | 0 0 | 0 | 0 0 | n | 0 0 | 0 0 | 0 | 0 1 | 0 0 | n | 0 0 | n n | 0.8 | 8 0 | 0 | 0 0 | 0 | 4 | 0 0 | n n | 0 0 | n n | ñ | 0 0 | 0 | 0 0 | 0 | 0 0 | 1 0 | 0 1 | 1 0 | 3 | 0 0 | 1 0 | n | 0 0 | n n | 1 0 | Car Den | arture | ñ | |
| 35 | Sen 24 | 103 | 10:04 AM | 0 0 | 0 | 0 0 | n | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 0 | 0 0 | n n | 0 0 | 18 | 0 | 0 0 | 0 | 0 | 6 0 | n n | 0 0 | 1 0 | ñ | 0 0 | n n | 0 0 | 0 | 0 0 | n n | 0 | n n | 0 | 4 1 | 1 0 | n | 0 0 | n n | 2 3 | Car Den | arture | ñ | |
| 36 | Sep 24 | 03 | 10:04 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | n i | 0 1 | 0 0 | ñ | 0 0 | n n | 0.6 | 5 0 | 0 | n n | 0 | 4 | 0 0 | n n | 0 0 | n n | ň | 0 0 | Ū. | 0 0 | 0 | 0 0 | n n | 0 | n n | 2 | n n | 1 0 | n | 0 0 | n n | 1 1 | Car Dep | arture | ñ | |
| 37 | Sep 24 | 03 | 10:05 AM | 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 | 7 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 1 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 2 | 2 Car Pull | In | 0 | |
| 38 | Sep 24 | .03 | 10:05 AM | 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 | 5 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 1 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 2 2 | Car Pull | In | 0 | |
| 39 | Sep 24 | .03 | 10:05 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 5 | 5 0 | 0 | 0 0 | 0 | 6 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 4 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 1 | Car Dep | arture | 0 | |
| 40 | Sep 24 | 03 | 10:05 AM | 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 | 4 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 0 | 0 0 | 2 2 | 2 Car Pull | In | 0 | |
| 41 | Sep 24 | 1,03 | 10:05 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 0 4 | 1 0 | 0 | 0 0 | 0 | 4 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 2 | 0 0 | 0 0 | 0 | 0 0 | 0 (| 1 2 | Car_Dep | arture | 0 | |
| 42 | Sep 24 | 1,03 | 10:05 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 0 | 0 0 |) 4 | 0 | 0 0 | 0 | 0 | 9 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 6 0 | 0 0 | 0 | 0 0 | 0 0 | 2 2 | 2 Car_Dep | arture | 0 | |
| 43 | Sep 24 | 1,03 | 10:05 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 9 | 9 0 | 0 | 0 0 | 0 | 9 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 3 | 0 0 | 0 0 | 0 | 0 0 | 0 | 1 2 | 2 Car_Dep | arture | 0 | |
| 44 | Sep 24 | 1,03 | 10:06 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 9 9 | 0 | 0 0 | 0 | 0 | 7 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 9 (| 0 0 | 0 | 0 0 | 0 0 | 2 2 | 2 Car_Dep | arture | 0 | |
| 45 | Sep 24 | 1,03 | 10:06 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 0 | 0 0 |) 7 | 0 | 0 0 | 0 | 0 | 5 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 3 (| 0 0 | 0 | 0 0 | 0 0 | 2 2 | 2 Car_Dep | arture | 0 | |
| 46 | Sep 24 | 03 | 10:06 AM | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 | 0 (| 0 0 | 0 | 0 0 | 0 0 | 0 7 | 7 0 | 0 | 0 0 | 0 | 9 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 | 0 0 | 1 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 1 2 | Car_Dep | arture | 0 | _ |
| | | \CA | RDATA / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Re | arthr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | NUN | 1 | | |

Raw Text Format:

The Raw Text Format generated by RC30A[™] contains an individual record (row) for each Car_Departure, System_Reset, Delete_Auto_Pullout, etc. Each record contains fields with the following information:

- Date in the default form MMM DD,YY or date matching regional format (MM/DD/YY or other) --- for normal Car_Departures and Car_Pull_Ins, this is the departure date; for other record types, this date indicates the date of the occurrence of the record. See section 3.2 for alternate date formats.
- Time in the form HH:MM A/P --- for normal Car_Departures and Car_Pull_Ins, this is the departure time; for other record types, this time indicates the time of the occurrence of the record.
- Times for detector and queue events that car experiences in the drive-thru (used for normal Car_Departures and Car_Pull_Ins).
 NOTE: In the example, detector and queue event fields (columns have been deleted from the screen shown on page 24, since they are not relevant to this explanation).
 Arvl1, Arvl2, Alt1, Alt2 are left to show that other unused events contain '0' for event times.
- Lane --- Indicates which lane the car used as it moved through the drive-thru. For single lane configurations, this is always set to 1.
- Cars In Queue --- Indicates the number of cars in the queue when the record was recorded. This field provides information regarding the activity in the lane as cars and other record types are occurring.

| Event (Record Type) | Description |
|---------------------|--|
| Car Departure | A normal car has been processed through a lane. |
| Timer Reset | An employee has reset the System 30 Timer. |
| VDB Reset | An employee has reset the last active Vehicle Detector in |
| | a given lane |
| Delete_Auto_Pullout | The Timer has automatically deleted a car detected to be |
| | a pull out from the lane. |
| Delete_Auto_Discard | The Timer has automatically discarded a car detected to |
| | have passed thru the first or last detection point in a |
| | given lane faster than the minimum discard time. |
| Delete_Auto_Over | The Timer has automatically deleted a car from the lane |
| | due to the Maximum Number of Cars being exceeded. |
| Delete_Manual | An employee has manually deleted the first car in the |
| | lane. |
| Car_Pull_In | A car has pulled into the lane, avoiding entering the lane |
| | at the first detector. |
| VDB_Reset | An employee has manually reset the vehicle detectors. |
| Power_Up | The Timer has been powered up. |
| Power_Down | The Timer has been powered down. |
| New_Day | The Timer has passed through a new calendar day. |
| New_Daypart | The Timer has passed through a new daypart. |
| Independent | A vehicle has departed from an individual independent |
| | detector. |
| System_Reset | An employee has reset the Timer. |

Event --- This is the actual record type, which includes the following information.

Each record of the Raw Car Data is organized as follows:

| Detector ti column | mes s | Que | ue Event tim columns | nes | Ev and | ent Record Store ID c | I Type, olumns |
|---|---|---|---|---|---|--|--|
| Edit Yew Greet Format Iools Table Win | dow Help | 11 % • 7 7 1 | Vormal 💽 Arial | - 10 - B | 1 1 | | (字) (アーク・) |
| | .2 | | L · · · 52 · · · L · · 6 | | 1 1 1 | ω | |
| Date Time Anrival Sep 23,03 850 PM 0 Sep 23,03 850 PM 0 Sep 23,03 851 PM 0 Sep 23,03 852 PM 0 Sep 23,03 853 PM 0 <td>Alert Booth 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>OArrival OAlert 0 0 0 <</td> <td>CBooth CCashier 0 0 0</td> <td>OWindow2 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1</td> <td>Lane 0 0 2 0 2 0 2 0 2 0 2 0 2 0 0 3 0 0 3 0 0 3 0 0 3 0 3</td> <td>CarsinO Event Independent Independent Independent Car_Departure Independent</td> <td>StoreID 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> | Alert Booth 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | OArrival OAlert 0 0 0 < | CBooth CCashier 0 0 0 | OWindow2 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 | Lane 0 0 2 0 2 0 2 0 2 0 2 0 2 0 0 3 0 0 3 0 0 3 0 0 3 0 3 | CarsinO Event Independent Independent Independent Car_Departure Independent | StoreID 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

NOTE: The vertical dashed lines indicate columns omitted from this illustration.

3.3.4 Exporting RC30A[™] Data to Another Software

As stated in Section 3.2, it is possible to select either a tab or comma delimiter. This separates the fields of the records with either a tab or comma, which allows the data records to be exported to another software such as Microsoft[®] Excel[®] or Lotus[®] 123 for spreadsheets, which require one type of delimiter (separator) or the other.

APPENDIX A: CHANGING WINDOWS REGIONAL DATE FORMAT

For Windows[®] XP:

Select Start -> Settings -> Control Panel -> Regional and Language Options

| Regional and Lar | nguage Options | ? × |
|---|---|-----|
| Regional Options | : Languages Advanced formats | 1 |
| This option al dates, and tin | ifects how some programs format numbers, currencies, ne. | |
| <u>S</u> elect an iten your own forn | n to match its preferences, or click Customize to choose nats: | |
| English (Unit | ed States) 🗾 [Customize | |
| Samples | | |
| Number: | 123,456,789.00 | 1 |
| Currency: | \$123,456,789.00 | 1 |
| Time: | 3:19:44 PM | 1 |
| Short date: | 11/01/2005 | 1 |
| Long date: | Tuesday, November 01, 2005 | 1 |
| | | |
| Location | | |
| <u>T</u> o help servi weather, sele | ces provide you with local information, such as news and ct your present location: | t |
| United State | 2 | - |
| | | |
| | OK Cancel App | ly |

I Under Regional Options click on Customize

| Customize Regional Options | ? × |
|---|-------|
| Numbers Currency Time Date | |
| Calendar | |
| When a two-digit year is entered, interpret it as a year between: | |
| 1930 and 2029 🛨 | |
| | |
| | |
| | |
| Short date | _ |
| Short date sample. J170172005 | |
| | |
| Short date format: MM//dd/yyyy | • |
| Date separator: / | |
| | |
| Long date complet. Tuesday, Nevember 01, 2005 | _ |
| Long date sample. Truesday, November 01, 2005 | |
| | |
| Long date format: dddd, MMMM dd, yyyy | ㅋ |
| | |
| | |
| | sbbiλ |

- ! Under Date modify the <u>Short date format</u> as desired.
- I Click OK to save.

APPENDIX B: LOG FILE AND DEBUG FILE FORMATS

RC30A[™] uses two files to provide feedback as to what events have occurred during the process of polling System 30 Timers for car data.

Log file

When the /L command line argument is used, RC30A[™] creates a log file to track the time and date of communication activity between RC30A[™] and the System 30 Timer, including number of records obtained, failed attempts to get data, etc. This log tracks either serial or network connections.

! Debug file

When the /E command line argument is used, RC30A[™] creates a debug file in a DebugLog folder to track, in more detail, the communication activity between RC30A[™] and a given System 30 Timer. This debug file tracks either serial or network connection activity. This file has information that can be interpreted by HME Technical Support to debug network communication problems.