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I. GENERAL

The System 30 is used to measure timing events or service goals at various locations (detection points) in the drive-thru lane. It can monitor timing events at up to six detection points in either one or two-lane operations.

The optional remote display units show timing events at selected detection points. The unit can be connected to an external audio alert or strobe light which can be set to sound alert tones or flash when drive-thru customers arrive, and/or when certain service times have been reached. The system can be set up to print various timing event reports automatically or on demand, or to transfer timing data to a PC.

In the event of an electrical power outage —

such as from a lightning storm or power generator failure, if you experience problems with your HME equipment after the electricity comes on again, unplug the AC power adapters from their electrical outlets, then plug them back in.

A. Definitions of Terms

Time measurement terms:

Timing Event:	Any drive-thru event or series of events for which time is measured is a timing event. Possible System 30 timing events are described below.
Lane:	The drive-thru lane.
Queue Time:	The time from a vehicle's departure from the first active detection point until its arrival at the last active detection point.
Total Time:	The time from a vehicle's arrival at an active detection point until its departure from the same or another selected active detection point.
Event Time:	The time from a vehicle's arrival at a specific detection point until its departure from that point.
Greet Time:	The time from a vehicle's arrival at the greet detection point until the audio greeting begins.

Other terms:

Dayparts:	Up to 12 time periods (numbered 1-12) can be entered into the system to break the day into segments. Each daypart automatically ends at the beginning of the following daypart. Some periods usually represented as dayparts are: breakfast, mid-morning, lunch, mid-afternoon, dinner, evening and late-night hours.
Service Goals:	Service goals are associated with dayparts and can be set for any event in the system. These can then be tracked by entering master and individual event daypart goals.
Position:	A location at which a measurement of time is taken. Detection positions typically used with the System 30 are alert, menu board, cashier window, service window and optional waiting area.
Detection Point:	The electrical connection for a vehicle detector. Each detection point may provide the signal to one or more detection positions.
Repeat:	The time (in seconds) between repeating alert tones that can be set for any daypart goals.
Cars in Lane:	The number of cars that have arrived at the first active detection point but not yet left the last active detection point.
Raw car data:	Data automatically stored by the System 30 for each time a vehicle passes a detection point. The raw car database includes all raw car data collected over a period of time, that is used by the System 30 in compiling reports.

B. Drive-Thru Store Types

To understand the timing events measured by the System 30 at your location, find which of the following illustrations (Figure 1 or 2) most closely matches the store requirements. The diagrams account for several options for single or multiple lane installations.



The names (Booth, Arrival, Menu, etc.) Listed on the diagrams indicate which pre-programmed system names can be assigned to each of the detection points. See pages for more information about detection point names.

What's in a Name?

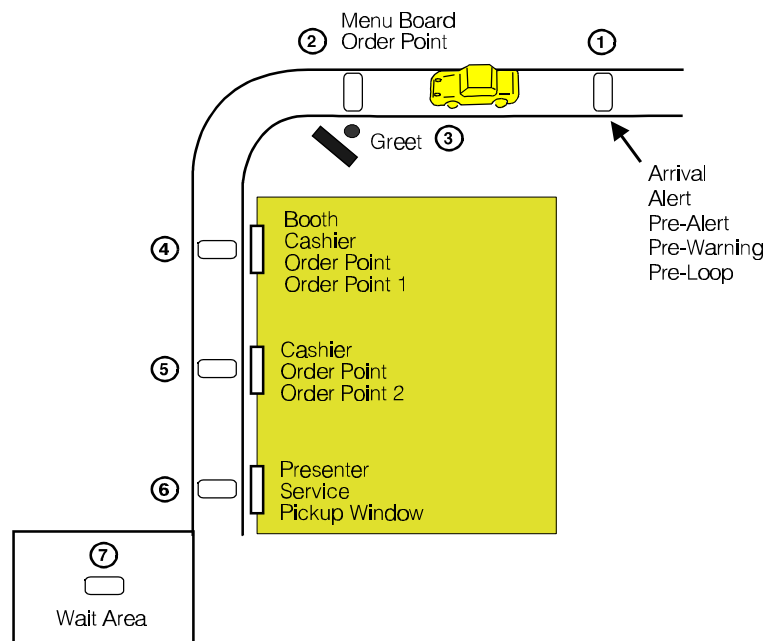


Figure 1. One-lane drive-thru layout

NOTE: In a one-lane drive-thru, you can select up to 6 of the 7 detection points shown in Figure 1. You can also assign names to each detection point, from the list on page 84.

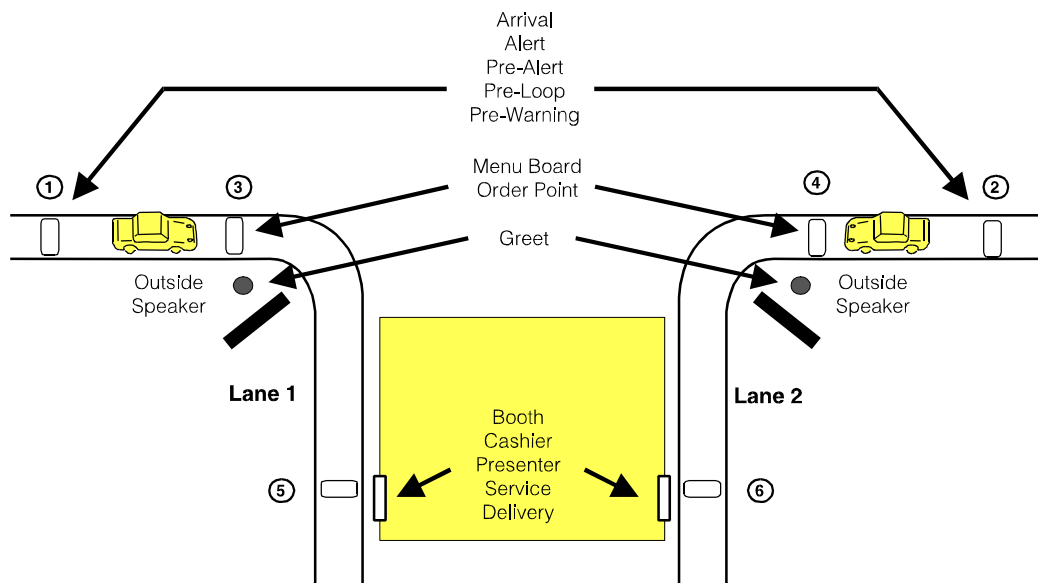


Figure 2. Two-lane drive-thru layout

NOTE: In a two-lane drive-thru, you can assign names to each detection point, from the list on page 87.

The Timer can measure individual events (time from arrival at a specific detection point until departure from that point) and transaction events such as lane time (time from leaving the first detection point until arrival at the last detection point) and Total time (time from arrival at first detection point until departure from last detection point).

The system also tracks the number of cars in the lane, which is defined as the number of cars that have left the first detection point that is ON but have not left the last detection point that is ON.

II. EQUIPMENT IDENTIFICATION AND FEATURES

A. Control Unit

The control unit is the electronic heart and brain of the System 30 timer system. You will need to become familiar with it in order to get the most value from using the system. The main features of the control unit are shown in Figures 3 and 4.

1. Main Features

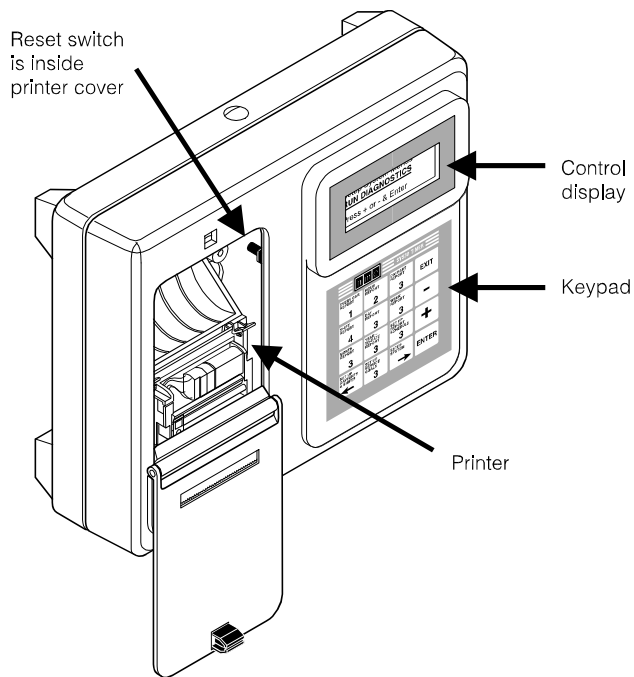


Figure 3. Main features of the System 30 control unit

- ! The **control display** shows the menus and keypad entries when the system is being set up and in daily operation.
- ! The **keypad** is used to enter setup information into the system and to request printed reports. It has 16 number and symbol keys, and provides one-touch access to many system functions and reports.
- ! The **printer** is used to print reports of timing event measurements. Inside the printer cover are instructions for loading or reordering printer paper.
- ! The **reset switch** is used to reset the system. It is mounted on the main circuit board, and can be reached by opening the printer cover.
- ! The **paper feed button** is used to load paper. The printer will advance ten lines every time the paper feed button is pressed.

2. Keypad

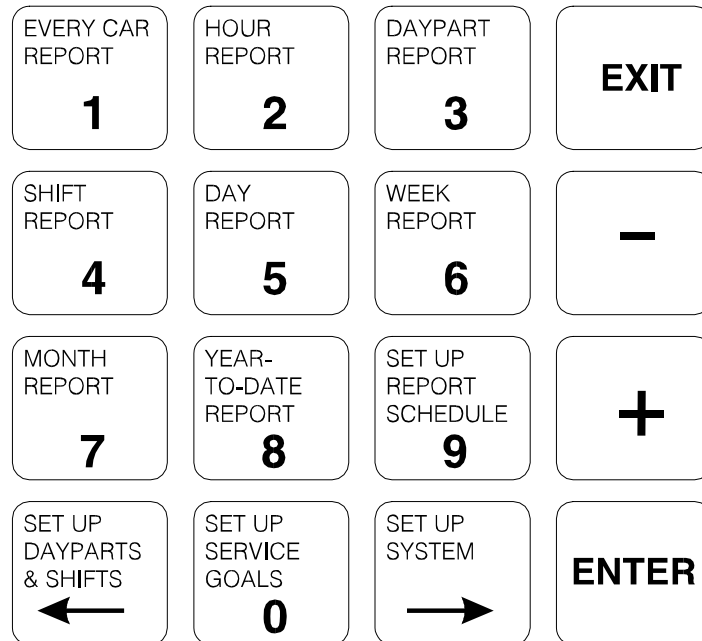


Figure 4. System 30 control unit keypad

- ! The **0-9** keys are used to set up the system and input numbers.
- ! The **EVERY CAR, HOUR, DAYPART, SHIFT, DAY, WEEK, MONTH** and **YEAR-TO-DATE** report keys are used to print these reports on demand.
- ! The **←** key is used to move *back* one field in an entry display.
- ! The **→** key is used to move *forward* one field in an entry display.
- ! The **ENTER** key is used to accept an entry in a display *field* and move to the next field.
- ! The **EXIT** key is used to accept the entries you have input, and to exit the current display. It is also used to stop the printer.
- ! The **,** key is used to move *back* in a list of selections, or sometimes to move to a previous display.
- ! The **[** key is used to move *ahead* in a list of selections, or sometimes to advance to the next display.

B. Remote Display Units

Up to four Remote Display Units can be connected to the System 30. Each unit operates with a System 30 timer to display any one of eight timing events or average goal percentages. The R31S is the standard Remote Display Unit, but you may have any of the units described below.

1. R31S Remote Display

The R31S has a 2¼ inch (57.15 mm), single-sided, multicolor display.

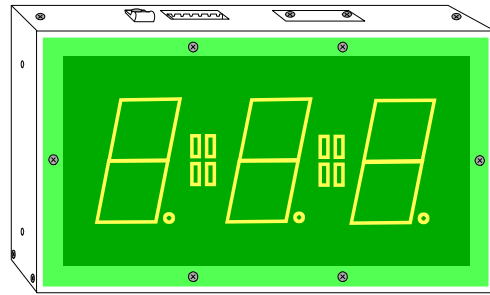


Figure 5. R31S and R30S Remote Display Unit

2. R30S Remote Display

The R30S has a 2¼ inch (57.15 mm), single-sided, red display.

3. R30 Remote Display

The R30 has a 1 inch (25.4 mm), single-sided, red display.

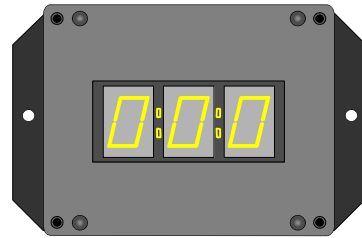


Figure 6. R30 Remote Display Unit

III. NORMAL OPERATION AND USE

If the control unit is plugged into an electrical outlet, the system will always be in operation. There is no ON/OFF switch on the control unit.

A. Typical Operation

Typical operation of the System 30 will include the following activities. More detailed explanations and instructions are given later in this manual. Refer to the Table of Contents for page references.

Typical Operation Activity	What it Does
Viewing the following types of On-Demand Reports 1 – Mini Reports 2 – Status Reports	You can view any one of nine reports with one touch of the keypad. Mini Reports give you one-touch information about system and staff activity. Status Reports give you one-touch information about system status.
Resetting vehicle detector or Deleting cars from records	Under certain traffic conditions, you will want to reset a vehicle detector or delete a car from the system records.
Modifying the System Settings	As conditions and seasons change, you may want to modify the settings that were input at the time of installation.
Setting Dayparts	Set the number of Dayparts and when they begin.
Setting Date and Time	Set the current date and time for the system.
Resetting the Defaults	Reset all system entries to the factory settings.

The following are typical display characteristics you will experience during routine operation of the System 30.

Display Characteristic	What it Means
Blinking Field	On all displays, the current field that you can input data to will blink. The number of underline spaces indicates how many characters you can input to that field.
Minutes	All schedule minutes are 00 through 59.
Seconds	All programming seconds are 00 through 59.
Timeout	All displays will return to the Standby display after 5 minutes with no activity.
Action Hints	The bottom line of each display provides keying prompts. "Press + or - & Enter" will appear for all name entries. "Press # keys & Enter" will appear for all numeric fields.
System Defaults	All displays are set to factory default settings when the system is shipped. The system can be reset to the system defaults at any time (see page 91).

B. Standby Display

The Standby display is the normal operating display. The display is different for one and two-lane locations.

The following symbols will appear on the display during routine operation of the System 30.

Symbol	What it Means
•	The detection point is active
–	The detection point is inactive
N	The detection point is OFF (not available)
G	The detection point is GREET INPUT
Blinking G	The GREET INPUT detection point is active

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

The **one-lane** Standby display is shown below:

12: 34: 12P– G – N N N
SERVICE = 01: 32
Cars in Lane = 6
Total Time = 2. 32

SERVICE = Service time for the last car through the selected event, SERVICE*
 Cars in Lane = The number of cars currently in the lane
 Total Time = Total time for the last car through

The **two-lane** Standby display is shown below:

12: 34: 12P– – – N N
SER1= 0: 00 SER2=0: 00
Lane 0 0
Total 0: 00 0: 00

SER1/SER2 = Service time for the last car through the selected event, SERVICE*
 Lane = The number of cars currently in the lane
 Total = Total time for the last car through

* In this case, SERVICE is the name of the event assigned to the last detector. This label could have other event names, if the user assigns different event to the last detector, such as window or pickup, etc.
 For two-lane configuration, the event names are abbreviated by combining the first three letters with the last letter of the event name.

C. Viewing Mini Reports

Mini Reports give you a quick view of system activity.

From the Standby display, press the +/- keys until the desired Mini Report is displayed. If you continue to press the +/- keys, you will also see the system Status reports, which are described in the next section of this manual.

Times on the Mini Reports will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

```
12:34:12P- G - N N N
Service =      01:32
Cars in Lane =    6
Total Time =    2.32
```



You don't need to enter a Report Access Code or a Manager's Code to view a Mini Report.

1. Current Hour Mini Report: (for one-lane operation only)

This report shows the average service time, average number of cars in the lane, and the total number of customers served for the current hour.

```
Current Hour:
Avg. Service=  01:32
Avg. Cars in Lane=  6
# Customers=    145
```

2. Current Daypart Mini Report: (for one-lane operation only)

This report shows the average service time, average number of cars in the lane, and the total number of customers served for the current daypart.

```
Current Daypart:
Avg. Service=  01:32
Avg. Cars in Lane=  6
# Customers=    145
```

3. **Current Shift Mini Report:** (for one-lane operation only)

This report shows the average service time, average number of cars in the lane, and the total number of customers served for the current shift.

Current Shift: Avg. Service= 01:32 Avg. Cars in Lane= 6 # Customers= 145

4. **Current Day Mini Report:** (for one-lane operation only)

This report shows the average service time, average number of cars in the lane, and the total number of customers served for the current day.

Current Day: Avg. Service= 01:32 Avg. Cars in Lane= 6 # Customers= 145

D. Viewing Status Reports

Status reports let you check the system's performance.

From the Standby display, press the +/- keys until the desired Status report is displayed.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

```
12:34:12P- G - N N N
Service = 01:32
Cars in Lane = 6
Total Time = 2.32
```



You don't need to enter a Report Access Code or a Manager's Code to view a Status Report.

- 1. System Status Report** indicates the copyright date for the system, and may flash a LOW BATTERY or REMOTE CONNECTING notice.

```
Copyright © 1999
HM Electronics Inc.
CURRENT DATE/TIME
MAR 10, 00 07:51:45A
```

```
Copyright © 1999
HM Electronics INC.
CURRENT DATE/TIME:
LOW BATTERY
```

```
Copyright © 1999
HM Electronics INC.
CURRENT DATE/TIME:
REMOTE CONNECTING
```

- 2. System Resets Report** shows how many times the system and its detectors have been reset from the time the system was setup. It also shows the number of cars deleted. Resetting the detectors and deleting the first car in the lane are done through the Drive-Thru Manager display. See page 33.

```
Manual Counts:
System Resets= 5
VDB Reset = 10
Cars Deleted = 15
```

- 3. Power-up Date and Software Version Report** shows the current date, the date the system was powered up, and the software version currently running.

Config:	JUL 05, 00
Pwr Up:	JUL 05, 00
Mk Date:	JUL 05, 00
Sys30:	Ver A. 2. 10

- 4. Raw Car Database Status** shows the size of the memory containing the raw car data, the number of records stored in the raw car database and the start and end times.

Car Database Times:
JUN 26, 00 02:38:59P
4Mb: 35000 records
JUN 31, 00 11:12:01A

E. Printing On-Demand Reports

If you want to print any of the system reports, on demand, follow the instructions in this section. If you want to print the program entries you have made for the system, follow the instructions on page 67.

Entering Your Access Codes

Access to the System 30 for making system setup changes and printing reports can be controlled by Access Codes (optional).

- ! A Report Code is needed for printing reports.
- ! A Manager's Code can be used to change the system setup or print reports.
- ! If a report has been printed in the past 5 minutes, you will not need to enter the Report Code again in order to print another report.
- ! If a report has been printed or system changes made with the Manager's Code in the past 5 minutes, you will not need to enter a code again in order to print a report.

Press the key for the report that you want to print. If a report has not been printed in the last five minutes, use the number keys to enter a Manager's or Report Access Code.

Enter Reports Access
Code: _ _ _ _ _
Press ENTER

You will have three chances to enter the correct code. After the third failed attempt, the system will display the following message and lock the keypad for 5 minutes:

Maximum Access Code
Trys Exceeded!
Key Pad Locked For 5
Minutes!

NOTES:

- ! You can override the Access Code Error by pressing the » and ° keys at the same time.
- ! All On-Demand reports will initially display the current period.
- ! If the display allows printing of multiple dates or periods, the system will print individual reports for each period of each date. The data will *not* be combined into one report.
- ! All dates must be between the power-up date and the current date.

Instructions for printing the reports can be found on the following pages:

Report

Every-Car report go to page 17
 Hour report go to page 19
 Daypart report go to page 21
 Shift report go to page 23
 Day report go to page 25
 Week report go to page 27
 Month report go to page 29
 Year-to-Date report go to page 31



Some reports require beginning and ending dates and times, and therefore are not available until the ending date or time is past.

To stop a report from printing, press the key for that report again. When you see the display for that report, STOP will be flashing. Press ENTER while STOP is flashing. The report will stop printing.

System 30 maximum vehicle data storage capability

Flash Size	Lane Configuration	Detection points (except Alert) used for each lane					
		1	2	3	4	5	6
1 Mb	One Lane	14,000	9,800	7,500	6,000	5,100	4,400
	Two Lane	14,000	9,800	7,500	—	—	—
4 Mb	One Lane	46,800	39,300	30,200	24,500	20,600	17,800
	Two Lane	46,800	39,300	30,200	—	—	—

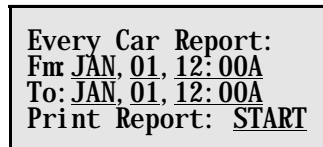
Maximum cars can be retrieved by the Every-Car, Hour, and Daypart & Shift Report.

Day, Week, Month and Year-to-Date Reports can be retrieved up to one year (365 days).

1. Every-Car Report

This report will show the date and time of the report, along with the range of dates that you select. It will show the last two detection points "ON," and the Total Time for each car.

Step 1 Press the EVERY CAR REPORT key to set up the report.



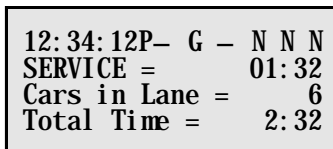
Step 2 Use the +/- and number keys to enter the dates and times, Fm (From) when To when, for the Every Car Report. **Use the +/- keys to set each time for AM or PM.** The default is the current time.

Step 3 Press **ENTER** after entering both date and time values. **START** will flash.

Step 4 When **START** is flashing, press **ENTER** to print the report.

The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.



r If you want to stop the report, press the report key again. **STOP** will be flashing. Press **ENTER** to stop printing.

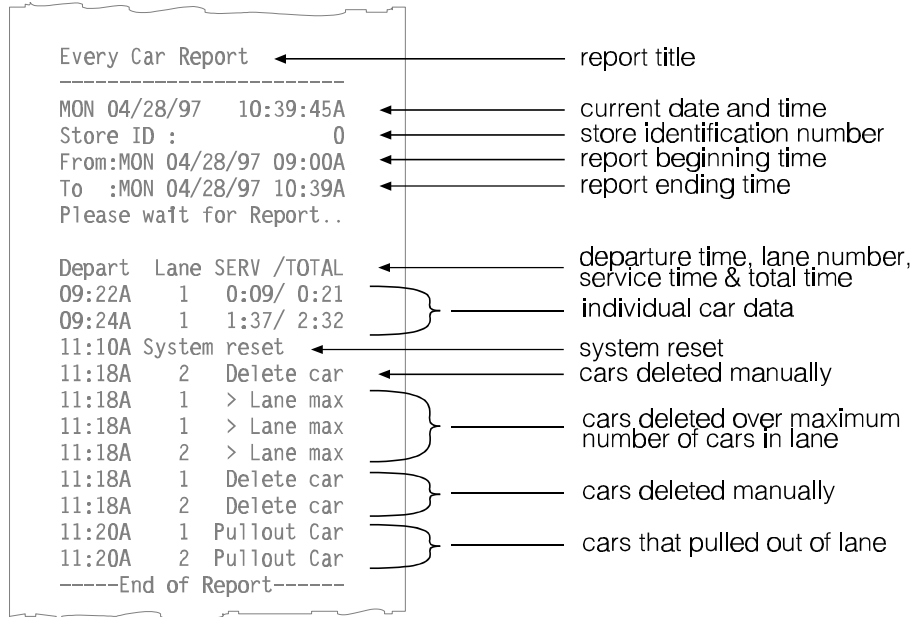
r If you want to print another report, press the key for the new report.



*Remember! You can stop printing any report by pressing the key for the report. The report display will appear, and **STOP** will be flashing. Just press **ENTER** when **STOP** is flashing and the report will stop printing!*

NOTE: This report is usually used for trouble shooting problems.

Example:

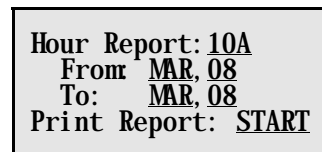


Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

2. Hour Report

This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, Cars served within each goal, and Longest times for Menu, Service and Total times. This report also shows Total Pullouts, Average Queue Time, Cars Deleted Over Maximum Cars in lane, Average Cars In the Lane, and system information (Power Fails, System Resets and VDB Resets).

Step 1 Press the HOUR REPORT key to set up the report.

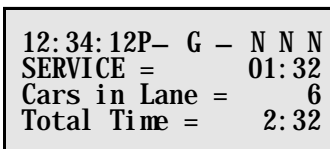


Step 2 Use the number and +/- keys to enter the start of the Hour to print and the date range.
Use the +/- keys to set each time for AM or PM.

Step 3 When START is flashing, press ENTER to print the report.

The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.



```
12:34:12P- G - N N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

r If you want to stop the report, press the report key again.
STOP will be flashing. Press ENTER to stop printing.

r If you want to print another report, press the key for the new report.

Example:

```

Hour Report
-----
MON 04/28/97 10:48:59A
Store ID : 0
From:MON 04/28/97 09:00A
To :MON 04/28/97 09:59A
Please wait for Report..

MENU 1
-----
Total Cars = 2
Total (hh:mm) = 0:01
Average Time = 0:21
Cars < 0:30 = 50% 1
Cars < 1:00 = 50% 1
Longest time:
04/28/97 09:24:52A 0:35
04/28/97 09:22:27A 0:07

GREET 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:05 = 0% 0
Cars < 0:10 = 50% 1
Cars < 0:15 = 50% 1
Cars < 0:20 = 0% 0
Cars >= 0:20 = 0% 0
Longest time:
04/28/97 09:24:52A 1:07
04/28/97 09:22:27A 0:59

SERV 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:30 = 50% 1
Cars < 2:00 = 50% 1
Longest time:
04/28/97 09:24:52A 1:37
04/28/97 09:22:27A 0:09

Total Lane 1
-----
Total Cars = 2
Average Time = 1:26
Cars < 0:30 = 50% 1
Cars < 3:30 = 50% 1
Longest time:
04/28/97 09:24:52A 2:32
04/28/97 09:22:27A 0:21

Ave Queue Time = 0:12
Ave Cars In Lane = 3
Total Pullouts = 0
Del.Over Max Cars= 0

Power Fails = 0
System Resets = 0
VDB Resets = 0
-----End of Report-----

```

report title

current date and time

store identification number

report beginning time

report ending time

first detection point in lane 1

first detection point summary

second detection point in lane 1

second detection point summary

third detection point in lane 1

third detection point summary

total lane 1 summary

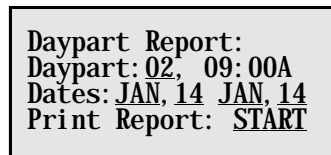
system summary

Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

3. Daypart Report

This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, Cars served within each goal, and Longest times for Menu, Service and Total times. This report also shows Total Pullouts, Average Queue Time, Cars Deleted Over Maximum Cars in lane, Average Cars In the Lane, and system information (Power Fails, System resets and VDB Resets). If the report request is for more than one day, a daypart report will be printed with data covering the specified daypart for each of the requested days.

Step 1 Press the DAYPART REPORT key to set up the report.

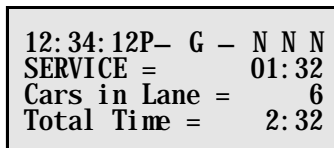


Step 2 Use the number and +/- keys to enter the Daypart number to be printed and the date range.
The system will automatically display the start time of the selected Daypart.

Step 3 When START is flashing, press **ENTER** to print the report.

The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.



r If you want to stop the report, press the report key again.
STOP will be flashing. Press **ENTER** to stop printing.

r If you want to print another report, press the key for the new report.

Example:

```

Daypart Report #1
-----
MON 04/28/97 11:04:12A
Store ID : 0
From:MON 04/28/97 06:00A
To :MON 04/28/97 11:04A
Please wait for Report..

MENU 1
-----
Total Cars = 2
Total (hh:mm) = 0:01
Average Time = 0:21
Cars < 0:30 = 50% 1
Cars < 1:00 = 50% 1
Longest time:
04/28/97 09:24:52A 0:35
04/28/97 09:22:27A 0:07

GREET 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:05 = 0% 0
Cars < 0:10 = 50% 1
Cars < 0:15 = 50% 1
Cars < 0:20 = 0% 0
Cars >= 0:20 = 0% 0
Longest time:
04/28/97 09:24:52A 1:07
04/28/97 09:22:27A 0:59

SERV 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:30 = 50% 1
Cars < 2:00 = 50% 1
Longest time:
04/28/97 09:24:52A 1:37
04/28/97 09:22:27A 0:09

Total Lane 1
-----
Total Cars = 2
Average Time = 1:26
Cars < 0:30 = 50% 1
Cars < 3:30 = 50% 1
Longest time:
04/28/97 09:24:52A 2:32
04/28/97 09:22:27A 0:21

Ave Queue Time = 0:12
Ave Cars In Lane = 3
Total Pullouts = 0
Del.Over Max Cars= 0

Power Fails = 0
System Resets = 0
VDB Resets = 0
-----End of Report-----

```

report title

current date and time

store identification number

report beginning time

report ending time

first detection point in lane 1

first detection point summary

second detection point in lane 1

second detection point summary

third detection point in lane 1

third detection point summary

total lane 1 summary

system summary

Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

4. Shift Report

This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, Cars served within each goal, and Longest times for Menu, Service and Total times. This report also shows Total Pullouts, Average Queue Time, Cars Deleted over maximum cars in lane, average Cars in the Lane, and system information (Power Fails, System resets and VDB Resets).

Step 1 Press the SHIFT REPORT key to set up the report.



```
Shift Report:
Shift: 3 09:00A
From JAN, 14 To JAN, 14
Print Report: START
```

Step 2 Use the number and +/- keys to enter the Shift to be printed and the date range. The system will automatically display the start time of the selected Shift.

Step 3 When START is flashing, press **ENTER** to print the report.

The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

```
12:34:12P- G - N
N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

r If you want to stop the report, press the report key again. STOP will be flashing. Press **ENTER** to stop printing.

r If you want to print another report, press the key for the new report.

Example:

```

Shift Report #1
-----
MON 04/28/97 11:07:12A
Store ID : 0
From:MON 04/28/97 06:00A
To :MON 04/28/97 11:07A
Please wait for Report..

MENU 1
-----
Total Cars = 2
Total (hh:mm) = 0:01
Average Time = 0:21
Cars < 0:30 = 50% 1
Cars < 1:00 = 50% 1
Longest time:
04/28/97 09:24:52A 0:35
04/28/97 09:22:27A 0:07

GREET 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:05 = 0% 0
Cars < 0:10 = 50% 1
Cars < 0:15 = 50% 1
Cars < 0:20 = 0% 0
Cars >= 0:20 = 0% 0
Longest time:
04/28/97 09:24:52A 1:07
04/28/97 09:22:27A 0:59

SERV 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:30 = 50% 1
Cars < 2:00 = 50% 1
Longest time:
04/28/97 09:24:52A 1:37
04/28/97 09:22:27A 0:09

Total Lane 1
-----
Total Cars = 2
Average Time = 1:26
Cars < 1:30 = 50% 1
Cars < 3:30 = 50% 1
Longest time:
04/28/97 09:24:52A 2:32
04/28/97 09:22:27A 0:21

Ave Queue Time = 0:12
Ave Cars In Lane = 3
Total Pullouts = 0
Del.Over Max Cars= 0

Power Fails = 0
System Resets = 0
VDB Resets = 0
-----End of Report-----

```

← report title

← current date and time

← store identification number

← report beginning time

← report ending time

← first detection point in lane 1

← first detection point summary

← second detection point in lane 1

← second detection point summary

← third detection point in lane 1

← third detection point summary

← total lane 1 summary

← system summary

Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

5. Day Report

This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, and Cars served within each goal. This report also shows Total Pullouts, Cars Deleted over maximum cars in lane, Average Queue Time, Average Cars in Lane, and system information (Power Fails, System resets and VDB Resets).

Step 1 Press the DAY REPORT key to set up the report.



```
Day Report:
From MAR, 08
To: MAR, 08
Print Report: START
```

Step 2 Use the +/- and number keys to enter the date range.

Step 3 When START is flashing, press ENTER to print the report.

The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

```
12:34:12P- G - N N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

r If you want to stop the report, press the report key again.
STOP will be flashing. Press ENTER to stop printing.

r If you want to print another report, press the key for the new report.

NOTE: Day Reports can be retrieved for up to one year (365 days) back.

Example:

```

Day Report
-----
MON 04/28/97 11:29:58A
Store ID : 0
From:MON 04/28/97 06:00A
To :MON 04/28/97 11:59P
Please wait for Report..

MENU 1
-----
Total Cars = 2
Total (hh:mm) = 0:01
Average Time = 0:21
Cars < 0:30 = 50% 1
Cars < 1:00 = 50% 1
Longest time:
04/28/97 09:24:52A 0:35
04/28/97 09:22:27A 0:07

GREET 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:05 = 0% 0
Cars < 0:10 = 50% 1
Cars < 0:15 = 50% 1
Cars < 0:20 = 0% 0
Cars >= 0:20 = 0% 0
Longest time:
04/28/97 09:24:52A 1:07
04/28/97 09:22:27A 0:59

SERV 1
-----
Total Cars = 2
Total (hh:mm) = 0:02
Average Time = 0:53
Cars < 0:30 = 50% 1
Cars < 2:00 = 50% 1
Longest time:
04/28/97 09:24:52A 1:37
04/28/97 09:22:27A 0:09

Total Lane 1
-----
Total Cars = 2
Average Time = 1:26
Cars < 1:30 = 50% 1
Cars < 3:30 = 50% 1
Longest time:
04/28/97 09:24:52A 2:32
04/28/97 09:22:27A 0:21

Ave Queue Time = 0:12
Ave Cars In Lane = 3
Total Pullouts = 0
Del.Over Max Cars= 0

Power Falls = 0
System Resets = 0
VDB Resets = 0
-----End of Report-----

```

Annotations on the right side of the report:

- report title (points to "Day Report")
- current date and time (points to "MON 04/28/97 11:29:58A")
- store identification number (points to "Store ID : 0")
- report beginning time (points to "From:MON 04/28/97 06:00A")
- report ending time (points to "To :MON 04/28/97 11:59P")
- first detection point in lane 1 (points to "MENU 1")
- first detection point summary (bracketed group for MENU 1 statistics)
- second detection point in lane 1 (points to "GREET 1")
- second detection point summary (bracketed group for GREET 1 statistics)
- third detection point in lane 1 (points to "SERV 1")
- third detection point summary (bracketed group for SERV 1 statistics)
- total lane 1 summary* (bracketed group for "Total Lane 1" statistics)
- system summary (bracketed group for "Ave Queue Time" through "VDB Resets")

*Longest time will be printed only if the day of this report is within the current raw car database.

Times on the report will be shown in either minutes:seconds or seconds only,

depending on the format selected in the Installer Setup.

6. Week Report

This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, and Cars served within each goal. This report also shows Total Pullouts, Cars Deleted Over Maximum in lane, Average Queue Time, Average Cars in Lane, and system information (Power Fails, System resets and VDB Resets).

Step 1 Press the WEEK REPORT key to set up the report.



```
Week Report: DAYOFF
Fr: MAY, 07, 00
To: MAY, 13, 00
Print Report: START
```

Step 2 Use the +/- keys to select the DAYOFF or DAY ON option, then press **ENTER**.
The DAYOFF option will provide a report for the week selected.
The DAY ON option will provide a report for the week selected, followed by daily reports for each day of the same week.

Step 3 Use the +/- keys to enter the beginning month, then press **ENTER**.
Use the number keys to enter the day and year.
The system will automatically display the end date.

Step 4 When START is flashing, press **ENTER** to print the report.
The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

```
12: 34: 12P- G - N N N
SERVICE = 01: 32
Cars in Lane = 6
Total Time = 2: 32
```

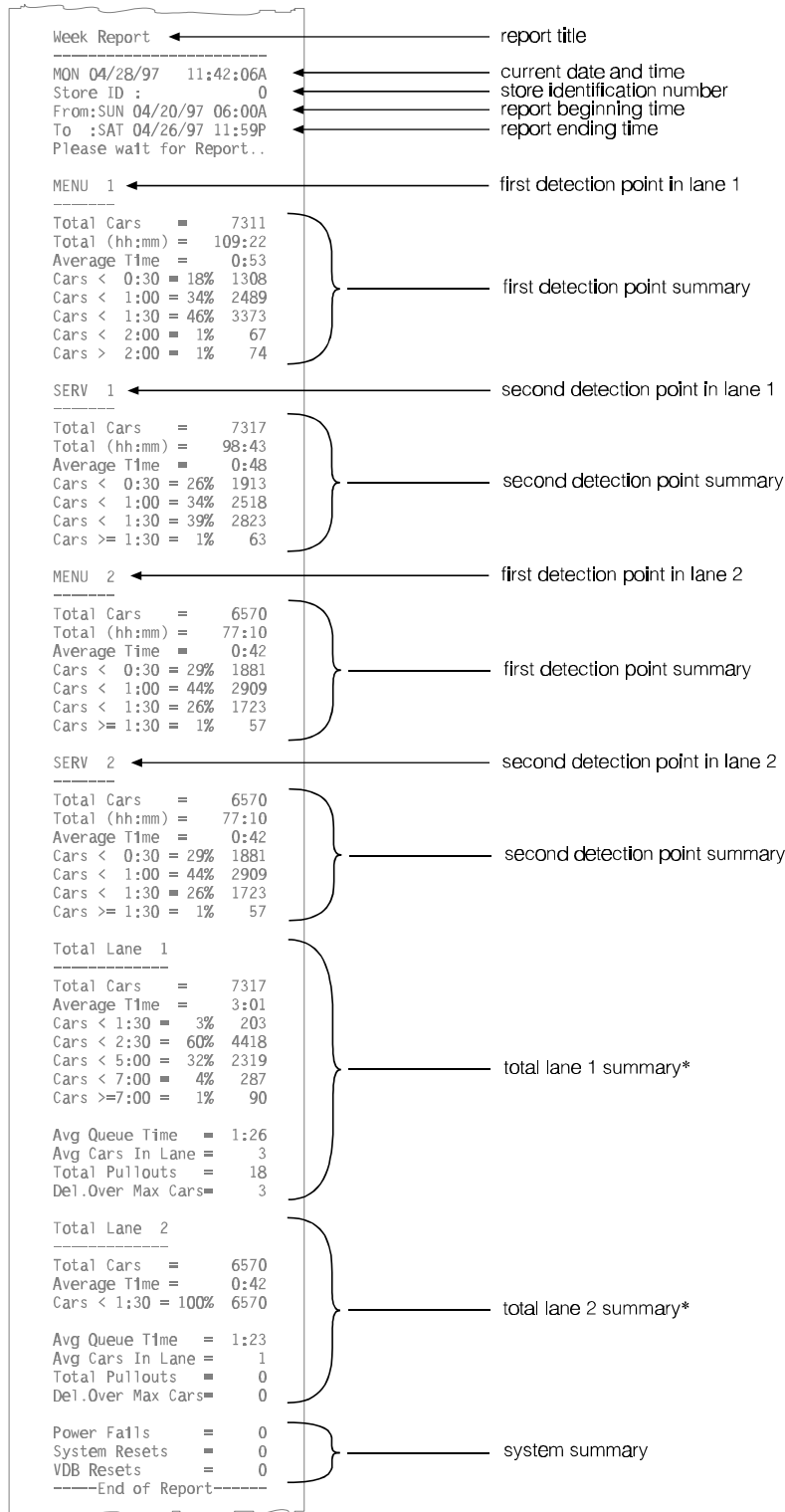
r If you want to stop the report, press the report key again.
STOP will be flashing. Press **ENTER** to stop printing.

NOTE: Because the DAYOFF or DAY ON option, described in Step 2 above, allows Week Reports and Day Reports to be printed together, if you stop Week Reports and the printer keeps printing, you must also go to the Day Report display and stop the Day Report from printing.

r If you want to print another report, press the key for the new report.

NOTE: Week Reports can be retrieved for up to one year (365 days) back.

Example:



Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

*If the raw car database contains all records for the week of this report, the report will include longest times.

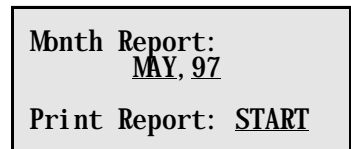
NOTE: If you selected the DAY ON option in Step 2, a separate report for each day of the week will

be printed following the Week Report. See page 26 for a sample Day Report.

7. Month Report

This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, and Cars served within each goal. This report also shows Total Pullouts, Cars Deleted Over Maximum in lane, Average Queue Time, Average Cars in Lane, and system information (Power Fails, System resets and VDB Resets).

Step 1 Press the MONTH REPORT key to set up the report.

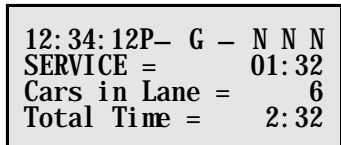


Step 2 Use the +/- and number keys to enter the month and year for the report. The date must be after the power-up date.

Step 3 When START is flashing, press **ENTER** to print the report.

The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.



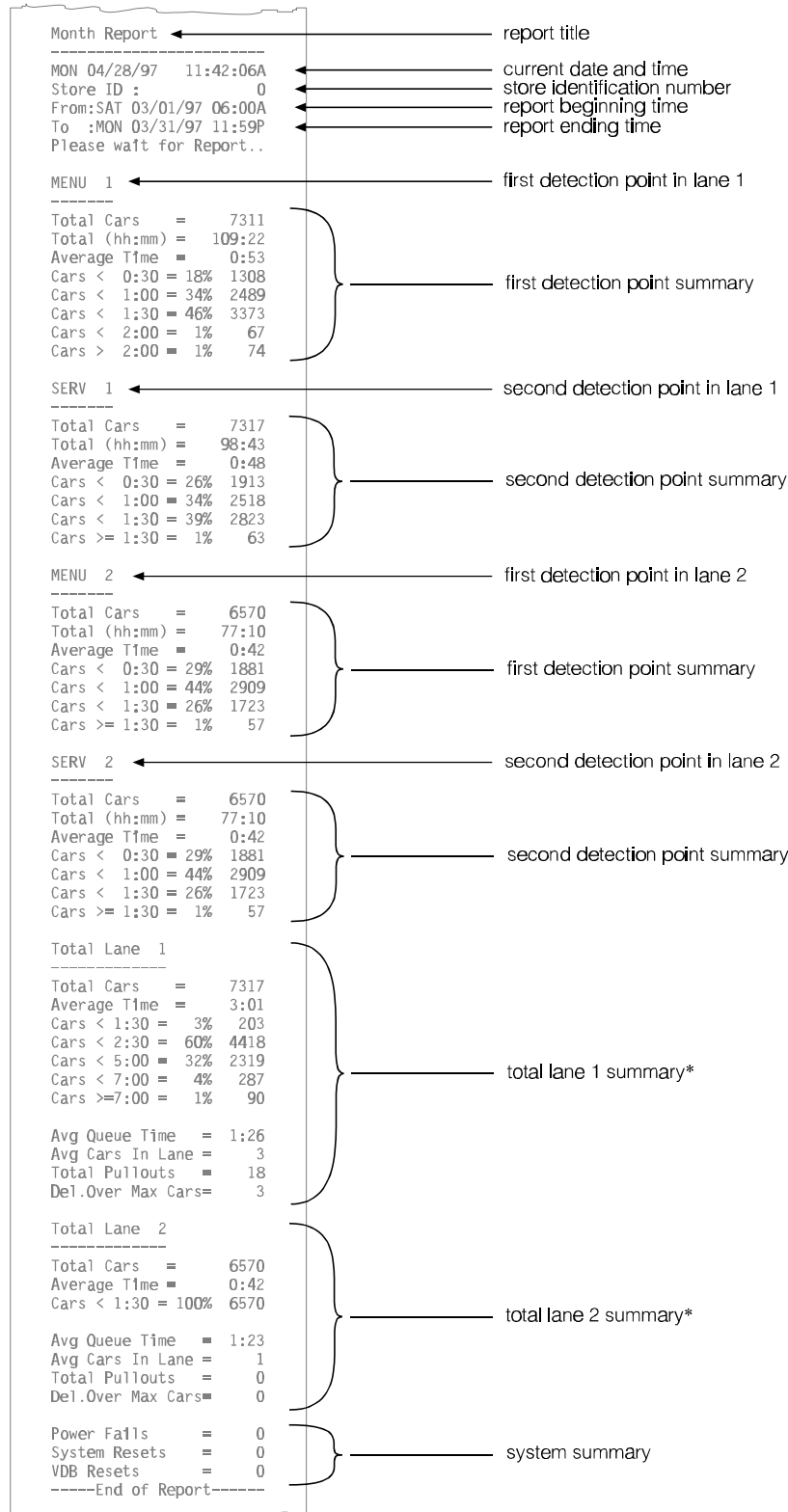
```
12:34:12P- G - N N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

r If you want to stop the report, press the report key again. STOP will be flashing. Press **ENTER** to stop printing.

r If you want to print another report, press the key for the new report.

NOTE: Month Reports can be retrieved for up to one year (365 days) back.

Example:



Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

*If the raw car database contains all records for the week of this report, the report will include longest times.

8. Year-To-Date Report

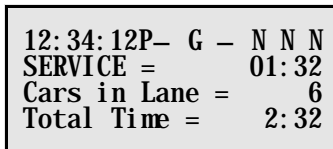
This report will show the date and time of the report, the Store ID, along with counts for Total Cars, Total Hours & Minutes, Average Time, and Cars served within each goal. This report also shows Total Pullouts, Cars Deleted Over Maximum in lane, Average Queue Time, Average Cars in Lane, and system information (Power Fails, System resets and VDB Resets).

Step 1 Press the Year-To-Date Report key to run the report.



Step 2 When START is flashing, press **ENTER** to print the report.
The Standby display will appear while the report is printing.

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.



```
12:34:12P- G - N N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

r If you want to stop the report, press the report key again.
STOP will be flashing. Press **ENTER** to stop printing.

r If you want to print another report, press the key for the new report.

NOTE: Year-To-Date Reports can be retrieved for up to one year (365 days) back.

Example:

```

Year-To-Date Report
-----
MON 04/28/97 11:42:06A
Store ID : 0
From:WED 01/01/97 06:00A
To :MON 04/28/97 11:42
Please wait for Report..A

MENU 1
-----
Total Cars = 7311
Total (hh:mm) = 109:22
Average Time = 0:53
Cars < 0:30 = 18% 1308
Cars < 1:00 = 34% 2489
Cars < 1:30 = 46% 3373
Cars > 2:00 = 1% 74

SERV 1
-----
Total Cars = 7317
Total (hh:mm) = 98:43
Average Time = 0:48
Cars < 0:30 = 26% 1913
Cars < 1:00 = 34% 2518
Cars < 1:30 = 39% 2823
Cars >= 1:30 = 1% 63

MENU 2
-----
Total Cars = 6570
Total (hh:mm) = 77:10
Average Time = 0:42
Cars < 0:30 = 29% 1881
Cars < 1:00 = 44% 2909
Cars < 1:30 = 26% 1723
Cars >= 1:30 = 1% 57

SERV 2
-----
Total Cars = 6570
Total (hh:mm) = 77:10
Average Time = 0:42
Cars < 0:30 = 29% 1881
Cars < 1:00 = 44% 2909
Cars < 1:30 = 26% 1723
Cars >= 1:30 = 1% 57

Total Lane 1
-----
Total Cars = 7317
Average Time = 3:01
Cars < 1:30 = 3% 203
Cars < 2:30 = 60% 4418
Cars < 5:00 = 32% 2319
Cars < 7:00 = 4% 287
Cars >=7:00 = 1% 90

Avg Queue Time = 1:26
Avg Cars In Lane = 3
Total Pullouts = 18
Del.Over Max Cars= 3

Total Lane 2
-----
Total Cars = 6570
Average Time = 0:42
Cars < 1:30 = 100% 6570

Avg Queue Time = 1:23
Avg Cars In Lane = 1
Total Pullouts = 0
Del.Over Max Cars= 0

Power Fails = 0
System Resets = 0
VDB Resets = 0
-----End of Report-----

```

Annotations on the right side of the report:

- report title
- current date and time
- store identification number
- report beginning time
- report ending time
- first detection point in lane 1
- first detection point summary
- second detection point in lane 1
- second detection point summary
- first detection point in lane 2
- first detection point summary
- second detection point in lane 2
- second detection point summary
- total lane 1 summary*
- total lane 2 summary*
- system summary

Times on the report will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

*If the raw car database contains all records for the week of this report, the report will include longest times.

F. Drive-Thru Manager

Certain conditions may require that the system internal detectors be reset, or that the first car in the lane be deleted.

- ! Vehicle detectors need to be reset when a car has left a location but the detector is still on.
- ! The first car in the lane should be deleted when cars in the lane are out of sequence. This can happen if the detector has a problem, if cars with trailers have gone through the lane, or if other unusual events occur.

Step 1 When you need to reset the detectors or delete the first car in the lane, begin by pressing the Set Up System key. The Set Up System Menu display will appear.



Set Up System Menu:
DRIVE-THRU MANAGER
 Press + or - & ENTER

Step 2 Press +/- until DRIVE-THRU MANAGER appears on the Set Up System Menu display.

Step 3 Press ENTER. The Drive-Thru Manager display will appear.

Drive-Thru Manager:
RESET DETECTOR
 Press + or - & ENTER

This display offers two options:

Option	Definition
RESET DETECTOR	Reset the internal vehicle detector(s).
DELETE FIRST CAR	Deletes the first (oldest) car from the current lane.

Step 4 Press +/- to choose one of these two actions. Press ENTER to view the display you have chosen.

- r If you want to reset the detectors, press **ENTER** when **RESET VEHICLE DETECTOR(s)** appears on the Drive-Thru Manger display. The system will then return to the Standby display (or mini report or status report).

Note: This should only be done when no vehicle is on the loop.

Press **ENTER** to:
**RESET VEHICLE
DETECTOR(s)**

- r If you choose **DELETE FIRST CAR**, the **DELETE FIRST CAR IN LANE** display will appear.
- r If you are operating multiple lanes, use the number keys to choose which lane to delete the car in.

Step 5 Press **ENTER** to delete the first car in the lane.






**DELETE FIRST CAR IN
LANE: 1**
Press # Keys & **ENTER**

Step 6 Press **ENTER** to perform either operation, and then return to the Standby display (or mini report or status report).

G. Modifying the System Settings

The basic System 30 setups were done at the factory or by the installer, and should not normally need to be changed. However, if it becomes necessary to reset any of the basic system settings, follow the instructions in this section.

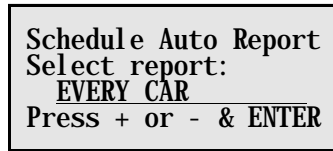
The system's setup can be changed by pressing the Setup keys on the keypad.

Key	Action	Page
	Press this key to set up the Report Schedule. You can schedule all of the system reports to print automatically.	36
	Press this key to set up the Dayparts and Shifts. You can break the day into 12 Dayparts, and track activity for each of them. You can set up the store in up to 3 shifts.	44
	Press this key to set up your Service Goals. The system can track a variety of timing events, and you can establish goals for each of them. You can also set the system to sound a tone or flash an alert when service goals times have been exceeded. This key also allows you to set up the Remote Display Event Tone, Flash sequence, Standby Mode, and Alarms.	48
	Press this key to set the current Date & Time, the Store Hours, set up the Accounting, and change the Report or Manager Access Code.	58
	Press this key to reconfigure the initial system installation parameters (the system setup). This can include detection point assignments and other basic system settings.	73

1. Schedule Your Automatic Reports

You can set the system to print any of the system reports automatically. Automatic Reports are identical to On-Demand Reports.

Step 1 Press **EXIT** to return to the Standby display. Press the SET UP REPORT SCHEDULE key. The Schedule Auto Report display will appear.



This display can be used to schedule the following reports: EVERY CAR, HOUR, DAYPART, SHIFT, DAY, WEEK, MONTH and YEAR-TO-DATE.

Report

Every-car report	go to page 37
Hour report	go to page 38
Daypart report	go to page 39
Shift report	go to page 40
Day report	go to page 41
Week report	go to page 42
Month report	go to page 43
Year-to-date report	go to page 43

Step 2 Press the +/- keys to select the report that you want to schedule. Press **ENTER** when the desired report display appears.

Schedule Every-Car Report

Step 1 Press +/- until EVERY CAR appears on the Schedule Auto Report display.

```
Schedule Auto Report
Select report,
  EVERY CAR
Press + or - & ENTER
```

Step 2 Press ENTER. The Every Car Report display will appear. The default is OFF.

```
Every Car Report: OFF
Will Continue To
Print Until Stopped
Press + or - & ENTER
```

Step 3 Press ENTER to accept this setting.



The Every Car Report is a real time, continuous report that will continue to print until it is turned off! To stop the printing, press Schedule Auto Reports, press +/- until the Every Car Report display appears, and press +/- to turn the report OFF. Then, press ENTER.

NOTE: This report is usually used for trouble shooting problems.

Schedule Hour Report

Step 1 Press +/- until HOUR appears on the Schedule Auto Report display.

```
Schedule Auto Report
Select report,
HOUR
Press + or - & ENTER
```

Step 2 Press ENTER. The Hour Report display will appear.

```
Hour Report: OFF
Ranges (From-To)
07A-09A & 11A-02P
Press + or - & ENTER
```

Step 3 Use the +/- keys to set the report ON (print at the end of each hour within the selected range) or OFF. The default is OFF. Two ranges of hours can be programmed.

Entering zero (0) for any time will automatically turn that range OFF.

Step 4 Press ENTER to accept the setting.

Schedule Daypart Report

You can select one or two ranges of Dayparts to include in the automatic report. The default is OFF.

Step 1 Press +/- until DAYPART appears on the Schedule Auto Report display.

Schedule Auto Report Select report, DAYPART Press + or - & ENTER

Step 2 Press ENTER. The Daypart Report display appears.

Daypart Report: OFF Dayparts: 01-12 & 00-00 Press # Keys & ENTER

Step 3 Press +/- to set the report On or Off.

ON	The report will print at the end of each Daypart within the selected ranges.
OFF	The Daypart report will not automatically print.

Entering zero (0) for any time will automatically turn that range OFF.

Step 4 Press ENTER or ° to move to the next field.
Use the number keys to enter the Dayparts to include in the report.
Two Daypart ranges can be entered for each report.

Step 5 Press ENTER to accept these settings.

Schedule Shift Report

You can schedule the Shift report to print for any or all of the store's shifts.

Step 1 Press +/- until SHIFT appears on the Schedule Auto Report display.

Schedule Auto Report Select report, SHIFT Press + or - & ENTER
--

Step 2 Press ENTER. The Shift Report display will appear.

Shift Report: OFF Include Shifts: 1, 2, 3 Press + or - & ENTER
--

Step 3 Press +/- to set the report On or Off. The default is OFF.

Step 4 Press ENTER or °, and then use the number keys to enter the shifts to be included in the automatic report.

ON	Report will print at end of each shift within the selected range.
OFF	Report will not automatically print.

Step 5 Press ENTER to accept these settings.

Schedule Day Report

You can schedule the Day report to print for any or all days of the week.

Step 1 Press +/- until DAY appears on the Schedule Auto Report display.

```
Schedule Auto Report
Select report,
DAY
Press + or - & ENTER
```

Step 2 Press ENTER. The Day Report display will appear.

```
Day Report: ON
Range: MON SUN
Print: 11:30 P
Press + or - & ENTER
```

Step 3 Press the +/- keys to set the report ON or OFF. The default is OFF.

Step 4 Press ENTER or °, and then press +/- to select the first day for the report to print.

Step 5 Press ENTER or °, and then press the +/- keys to select the final day for the report to print.

Step 6 Press ENTER or °, and then press the number keys to enter the time the report will print after the store closes on the specified day(s).

Step 7 Press ENTER to accept these settings, or EXIT to leave this menu.

Schedule Week Report

Step 1 Press +/- until WEEK appears on the Schedule Auto Report display.

```
Schedule Auto Report
Select report,
WEEK
Press + or - & ENTER
```

Step 2 Press ENTER. The Week Report display will appear.

```
Week Report: OFF
Print: 11:30 P
DayOption: DAYON
Press + or - & ENTER
```

Step 3 Press the +/- keys to set the report On or Off. The default is OFF.

Step 4 Press ENTER or °, and then press the number keys to set a time of day at the end of the week for the report to print.

NOTE: Day of the week is set up in the Set Up Accounting display (page 51).

Step 5 Press the +/- keys to set DAYON if you want an additional report for each day of the week selected.

Step 6 Press ENTER to accept these settings, or EXIT to leave this menu.

Schedule Month Report

Step 1 Press +/- until MONTH appears on the Schedule Auto Report display.

```
Schedule Auto Report
Select report,
  MONTH
Press + or - & ENTER
```

Step 2 Press ENTER. The Month Report display will appear.

```
Mnth Report: OFF
Print: 11:30 P
Press + or - & ENTER
```

Step 3 Press the +/- keys to set the report On or Off. The default is OFF.

Step 4 Press ENTER or °, and then press +/- to select a time of day at the end of the month for the report to print.

Step 5 Press ENTER to accept these settings, or EXIT to leave this menu.

Schedule Year-to-Date Report

Step 1 Press +/- until YEAR-TO-DATE appears on the Schedule Auto Report display.

```
Schedule Auto Report
Select report,
  YEAR-TO-DATE
Press + or - & ENTER
```

Step 2 Press ENTER. The Year-To-Date Report display will appear.

```
Year-to-Date: OFF
Will print at end of
month & year.
Press + or - & ENTER
```

Step 3 Press the +/- keys to set the report On or Off. The default is OFF.

Step 4 Press ENTER to accept this setting.

The Year-To-Date report will print at the store closing time.

2. Set Up Dayparts and Shifts

Dayparts allow the store manager to look at the different types of activity that your store probably has: busy in the early morning, slower in late morning, busy during the lunch period, slow in the afternoon, and busy again around dinner time. Since each of these periods can be several hours long, and they will overlap the clock hours (10, 11, 12, etc.), the day can be broken into pieces called Dayparts. The System 30 allows you to set up 12 Dayparts.

Since most stores have several shifts, the System 30 allows you to track activity for each shift. The System 30 allows you to have 1, 2, or 3 shifts.

Follow the instructions below to set up your Dayparts and Shifts.

Set Up Dayparts

Step 1 Press **EXIT** until the Standby display (or one of the other mini report displays) appears.

12:34:12P-	G	-	N	N	N
SERVICE =			01:	32	
Cars in Lane =				6	
Total Time =			2:	32	

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Step 2 Press the SET UP DAYPARTS & SHIFTS key. The Set Up Dayparts display will appear.



Set Up Dayparts/ Shifts Menus: <u>DAYPARTS</u> Press + or - & ENTER
--

Step 3 Press +/- to display DAYPARTS.

Step 4 Press **ENTER** to select Dayparts.

*The first Set Up Dayparts display will appear.
Use this series of displays to set the Start time for each Daypart.*



Up to 12 Dayparts can be set. You only need to enter the Start time. Each Daypart will end when the next one begins. The last Daypart End time will be the Store Closing time.

Dayparts 2-12 cannot start before the previous Daypart!

Here is some additional information about Daypart times and display entries:

1. The System 30 has up to 12 possible daypart periods numbered 1 through 12. You may use as many of the dayparts as you want. You do not have to set them all. Enter a 0 for any Daypart that is to be turned off.
2. Daypart times entered will apply to every day of the week.
3. Daypart #1 cannot start before the earliest open time entered in the Store Hours display (see page 60).
4. Gaps in Daypart times **are not permitted**.
5. The last programmed Daypart will end at the closing time entered in the Store Hours schedule (see page 60).

The first display is used to set Dayparts 1-4.

```
Set Up Dayparts(p1)
01=07:30A 02=09:00A
03=11:30A 04=01:30P
Press # Keys & ENTER
```

Step 5 Use the number keys to enter the Start times for each Daypart.
The time can be 12:00 AM through 11:59 PM.

NOTE: A Daypart can overlap midnight. Enter the correct time. The system will track the date correctly.

Step 6 Press **ENTER** or \circ to move to the next field.
Press +/- to set the time as AM or PM.

Step 7 Enter 00:00 and press **ENTER** for any Daypart that will be set to Off.
The display will show Off when **ENTER** is pressed.

Step 8 Press **ENTER** or \circ after each entry to move to the next field or display.
Fill in the Start time for each of these Dayparts (5-8).

```
Set Up Dayparts(p2)
05=04:00P 06=07:30P
07=09:00P 08=OFF
Press # Keys & ENTER
```

Step 9 Press **ENTER** or \circ after each entry to move to the next field or display.
Fill in the Start time for each of these Dayparts.

Step 10 Press **ENTER** or \circ to the next display to set up Dayparts 9-12.

```
Set Up Dayparts(p3)
09=OFF      10=OFF
11=OFF      12=OFF
Press # Key & ENTER
```

Step 11 Press **EXIT** to accept the entries and return to the Set Up Dayparts/Shifts display.

```
Set Up Dayparts/
Shifts Menus:
DAYPARTS
Press + or - & ENTER
```

Step 12 Press **EXIT** to return to the Standby display (or mini report or status report).

Set Up Shifts

Step 1 Press **EXIT** until the Standby display appears.

```
12:34:12P- G - N N N
SERVICE =      01:32
Cars in Lane =      6
Total Time =      2:32
```

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Step 2 Press the **SET UP DAYPARTS & SHIFTS** key.
The Set Up Dayparts display will appear.

```
SET UP
DAYPARTS
& SHIFTS
←
```

```
Set Up Dayparts/
Shifts Menus:
SHIFTS
Press + or - & ENTER
```

Step 3 Press **+/-** to display **SHIFTS**.

Step 4 Press **ENTER** to select Shifts.
The Set Up Shifts display will appear.

Set Up Shifts: 1. 07:30A/ 11:30A 2. 11:30A/ 01:00P 3. 04:00P/ 11:00P

Step 5 Use the number keys to enter the Start and Stop times for each shift.
Press **ENTER** or \circ to move from one field to the next.

*Up to three shifts can be set up. Enter 00:00 to turn a shift off.
Shifts can overlap, and there can be a gap between shifts.*

Step 6 Press **EXIT** until the Standby display appears.
This ends the set up of Dayparts and Shifts.



If there is a gap between shifts, no records will be reported on the Shift Report for that period.

Shift #1 cannot start before the earliest open time entered in the Store Hours display.

Shifts #2 and #3 cannot start before or at the same time as the previous Shift.

The last programmed Shift must end at or before the closing time entered in the Store Hours display (see page 60).

3. Set Up Service Goals

Step 1 Press EXIT until the Standby display appears.

12:34:12P-	G	-	N	N	N
SERVICE =			01:32		
Cars in Lane =			6		
Total Time =			2:32		

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Step 2 Press the SET UP SERVICE GOALS key. The Set Up Service Goals display will appear.

SET UP SERVICE GOALS
0

Set Up Service Goals Menus: <u>MASTER SERVICE GOALS</u> Press + or - & ENTER

Step 3 Press +/- to select MASTER SERVICE GOALS, DAYPART SERVICE GOALS, REMOTE STANDBY DISP, REMOTE STANDBY DISP, or SET ALARMS.

Set Up Service Goals Display

MASTER SERVICE GOALS go to page 49
 DAYPART SERVICE GOALS go to page 51
 REMOTE DISPLAYS go to page 52
 REMOTE STANDBY DISP go to page 58
 SET ALARMS go to page 59

Set Up Master Service Goals

The System 30 allows you to set up Master Service Goals for all Dayparts for all days of the week. You can then set up individual Daypart service goals for any Daypart, for any day of the week (see page 51).

Step 1 Press +/- to select MASTER SERVICE GOALS.

```
Set Up Service Goals
Menus:
MASTER SERVICE GOALS
Press + or - & ENTER
```

Step 2 Press ENTER. The Set Master Service Goals display appears.

```
Set Master Service
Goals for:
TOTAL
Press + or - & ENTER
```

Step 3 Press +/- to select the event for which goals need to be set, then press ENTER.

You can set goals for the events programmed in the Assign Locations display, reviewed in Appendix A.

Step 4 Use the number keys to set the time for each category of work goals.

The minimum time for Goal A is 0:01 (one second).
Most systems will use only categories A and B.
Press ENTER or ° after each entry to move to the next field.

```
Master Service Goals
TOTAL           A=1:30
B=3:30 C=5:00 D=7:00
Press # Keys & ENTER
```

Master Service Goals times will be shown and edited in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Step 5 Press **EXIT** to return to the Set Master Service Goals display.

Set Master Service
Goals for:
TOTAL
Press + or - & ENTER

ℓ If you want to set goals for another event, press +/- to select another event, then repeat steps 1 and 2 above.

ℓ If you are done, press **EXIT** to return to the Standby display.



Each Service Goal must be greater than all previous goals. B must be greater than A, C must be greater than B, etc.

When Master Service Goals are changed, the changes automatically replace all previously set Daypart Service Goals as well. Individual Daypart Service Goals can then be changed to override the newly set Master Service Goals.

Set Up Daypart Service Goals

The Master Service Goals display will set the *same* goal for *each* day of the week. You can then use the Daypart Service Goals display to set *individual* goals for any Daypart, for any day of the week.

Step 1 Press **EXIT** to return to the Set Up Service Goals Menus display.

Step 2 Press +/- to select DAYPART SERVICE GOALS, then press **ENTER**.

```
Set Up Service Goals
Menus:
DAYPART SERVICE GOALS
Press + or - & ENTER
```

Step 3 Press +/- to select the daypart for which goals need to be set, then press **ENTER**.

```
Set Daypart Service
Goals For:
TOTAL
Press + or - & ENTER
```

Step 4 Use the number keys to enter a Daypart number for which you want to set a new goal. *Service Goal times will be shown and edited in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.*

```
D/P: 1 06:00 A - OFF
Goals for day: ALL
TOTAL: A=1:30
B=3:30 C=5:00 D=7:00
```

NOTE: When this display appears, it will show the settings programmed in the Master Service Goals display.

Step 5 Press **ENTER** or \circ to move to the next field, "Goals for day."
Press +/- to select the day (or ALL for all days) to which the goals apply, then press **ENTER** to choose the selected day.

Step 6 Press **ENTER** or \circ to move through the time goal fields.

Step 7 Use the number keys to enter the time goal for each goal (A, B, C, or D). The minimum time for Goal A is 0:01 (one second). Enter 0:00 to set the Repeat interval off.

\curvearrowright If you want to set another Daypart, repeat steps 1 and 2 above.

```
Set Up Service Goals
Menus:
DAYPART SERVICE GOALS
Press + or - & ENTER
```

Set Remote Displays

The attached remote displays will be on until an event time reaches its designated goal. The remotes can be set to flash once every two seconds when service time reaches a goal.

Step 1 Press **EXIT** to return to the Set Up Service Goals Menu display.

Step 2 Press +/- to select **REMOTE DISPLAYS**, then press **ENTER**.

```
Set Up Service Goals
Menu:
REMOTE DISPLAYS
Press + or - & ENTER
```

Step 3 Press +/- to select **SETUP RMT DISPLAYS**, then press **ENTER** to edit the Remote Display number and mode.

```
Remote Display Menu:
SETUP RMT DISPLAYS
Press + or - & ENTER
```

Step 4 Press the number keys to select a Remote Number, from 1 to 16, then press **ENTER**.

*Numbers 1-8 are for model R30 and R30S/D Remote Displays,
or R31S Remote Displays in the R30mode.
Numbers 9-16 are for R31S Remote Displays.*

```
Setup Rmt Displays:
Remote Number= 1
Mode: GOAL-AVG
To edit select START
```

Step 5 Press +/- to select the Mode, then press **ENTER**.

```
Setup Rmt Displays:
Remote Number= 1
Mode: GOAL-AVG
To edit select START
```

Mode:

AVERAGE ONLY

In the Average Only mode, the Remote Display shows the AVERAGE time for the assigned event. The Remote Displays behave identically to the GOAL-AVG mode while the remote is in the Standby mode.

GOAL-AVG/GOAL% (R31 Remote Display only)

In the Goal-Average – Goal Percent Mode, the Remote Display shows the event times similar to the Goal-Average Mode. Unlike the Goal-Average Mode, this mode enables Remote Displays to provide additional information regarding the percentage of vehicles under and over the service goal for a given day or daypart.

CARS IN LANE

In the Cars In Lane mode the Remote Displays show the current number of cars in the specified lane. The Cars In Lane value is shown in the Over Goal color if the number of cars in lane is over a specified goal, or in the Under Goal color if the number of cars in lane is under the specified goal (colors are applicable ONLY to R31 remote displays). In addition, the Remote Display can be programmed to sound a beep based on the “Beep” goal.

GOAL-AVG

In the Goal-Average Mode, the Remote Display shows the event times as vehicles pass through the drive-thru lane. Event times occurring under or over a selected goal are distinguished by display cues such as solid or flashing (or in the case of R31S Remote Displays, in colors). In addition to display cues, alert tones can be played through the Remote Displays as critical event times occur. Finally, in the Goal-Average Mode, the Remote Displays can be programmed to display average event times for a day/daypart after the event times have been displayed for a fixed time without new event.

GOAL PERCENT ONLY (R31 Remote Display only)

In Goal Percent Only mode the Remote Display shows the current percentage of cars with a service goal below a specified goal. The Remote Displays can change color and sound alarm based on the specified Color Percent and Beep Percent values. Applies to R31 Remote Displays *ONLY*.

DISABLED

The Remote Display is completely disabled. The display is blank, with a single “blinking” dot.

Start:

Press the **ENTER** key to select START, to begin editing settings for the selected Remote Display number.

Editing Remote Displays in Goal-Average Mode:

The two displays for editing Remote Display settings for Goal-Average Mode are as follows:

```
Rem 02: Goal_Avg p1
EVENT Flash at: A
Tone at: A Beeps=1
Rpt= 0 Arrival: OFF
```

```
Rem 02: Goal_Avg p2
Change Color at: OFF
Under-Goal= RED
Over-Goal= GREEN
```

Rem refers to the number of the Remote Display previously selected.

EVENT selects one of the events defined in the ASSIGN LOCATIONS MENU, including menu, service total, etc. The remote display will display the event time for this entry.

Flash at: selects the goal at which the display will start flashing.

Tone: selects the goal at which the remote display will start toning.

Beeps: selects the number of tones (1, 2, 3 or 4) to be sounded when the goal is reached.

Rpt: selects the interval for tones to repeat after the last goal.

Arrival: selects sound ON or OFF when a car arrives.

Change Color at: selects the goal at which the display will change colors.
(Only applicable for R31 dual-color remote displays)

Under-Goal: selects the under-goal color.
(Only applicable for R31 dual-color remote displays)

Over-Goal: selects the over-goal color.
(Only applicable for R31 dual-color remote displays)

Editing Remote Displays for Goal-Average – Goal Percent Mode:

(R31 dual-color remote displays)

The four displays for editing Remote Display settings for Goal-Average – Goal Percent Mode are as follows:

```
Rem 09: Goal - Goal% p1
EVENT Flash Goal at: A
Tone Goal at: A Beeps=1
Rpt=_0 Arrival: OFF
```

```
Rem 09: Goal - Goal% p2
Change Color at: OFF
Under-Goal= RED
Over-Goal= GREEN
```

```
Rem 09: Goal - Goal% p3
Toggle=OFF / Time=5
%EVENT %Goal= A
Disp GREEN if %<80
```

```
Rem 09: Goal - Goal% p4
Disp RED if over %
Standby Disp Time=00
Press + or - & ENTER
```

Rem refers to the number of the Remote Display previously set.

EVENT selects one of the events defined in the ASSIGN LOCATIONS MENU, including menu, service total, etc. The remote display will display the event time for this entry.

Flash Goal: selects the goal at which the display will start flashing.

Tone Goal: selects the goal at which the remote display will start toning.

Beeps: selects the number of tones (1 through 7) to be sounded when the goal is reached.

Rpt: selects the interval for tones to repeat after the last goal.

Arrival: selects sound ON or OFF when a car arrives.

Change Color Goal: selects the goal at which the display will change colors.

Under-Goal: selects the under-goal color.

Over-Goal: selects the over-goal color.

Toggle: selects whether the display will toggle or not (between average event time and percentage of cars under goal) after the event is finished timing.

Toggle Time: selects the amount of time in seconds that the display toggles.

%EVENT: selects one of the events defined in the ASSIGN LOCATIONS MENU, including menu, service total, etc. The remote display will compute percentage of cars over/under goal for this event.

%Goal: selects goal for percentage of cars over/under goal.

Disp color if under %__: selects color to be displayed for percentage of cars under/over goal that is under selected % goal.

Disp color if over %: selects color to be displayed for percentage of cars under/over goal that is over selected % goal.

Standby Display Time: selects the number of seconds (00 to 59) to transpire from the end of the chosen Remote Display event, until the Remote Standby Mode average time is displayed .

Editing Remote Displays for Cars in Lane Mode:

The two displays for editing Remote Display settings for Cars In Lane only mode are as follows:

Rem XX: Cars/Lane p1 Tone Max= <u>10</u> Rpt= <u>00</u> Beeps= <u>1</u> Lane= <u>1</u> Flash Max Cars = <u>5</u>

Rem XX: Cars/Lane p2 Color Max Cars = <u>15</u> Under Max = <u>GREEN</u> Over Max = <u>RED</u>

Rem refers to the number of the Remote Display previously set.

Tone Max selects the number of cars at which the Remote Display will start toning.

Rpt selects the interval for tones to repeat after the last goal.

Beeps selects the number of tones (1 through 7) to be sounded when the goal is reached.

Lane selects the lane for which the number of cars in lane will be monitored.

Flash Max Cars selects the number of cars at which the Remote Display will start flashing.

Color Max Cars selects the number of cars at which the Remote Display will change colors. (R31 dual-color remote displays)

Under Max selects the under goal color. (R31 dual-color remote displays)

Over Max selects the over goal color. (R31 dual-color remote displays)

Editing Remote Displays for Average Only Mode:

The display for editing Remote Display settings for Average Only Mode is as follows:

Rem XX: Avg. Only Mde <u>EVENT</u> Goal : <u>OFF</u> Under Goal: <u>RED</u> Over Goal: <u>GREEN</u>
--

Rem refers to the number of the Remote Display previously set.

EVENT selects one of the events defined in the ASSIGN LOCATIONS MENU, including menu, service total, etc. The remote display will display the event time for this entry.

Goal selects the goal at which the Remote Display will change colors.

Under Max selects the under goal color. (R31 dual-color remote displays)

Over Max selects the over goal color. (R31 dual-color remote displays)

Editing Remote Displays for Goal Percent Only Mode:

(R31 dual-color remote displays)

The two displays for editing Remote Display settings for Goal Percent Only mode are as follows:

```
Rem XX: Goal% Only p1
% EVENT      %Goal= A
Beeps= 7      Rpt= 59
Tone if %> 100
```

```
Rem XX: Goal% Only p2
Disp GREEN if %<100
Desp RED if over %
Press + or - & Enter
```

Rem refers to the number of the Remote Display previously set.

EVENT selects one of the events defined in the ASSIGN LOCATIONS MENU, including menu, service total, etc. The remote display will display the event time for this entry.

Tone Max selects the number of cars at which the Remote Display will start toning.

Rpt selects the interval for tones to repeat.

Beeps selects the number of tones (1 through 7) to be sounded when the goal is reached.

%Goal selects the goal for percentage of cars over/under goal.

Disp color if <%_ selects the color to be displayed for percentage of cars under the selected % goal.

Disp color if over %_ selects the color to be displayed for percentage of cars over the selected % goal.

Editing Remote Standby Display:

```
Set Up Service Goals
Menus:
REMOTE STANDBY DISP
Press + or - & ENTER
```

- Step 7** Press **EXIT** to return to the Set Up Service Goals Menu display.
Press +/- to select **REMOTE STANDBY DISP**.

```
Remote Standby Mde:
Display Average Time
for: DAYPART
Press + or - & ENTER
```

- Step 8** Select either **DAY** or **DAYPART** for Period over which average event time is displayed.

Remote Display Standby Mode

You can determine which event time should be shown on the remote displays when no other events or over-target times are being displayed.

Step 1 Press EXIT to return to the Set Up Service Goals Menus display.

Step 2 Press +/- to select REMOTE STANDBY DISP.

```
Set Up Service Goals  
Menus:  
REMOTE STANDBY DISP  
Press + or - & ENTER
```

Step 3 Press ENTER. The Remote Standby Mode display will appear.

```
Remote Standby Mode:  
Display Average Time  
for: DAYPART  
Press + or - & ENTER
```

Step 4 Press +/- to select Daypart, Day or Zeroes (None). Daypart is the default.



When there is no drive-thru activity for 10 seconds, the remote display will show the average time for the selected display.

Set Alarm

The alarm is either a strobe or buzzer that is connected to the System 30 control unit.

Step 1 Press EXIT to return to the Set Up Service Goals Menus display.

Step 2 Press +/- to select SET ALARMS.

```
Set Up Service Goals
Menus:
SET ALARMS
Press + or - & ENTER
```

Step 3 Press +/- to set the alarm mode to:

CARS IN LANE MODE: The alarm is activated based on the number of cars in lane.

```
Set Alarm Mode:
CARS IN LANE MODE
Press + or - & ENTER
```

EVENT TIME MODE: The alarm is activated based on the time of the specified event. This mode is the same as software version 1.04 to 2.02 alarm in the ON mode.

```
Set Alarm Mode:
EVENT TIME MODE
Press + or - & ENTER
```

DISABLED MODE: The alarm is off.

```
Set Alarm Mode:
DISABLED MODE
Press + or - & ENTER
```

Step 4 Select the Alarm mode and press ENTER.

Editing Alarm Settings for Event Time Mode:

Alarm <u>UNDER</u> Goal Event: <u>SERVICE</u> Goal: <u>A</u> Duration: <u>1</u> / Rpt: <u>00</u> Press + or - & ENTER
--

Alarm ___ **Goal** selects whether the alarm will be activated on the transition from Under to Over, or from Over to Under Goal.

Event selects one of the events defined in the ASSIGN LOCATIONS MENU, including menu, service total, etc.

Goal selects the goal at which the alarm is activated.

Duration selects the number of seconds to activate the alarm.

Rpt selects the interval for alarm activation to repeat.

Editing alarm settings for Cars In Lane Mode:

Alarm <u>UNDER</u> Goal Max Cars= <u>99</u> Lane= <u>1</u> Duration: <u>1</u> / Rpt: <u>00</u> Press + or - & ENTER
--

Max Cars selects the number of cars at which the alarm will be activated.

Lane selects which lane will be monitored.

Duration selects the number of seconds to activate the alarm.

Rpt selects the interval for alarm activation to repeat.

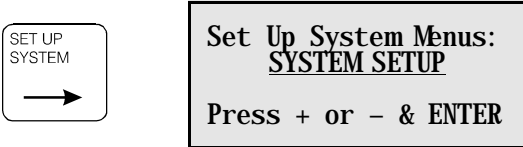
4. Set Up the System

These Setup options allow you to set the current date and time, enter your store hours, set up accounting periods, and change the Report and Manager access codes.

Setup

- Set the Date and Time go to page 62
- Store Hours go to page 63
- Set Up Accounting go to page 64
- Change the Manager Access Code go to page 65
- Change the Reports Access Code go to page 66
- Print Programming go to page 67

Step 1 Press the SET UP SYSTEM key.
The Set Up System Menu display will appear.

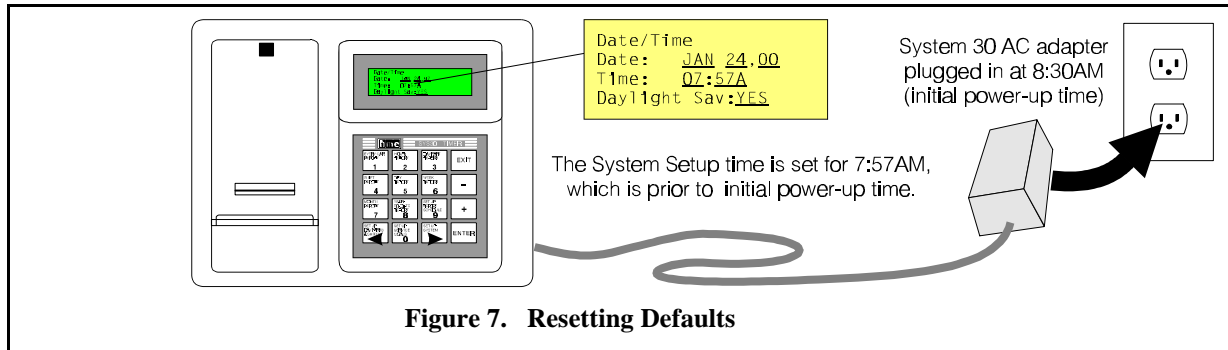


Step 2 Press + or - until the display shows SYSTEM SETUP.

Step 3 Press **ENTER** to accept this option, which allows setup of the following functions:

Option	Function
SET DATE & TIME	Set the current date and time, and Daylight Savings Time adjustment.
STORE HOURS	Set the open hours of the store.
SET UP ACCOUNTING	Set the system for accounting week, fiscal year, and Store ID.
CHANGE ACCESS CODES	Change the Manager's and Report access codes.

Set the Date and Time



IMPORTANT: If the System Setup time is set to a time prior to the first time the System 30 control unit was plugged in, as shown in Figure 6, data will not be gathered until you reset to factory defaults as instructed under “Resetting Defaults” in Appendix A, page 88.

Step 1 Press the + or – keys to move through the System Setup options until SET DATE & TIME appears.

```
System Setup:  
SET DATE & TIME  
Press + or - & ENTER
```

Step 2 Press ENTER. The Date/Time display will appear.

```
Date/Time  
Date: JAN 24, 00  
Time: 07:57A  
Daylight Sav: YES
```

Step 3 Press + or – until the correct month is displayed.
Press ENTER or ° to move to the Date field.

Step 4 Press the number keys to enter the correct day of the month and the correct year. Press ENTER.

Step 5 Press the number keys to enter the correct time. Press ENTER.

Step 6 Press the + and – keys to select A (AM) or P (PM). Press ENTER.

Step 7 Press the + and – keys to select automatic adjust for daylight saving time (YES) or no automatic adjustment (NO).

Step 8 Press ENTER. The system will accept the changes and return to the System Setup display.

Step 9 Press ENTER again. The system will return to the Set Up System Menus display.

```
Set Up System Menus:  
DRIVE-THRU MANAGER  
Press + or - & ENTER
```

Store Hours

Step 1 Press +/- until SYSTEM SETUP appears on the display.

```
Set Up System Menus:
SYSTEM SETUP
Press + or - & ENTER
```

Step 2 Press ENTER. The System Setup display will appear.

Step 3 Press +/- until STORE HOURS appears on the selection line.

```
System Setup:
STORE HOURS
Press + or - & ENTER
```

Step 4 Press ENTER to display the Store Hours display.

Step 5 Press +/- to select one day of the week, or all weekdays.

Step 6 Use the number keys to enter the store hours for the select days.

Step 7 Press +/- to set the time as AM or PM.

```
Store Hours:
For Day: ALL
06:00A-11:30P
Press + or - & ENTER
```

Set Up Accounting

Step 1 Press +/- until SET UP ACCOUNTING appears in the System Setup display.

System Setup: SET UP ACCOUNTING Press + or - & ENTER
--

Step 2 Press ENTER. The Set Up Accounting display appears.

Set Up Accounting: Begin: Week MDN Fiscal Yr JAN, 01 StoreID#: 12345678
--

Option	Definition
Begin Week	Enter the day of the week to begin accounting.
Fiscal Year	Enter the date of the customer's fiscal year.
Store ID	Enter the ID number of this location, up to 8 digits.

Step 3 Press +/- to enter the day of the week to begin accounting.

Step 4 Press ENTER or ° and then press +/- to enter the fiscal year start month.

Step 5 Press ENTER or ° and then use the number keys to enter the fiscal year start date and Store ID.

Step 6 Press ENTER to accept these entries and return to the System Setup display.

Changing the Manager Access Code

The Manager's Access code is used to prevent unauthorized access to the System data. The Manager's code allows reports to be printed on demand, and also provides access to system setups.

Step 1 Press +/- to display CHANGE ACCESS CODES.

```
System Setup:
CHANGE ACCESS CODES
Press + or - & ENTER
```

Step 2 Press ENTER.

Step 3 Press +/- to select MANAGER. Press ENTER.

```
To Select Access
Code To Be Changed:
MANAGER
Press + or - & ENTER
```

Step 4 Use the number keys to enter the new code.
The new code must be entered twice before it will be accepted.

```
Change MANAGER Code:
Enter New code: ____
Retype New code: ____
Press # keys & ENTER
```

NOTE: You will have three chances to enter the correct code. After a third failed attempt, the system will go back to the Standby display. The keypad will not lock up.

```
12:34:12P- G - N N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Changing the Reports Access Code

NOTE: In order to activate Report Access control, the Manager Access Code must first be programmed.

The Report Access code is used to prevent unauthorized access to the System data. The Report code allows reports to be printed on demand, but will not provide access to system setups.

The Store Manager can change the access code for the Reports.

Step 1 Press +/- to display CHANGE ACCESS CODES.

```
System Setup:
CHANGE ACCESS CODES
Press + or - & ENTER
```

Step 2 Press ENTER. Press +/- to select REPORTS code. Press ENTER.

```
To Select Access
Code To Be Changed:
REPORTS
Press + or - & ENTER
```

Step 3 Use the number keys to enter the new code.
The new code must be entered twice before it will be accepted.

```
Change REPORTS Code
Enter New code: ____
Retype New code: ____
Press # keys & ENTER
```



You will have three chances to enter the correct code. After a third failed attempt, the system will switch to the Standby display. The keypad will not lock up.

```
12:34:12P- G - N N N
SERVICE = 01:32
Cars in Lane = 6
Total Time = 2:32
```

Print Programming

It is a good idea to print all of the program entries that you have made. Then, if there is a system problem, you will be able to quickly reenter the settings.

Step 1 Press +/- until PRINT PROGRAMMING appears in the display.

```
Setup System Menus:
PRINT PROGRAMMING
Press + or - & ENTER
```

Step 2 Press ENTER. The Print Programming options will display.

```
Print Programming:
Print: SYSTEM
Setup Listing.
Press + or - & ENTER
```

You can print Setup listings for INSTALLER, SYSTEM, DAYPART & SHIFTS, SERVICE GOALS, REPORT SCHEDULE or ALL.

Step 3 Press +/- to select the listings to print.

Step 4 When START is flashing, press ENTER to print the selected setup listing.

Step 5 Press EXIT to abort the Printing and return to the Setup System Menus display.

```
Setup System Menus
PRINT PROGRAMMING
Press + or - & ENTER
```

IV. IN CASE OF TROUBLE

A. Special Problems

If any problem with the System 30 cannot be corrected using the following troubleshooting instructions, call HME at 1-800-848-4468 for help.

Problem 1 — Incorrect display data

When the system is first plugged in, the following data should appear on the control unit display:

STORE IS CLOSED! (Press + or - to view other screens)	<i>or</i>	12:34:12P- G - N N N SERVICE = 01:32 Cars in Lane = 6 Total Time = 2:32
---	-----------	--

Any remote display unit should initially display its own firmware version, and then display data which is determined by REMOTE DISPLAYS programming. If any remote display does not do so, check for loose wiring connections.

NOTE: If the store is closed, or if a remote display is program-disabled, only one flashing decimal point will appear on that remote unit.

Problem 2 — Processor hangup

If the time (updated every second) on the displays does not change, and flashing decimals appear on the remote displays, press the reset switch. See Figure 4 on page 5 for location of the Reset switch inside the printer cover of the control unit.

Problem 3 — Cars not being detected

If cars are driving into the drive-thru lane, and no • appears on the System 30 displays, press the reset switch. If no • appears, check the operation of the vehicle detector.

Problem 4 — Printer malfunction

If the printer malfunctions, check for loose wiring connections. Press the PAPER FEED button to cycle the paper (see Figure 7).

CAUTION: *Unplug the AC adapter or disconnect J2 before removing the ribbon cable from the printer circuit board.*

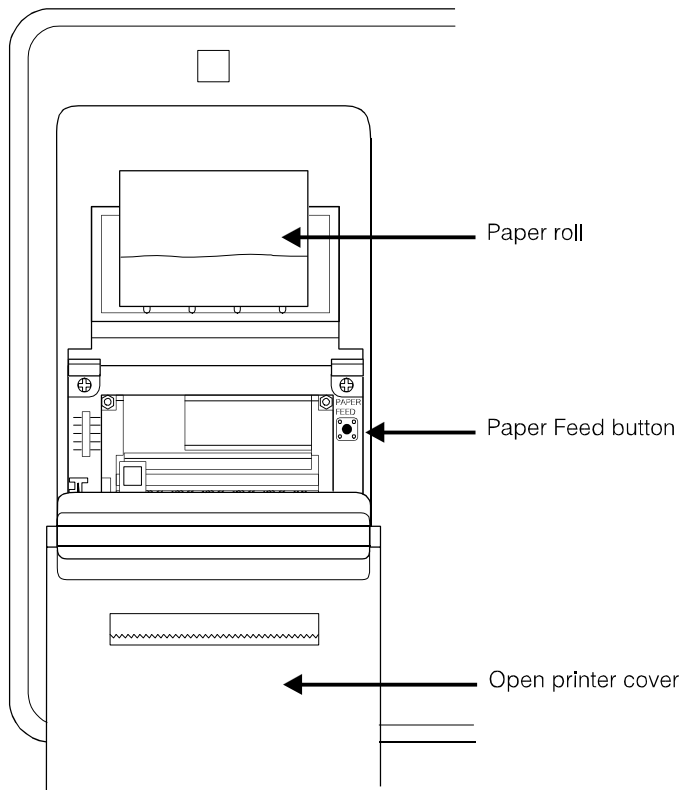


Figure 8. System 30 PAPER FEED button

Problem 5 — Low Battery

Copyright © 1999
HM Electronics INC.
CURRENT DATE/TIME:
LOW BATTERY

If the system loses its memory, the LOW BATTERY display will appear. The Real-Time Clock Module on the main circuit board should be replaced. If this happens, change the Real-Time Clock as follows.

Real-Time Clock Module Replacement

WARNING: You must unplug the System 30 AC adapter from the electrical outlet before replacing the Real-Time Clock Module.

CAUTION: Handle the Real-Time Clock Module with care. Do not get grease or body oil on its contacts.

! Open the front cover of the control unit.

! Locate the Real-Time Clock Module in the center of the control unit circuit board.

! Very carefully, pull the defective Real-Time Clock Module off the board.

! Carefully insert the new Real-Time Clock Module into the chip socket. Make sure that the notch is on the left, and the dot is at the lower left as you place the chip in the board socket.

! Close the control unit.

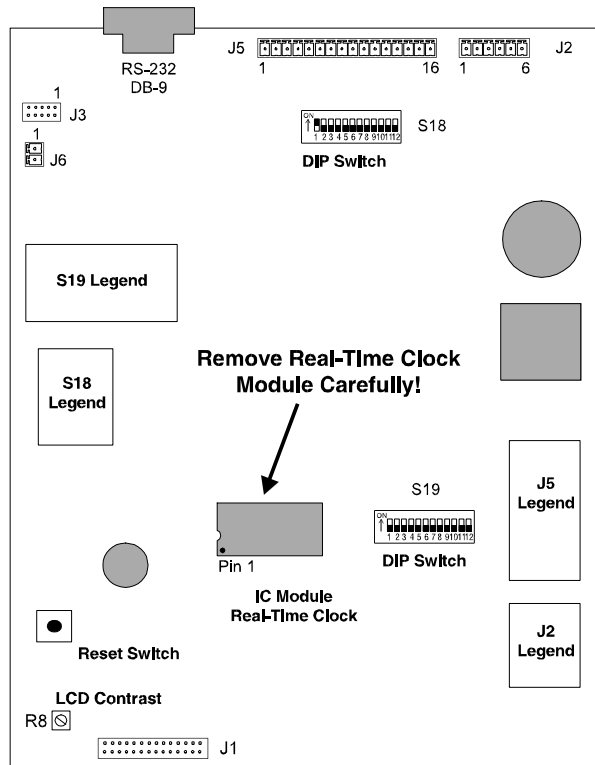


Figure 9. System 30 Real-Time Clock Module on Control Unit circuit board

B. Restarting the System after the Real-Time Clock Module has been Replaced

If the Real-Time Clock Module has been replaced, the LOW BATTERY display will disappear after the power has been restored.

NOTE: If the system has been without power for more than 2 days with a LOW BATTERY display, all system settings will be lost. Always keep a full printout of all system settings.

Follow the instructions on page 62 to set the date and time. Then, print out a full set of system settings to see if the system has lost its memory. If the data is lost, the System Setups will need to be re-input.

C. Diagnostic Tests

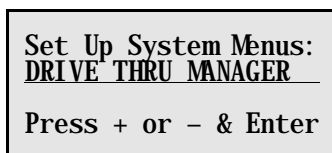
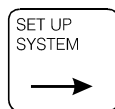
The System 30 has a user diagnostics feature which you can perform by following the instructions in this section.



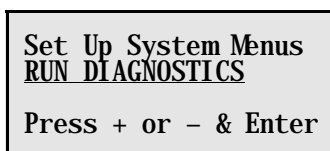
Before doing any diagnostic tests, check the system status reports to verify the system's status.

To run diagnostics:

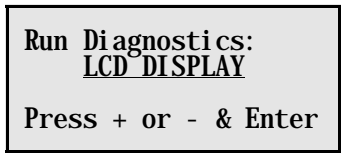
Step 1 Press the SET UP SYSTEM key.
The timer will show the Set Up System Menus display.



Step 2 Press +/- until RUN DIAGNOSTICS appears in the display.



Step 3 Press **ENTER**. The Run Diagnostics display will appear.



Step 4 Press +/- to select a diagnostic test to run. Test options include KEYPAD, LCD DISPLAY, PRINTER, and REMOTE. Press **ENTER** again to choose the selected test. RUN will display.

Step 5 Press **ENTER** to start the selected test. A copy of the test results will automatically be printed. The testing process can be stopped by pressing **ENTER** or **EXIT** at any time.

D. Clearing Printer-Paper Jams

If the paper in your System 30 printer jams, follow these instructions carefully.



CAUTION!

Never pull the paper backward through the printer, toward the paper roll, to remove it from the printer.

Step 1 Open the front panel of the System 30 control unit by pressing down on the small button on top of the cabinet and slowly pulling the front panel forward.

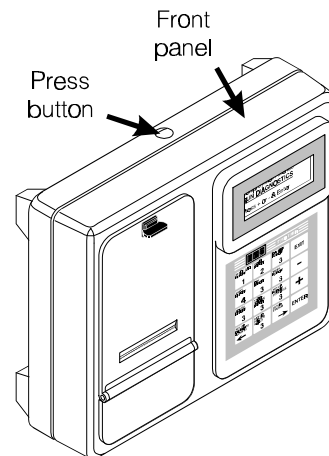


Figure 10. Press down on button and pull front panel forward.

Step 2 Remove power from the printer by gripping the cable connector and pulling it out of its receptacle on the main circuit board.

Pull the connector, not the cable.

Push the cable and connector back through the hole in the cabinet.

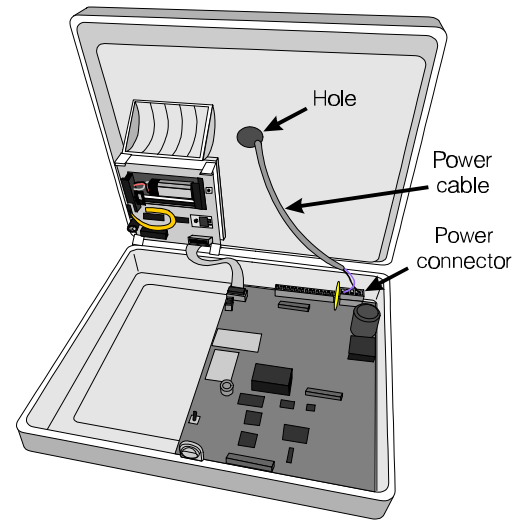


Figure 11.
Remove power from printer

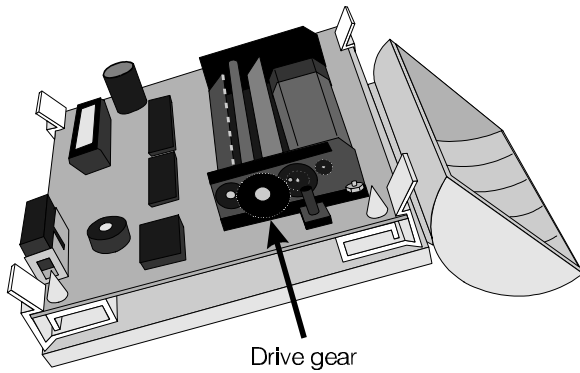


Figure 12. Turn drive gear to move platen

Step 3 Locate the drive gear, the largest black, plastic gear on the right side of the printer. Turn the gear slowly counterclockwise to move the printer head (platen) to the left, or clockwise to move it to the right, away from the jammed paper.

NOTE: Most paper jams occur when the platen pushes the torn paper to the right side of the roller.

Step 4 Pull the paper forward slowly to clear the jammed paper from the roller area. Tweezers may be needed. Tear or cut off any damaged paper.

Step 5 Plug the power cable connector back into the receptacle on the main circuit board, and carefully close the front panel of the control unit.

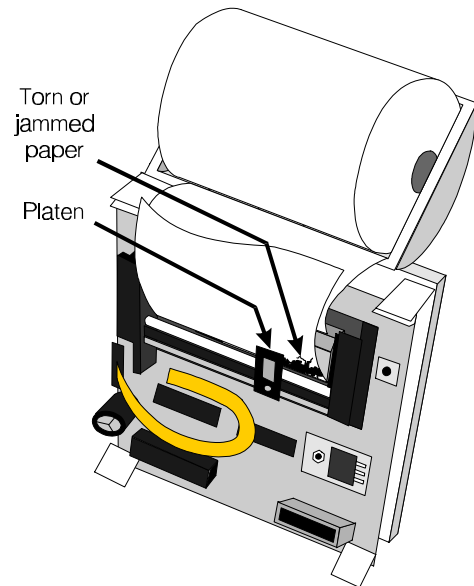


Figure 13. Move platen away from jammed paper



V. OPTIONAL EQUIPMENT

The following equipment is available for use with the System 30.
To order any of these items, call the HME Sales Department at (858) 535-6060.

Equipment	Model Number
Standard, Single-Sided, Multicolor Remote Display with 2¼ inch (57.15mm) display and 50 ft. (15 m.) Cable	R31S
System 30 Single-Sided Remote Display with 1 inch (25.4mm) display and 50 ft. (15 m.) Cable	R30
System 30 Single-Side Remote Display with 2¼ inch (57.15mm) display and 50 ft. (15 m.) Cable	R30S
System 30 Dual-Side Remote Display with 2¼ inch (57.15mm) display and 50 ft. (15 m.) Cable	R30D
System 30 Single-Side Super-Bright Remote Display with 2¼ inch (57.15mm) display and 50 ft. (15 m.) Cable	R30SB
System 30 Dual-Side Super-Bright Remote Display with 2¼ inch (57.15mm) display and 50 ft. (15 m.) Cable	R30DB
Thermal Printer Paper	*
Ultrasonic Vehicle Detector	DU2 or DU3
Vehicle Detector Board	VDB101B
External vehicle Loop Detector	VDX201
Computer Serial-Port Interface Cable (This cable can also be ordered from a computer dealer.)	See Appendix D
Stop Timer Switch	SB1
Strobe Light	SL1
Audio Alert	*
Modem	MK1
PC Software	PC30
Control Switch	*
Phone Line Switch	LS1
100 ft. (30 m.) Extension Cable	*
Printer Replacement Kit	*

* Some products have no model numbers. They can be ordered by description only.

VI. SPECIFICATIONS

Control Unit

Voltage input	12VAC
Supply current (max)	Main unit only 0.4A Main + 1 remote 0.7A Main + 2 remotes 1.0A Main + 3 remotes 1.3A Main + 4 remotes 1.6A
Indicators	4-line alpha-numeric LCD data display
Connectors	6-pin header for AC power and remote display 16-pin header for detection point, greet, and control 9-pin female D-sub connector for PC interface 2-pin header for alert output
PC interface	RS232, baud rate 9600, full-duplex
Operating temperature	32E to 104EF (0E to 40EC)
Dimensions	9"H x 11" W x 4"D (406 x 305 x 89 mm)
Weight	3 lbs, 5 oz. (1.5 kg) maximum

R31S Remote Display, Multicolor, 2¼" LED

Dimensions	4.75"H x 8.75"W x 2.28"D (120.65 x 222.25 x 57.15 mm)
Weight	2 lb 8 oz (1.13 Kg)

Internal Printer

Line width	24 characters per line
Printer paper	Thermal calculator paper

Optional Remote Display, 1" LED (R30)

Dimensions	6.6"H x 4.3"W x 1.8"D (167.64 x 109.22 x 47.52 mm)
Weight	8 oz (.22 Kg)

Optional Remote Display Unit, 2¼" LED

Dimensions	4¾"H x 8¾"W x 2¼"D (120.65 x 222.25 x 57.15 mm)
Weight	2 lbs 8 oz (1.13 kg)

APPENDIX A

Installer Setup Changes

The Installer Setup displays are used to change the printing options, number of lanes, detector assignments, and other basic system settings.

Step 1 Press +/- to select INSTALLER SETUP.

Setup System Menus:
INSTALLER SETUP
Press + or - & Enter

Step 2 Press ENTER. The Enter Installer Password display will appear.

Enter Installer
Password for access
to INSTALLER SETUP.
Code: _ _ _ _ _

Step 3 Enter your Installer Password using the number keys and press ENTER.
A warning display will appear.

CHANGES TO INSTALLER
SETUP WILL DELETE
HISTORICAL RECORDS!
PRESS EXIT or ENTER.

Step 4 Press ENTER to continue. The Installer Setup display will appear.

Installer Setup:
***** CAUTION *****
DELETE UNDER 4 SECS
Press + or - & Enter

Step 5 Press +/- to choose a setup option: DELETE UNDER 4 SECS, SET PRINTER OPTION, SET UP LANE, SET CONTROL, ASSIGN LOCATIONS, SET NUMBER OF LANES, FORMAT SELECT and DEFAULT PROGRAM.

Installer Setup Options

1. Delete Vehicles Under 4 Seconds go to page 77
2. Set Options go to page 78
3. Set Up Lane go to page 79
4. Set Control go to page 81
5. Assign Locations go to page 83
6. Set Number of Lanes go to page 89
7. Select Format go to page 90
8. Reset Defaults go to page 91
9. Set Up Adjustable Total go to page 92

Delete Vehicles Under 4 Seconds

This function is used to discard vehicles that drive through without stopping, and therefore do not record at least 4 seconds at the detection point that marks the beginning or end of the vehicle's total time.

The installer can set the system to discard vehicles that do not remain at the detection point at the *start* of the total time, at the *end* of the total time, or both. The system defaults are YES at the start and NO at the end.

- Step 1** Press +/- until DELETE UNDER 4 SECS appears on the selection line of the Installer Setup display.

```
Installer Setup:
***** CAUTION *****
DELETE UNDER 4 SECS
Press + or - & Enter
```

- Step 2** Press ENTER. The Discard <4 Sec Vehs (discard vehicles under 4 seconds) display will appear.

- Step 3** Press +/- to set each field On (YES) or Off (NO). Press ENTER to move to the next field.

```
Discard <4 Sec Vehs:
At start of Total YES
At end of Total: NO
Press + or - & Enter
```

- Step 4** Press EXIT three times to accept the setting and return to the Installer Setup display.

Set Options

Step 1 Press +/- to display SET OPTION on the selection line of the Installer Setup display.

```
Installer Setup:
***** CAUTION *****
SET OPTION
Press + or - & Enter
```

Step 2 Press ENTER to view the Printer option display.

```
Options:
Printer: INTERNAL
Baud Rate: 38400
Press + or - & Enter
```

Step 3 Press +/- to set one of the following options:

Field	Option	Function
Printer	Internal*	Use the System 30 internal printer (for most systems).
	External	Use an external printer.
	None	Do not print.
Baud Rate	9600	Serial port is configured for 9600 bits/second.
	19200	Serial port is configured for 19200 bits/second.
	38400*	Serial port is configured for 38400 bits/second.

* default value

For most systems, choose Internal.

Step 4 Press EXIT three times to accept this setting and return to the Installer Setup display.

Set Up Lane

Each store has a limit on how many cars can fit in the service lane, based on the length of the lane and the size of a typical car. This function allows you to discard vehicles when there are unusual delays in service or when the maximum number of cars allowed in the lane is exceeded.

Step 1 Press +/- until SET UP LANE appears on the selection line of the Installer Setup display.

```
Installer Setup:
***** CAUTION *****
SET UP LANE
Press + or - & Enter
```

Step 2 Press ENTER. The Set Up Lane display will appear.

```
Set Up Lane:
Max Serv Idle : 00:30
& Delay Time: 01:00
Max Cars in Q : 15
```

These times are in minutes:seconds only.

Step 3 Press ENTER or °, and then use the number keys to set the time duration desired.

Step 4 Press EXIT three times to accept this setting and return to the Installer Setup display.

Options for the Set Up Lane display include:

Option	Function
Maximum Service Idle	This is the maximum time that the last detection point "ON" or "CON" can be vacant with cars between locations. The possible range is 00:01 (one second) through 10:00 (10 minutes). The default is 00:30 (30 seconds).
Maximum Delay Time	This is the maximum time to allow for a vehicle to leave the first Detection Point "ON" or "CON", and arrival at the last Detection Point "ON" or "CON" before discarding the record. The possible range is 00:01 through 10:00 (minutes:seconds). The default is 01:00.
Maximum Number of Cars in the Lane	If the queue has more cars than the programmed maximum, the record for the first car will be discarded. Options are 1 through 24. The default is 15. The distance between the first detection point (menu board or order point) to the service window or pickup window is 10 feet per car.
Option off	Setting the Service and Delay times to 00:00 or 00 turns this function OFF. Cars will not be deleted even if they exceed the typical number of cars that can fit in the lane.

Set Control

The System 30 allows you to set up events that will be outside of the automatic control of the system. This function is typically used for two-lane installations, where the second lane is only open for heavy use periods. For example, a two-lane location may only require the second or passenger-side lane to be open during the heavy traffic lunch hours.

Step 1 Press +/- until SET CONTROL appears on the selection line of the Installer Setup display.

```
Installer Setup:
**** CAUTION ****
SET CONTROL
Press + or - & Enter
```

Step 2 Press ENTER. The Set Control display will appear.

```
Set "CONTROL" to OFF
Schedule MON-SUN
From 00:00A To 00:00P
Press + or - & Enter
```

Step 3 Press +/- and the number keys to set the status for this location.

Option	Definition
AUTO	AUTO permits the timed scheduling of opening and closing times for the events that are assigned CON in the Assign Locations display.
MANUAL	MANUAL permits the store to control opening and closing of the events through the activation of a remote switch.
OFF	No independent control is set.

Step 4 Press ENTER or °, and then use the +/- keys to set the days of the week for this detection point to be controlled.

Step 5 Press ENTER or °, and then use the number keys to set the times for this location to be controlled.



Only events that have been assigned CON in the Assign Locations display (see page 83) will appear on the Set Control display.

Controlled events will open at the Controlled schedule or store opening, whichever is later.

Controlled events will close at the Controlled schedule time or store close, whichever is earlier.

Step 6 Press **EXIT** three times to accept changes and return to the Installer Setup display.

Assign Locations

When the system is set up, you must assign a function (On, Off, Independent, Greet, etc.) to each detection point. You must also assign a name to each point (Menu, Service, Cashier, etc.). Follow the instructions below to complete these setup activities using the ASSIGN LOCATIONS displays.

- Step 1** Press +/- until ASSIGN LOCATIONS appears on the selection line of the Installer Setup display.

```

Installer Setup:
**** CAUTION ****
ASSIGN LOCATIONS
Press + or - & Enter
    
```

- Step 2** Press ENTER to accept this selection.

The first display in the Assign Locations sequence allows you to enter the function, name, and delay time for detection points 1 and 2.

NOTE: The system will display the proper menus for the number of lanes entered in the Number of Lanes display.

```

Assign Locations(p1)
V1= ALT /P-WARN DLO
V2= ON /MENU DLO
Press + or - & Enter
    
```

The system allows the following settings for each detection point:

Setting	Definition
ON	Always active during open hours.
OFF	No detection point programmed.
CON	Controlled by a remote switch or by the event control schedule. Typically used for peak hour lanes in multi-lane locations.
ALT	ALERT tone only, does not count for reports.
IND	INDEPENDENT is assigned when times will be recorded and reported but not calculated into the total time. IND will always be assigned to the Wait Area and can be assigned to a Pre-alert, Alert or Pre-Warning detection point.
GRT	When GREET is assigned, the audio is connected to the detection point instead of a vehicle detector. Note: If GRT is selected the appropriate switch on S19 of the circuit board must be selected.

Step 3 Press +/- to select a setting for each detection point in the system.
Press **ENTER** to move to the NAME field.

Step 4 Press +/- to select a Name to assign to each detection point in the system.
Event name options are listed on the next two pages.

Step 5 Press **ENTER** to accept the Name entry and move to the Delay Time field.

Step 6 Use the number keys to set a Delay Time (0-9 seconds) for each detection point.

The detection delay allows you to eliminate delays that employees are not responsible for, such as a delay at the menu board to permit the customer to roll down the window or a delay at the cashier's station to permit the customer to get their money out.

Event Names: One- Lane Location

The system allows you to assign any of a set of pre-programmed names to each detection point in the system. The table below lists the available names for a one-lane system.

Location Name	System 30 Name
ARRIVAL	ARRIVAL
ALERT	ALERT
BOOTH	BOOTH
CASHIER	CASHER
DELIVERY	DELIVRY
GREET	GREET
GREET 1	GREET 1
GREET 2	GREET 2
MENU BOARD	MENU
MENU BOARD 1	MENU 1
MENU BOARD 2	MENU 2
ORDER POINT	ORDERPT
ORDER POINT 1	ORDER 1
ORDER POINT 2	ORDER 2
PICKUP WINDOW	PICKUP
PRE-ALERT	PRE-ALT
PRE-LOOP	PRE-LP
PRESENTER	PRESNTR
PRE-WARNING	P WARN
SERVICE	SERVICE
WAIT AREA	WAIT AR
WINDOW 1	WINDOW1
WINDOW 2	WINDOW2

The same name cannot be assigned to more than one location!

Assigning Names in a One-Lane Location:

The following sample screens show how a one-lane system with six detection points could be set up.

- Step 1** Press +/- until ASSIGN LOCATIONS appears on the selection line of the Installer Setup display.

```
Installer Setup:
**** CAUTION ****
ASSIGN LOCATIONS
Press + or - & Enter
```

- Step 2** Press ENTER to accept this selection.

- Step 3** Press +/- to select a setting for each detection point.
Press ENTER or ° to move to the Name field.

- Step 4** Press +/- to choose a name for each detection point.
Press ENTER or ° to move to the Delay Time field.

- Step 5** Use the number keys to enter a Delay Time for each detection point.

```
Assign Locations(p1)
V1= ALT /P-WARN DLO
V2= ON /MENU DLO
Press + or - & Enter
```

- Step 6** Press ENTER or ° to move to the next display.

```
Assign Locations(p2)
V3= GRT /GREET DLO
V4= ON /CASHER DLO
Press + or - & Enter
```

NOTE: The delay times do not take effect until the System 30 Timer is reset by pressing the reset switch.

Step 7 Press **ENTER** or \circ to move to the next display.

```
Assign Locations (p3)
V5= ON /SERVICE DLO
V6= IND /WAIT AR DLO
Press + or - & Enter
```

NOTE: GREET cannot come before MENU.

Step 8 Press **EXIT** when all detection points in the system have been set.

*There will be a brief delay while the system is being configured.
The system will then return to the Installer Setup display.*

```
Installer Setup:
***** CAUTION *****
ASSIGN LOCATIONS
Press + or - & Enter
```

r If you are done, press **EXIT** to return to the Standby display.

Event Names: Two-Lane Location

The system allows you to assign any of a set of pre-programmed names to each detection point in the system. The table below lists the available names for a two-lane system.

Location Name	System 30 Abbreviation
ARRIVAL 1	ARVL 1
ARRIVAL 2	ARVL 2
ALERT 1	ALT 1
ALERT 2	ALT 2
PRE-ALERT 1	P-ALT 1
PRE-ALERT 2	P-ALT 2
PRE-LOOP 1	P-LP 1
PRE-LOOP 2	P-LP 2
PRE-WARNING 1	PW 1
PRE-WARNING 2	PW2
BOOTH 1	BOOTH 1
BOOTH 2	BOOTH 2
CASHIER 1	CASHR 1
CASHIER 2	CASHR 2
DELIVERY 1	DLVRY 1
DELIVERY 2	DLVRY 2
GREET 1	GREET 1
GREET 2	GREET 2
MENU BOARD 1	MENU 1
MENU BOARD 2	MENU 2
ORDER POINT 1	ORDER 1
ORDER POINT 2	ORDER 2
PRESENTER1	PRSNT 1
PRESENTER2	PRSNT 2
SERVICE 1	SERV 1
SERVICE 2	SERV 2

Assigning Names in a Two-Lane Location:

The following sample screens show how a two-lane system with six detection points could be set up.

- Step 1** Press +/- until ASSIGN LOCATIONS appears on the selection line of the Installer Setup display.

```
Installer Setup:
***** CAUTION *****
ASSIGN LOCATIONS
Press + or - & Enter
```

- Step 2** Press ENTER to accept this selection.

```
Assign Locations (p1)
V1= ON /MENU 1 DLO
V2= ON /MENU 2 DLO
Press + or - & Enter
```

- Step 3** Press ENTER or ° to move to the next display.

```
Assign Locations (p2)
V3= ON /CASHR 1 DLO
V4= ON /CASHR 2 DLO
Press + or - & Enter
```

- Step 4** Press ENTER or ° to move to the next display.

```
Assign Locations (p3)
V5= OFF /_____ DLO
V6= OFF /_____ DLO
Press + or - & Enter
```

- Step 5** Press EXIT when all detection points in the system have been set.

*There will be a brief delay while the system is being configured.
The system will then return to the Installer Setup display.*

```
Installer Setup:
***** CAUTION *****
ASSIGN LOCATIONS
Press + or - & Enter
```

- r** If you are done, press EXIT to return to the Standby display.

Set Number of Lanes

This function allows the user to tell the system the number of lanes in the store location.

- Step 1** Press +/- until SET NUMBER OF LANES appears on the selection line of the Installer Setup display.

```
Installer Setup:
**** CAUTION ****
SET NUMBER OF LANES
Press + or - & Enter
```

- Step 2** Press ENTER to accept this selection.
The system will ask you to select the number of lanes for this location.

```
Set Number of
Lanes: 1
      (1 or 2)
Press # and EXIT
```

- Step 3** Press the number keys to enter the number of lanes.

- Step 4** Press EXIT to accept the setting and return to the Installer Setup display.



In a six-lane store location, individual lanes can be turned off.

Select Format

This function allows the user to select either seconds only or minutes:seconds format for times shown on the display and printed on reports.

- Step 1** Press +/- until **FORMAT SELECT** appears on the selection line of the Installer Setup display.

```
Installer Setup:
**** CAUTION ****
  FORMAT SELECT
Press + or - & Enter
```

- Step 2** Press **ENTER** to accept this selection.
The system will ask you to select the format for times to be in minutes and seconds, or seconds only.

```
Format Select:
Format: MINUTES:SECS
        SECONDS ONLY
Press + or - & Enter
```

- Step 3** Press +/- to select either **MINUTES:SECS** or **SECONDS ONLY**

- Step 4** Press **ENTER** to accept the setting and press **EXIT** to return to the Installer Setup display.

Reset Defaults

The system can be reset to the factory defaults.

NOTE: Resetting the system will erase all user-programmed settings and car data.

Step 1 From the Standby display, press the Set Up System key.

```
12: 34: 12P- G - N N N
Service =      01: 32
Cars in Lane =      6
Total Time =     2. 32
```

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Step 2 Press +/- until INSTALLER SETUP is displayed.

```
Set Up System Menus:
  INSTALLER SETUP
Press + or - & Enter
```

Step 3 Press ENTER. The Installer Warning display will appear.

```
CHANGES TO INSTALLER
SETUP WILL DELETE
HISTORICAL RECORDS!
PRESS EXIT OR ENTER.
```

Step 4 Press ENTER. The Installer Setup display appears. Press +/- until DEFAULT PROGRAM is displayed.

```
Installer Setup:
***** CAUTION *****
  DEFAULT PROGRAM
Press + or - & Enter
```

Step 5 Press ENTER. The Reset System display appears.

Step 6 Press +/- to choose Yes or No.

```
Reset System to
DEFAULT SETTINGS?
  YES
Press + or - & Enter
```

If you choose YES, requesting the system to be reset to defaults, a warning message will be displayed.

```
DEFAULTING SYSTEM
WILL ERASE CUSTOMER
SETTINGS AND DATA!
press EXIT or ENTER
```

Step 7 Press **ENTER** to reset the system, or press **EXIT** to cancel the system reset.

Step 8 Press **EXIT** until the system returns to the Standby display.

```
12: 34: 12P- G - N N N
Service =      01: 32
Cars in Lane =      6
Total Time =    2. 32
```

Times on the Standby display will be shown in either minutes:seconds or seconds only, depending on the format selected in the Installer Setup.

Set Up Adjustable Total

The total time that a car experiences through the lane is based on settings that configure the start and end of the total time.

Step 1 Press +/- until SET UP TOTAL appears on the Installer Setup display, then press **ENTER**.

```
Installer Setup:
***CAUTION***
SET UP TOTAL
Press + or - & ENTER
```

Step 2 Press +/- to set the Adjustable Total Mode to MANUAL or AUTO.

```
Total Time: AUTO
Lane: 1
Start: SERVICE@ARRVL
Stop: WINDOW @DEPRT
```

If you choose AUTO, the previous Adjustable Total will be defined from the arrival to the first detector to the departure from the last detector.

```
Total Time: MANUAL
Lane: 1
Start: MENU @DEPRT
Stop: WINDOW @ARRVL
```

If you choose MANUAL, you can choose whether to start accumulating TOTAL time from the arrival at or departure from an event, as well as which two events define start and stop of the TOTAL time.

APPENDIX B

PC Interface Setup

You must have an HME PC30 to use the System 30 with a Personal Computer (PC).

To interface the System 30 with a personal computer serial port, you must have an RS232 interface (Null Modem) cable. If you do not, it can be purchased at most computer stores or from HME. The cable must be connected to the 9-pin connector on top of the System 30 control unit, and to the RS232 serial port on the PC. Pin connections for the cable wires must be as shown in Figure 13, below.

If you have any questions please contact HME at 1-800-848-4468.

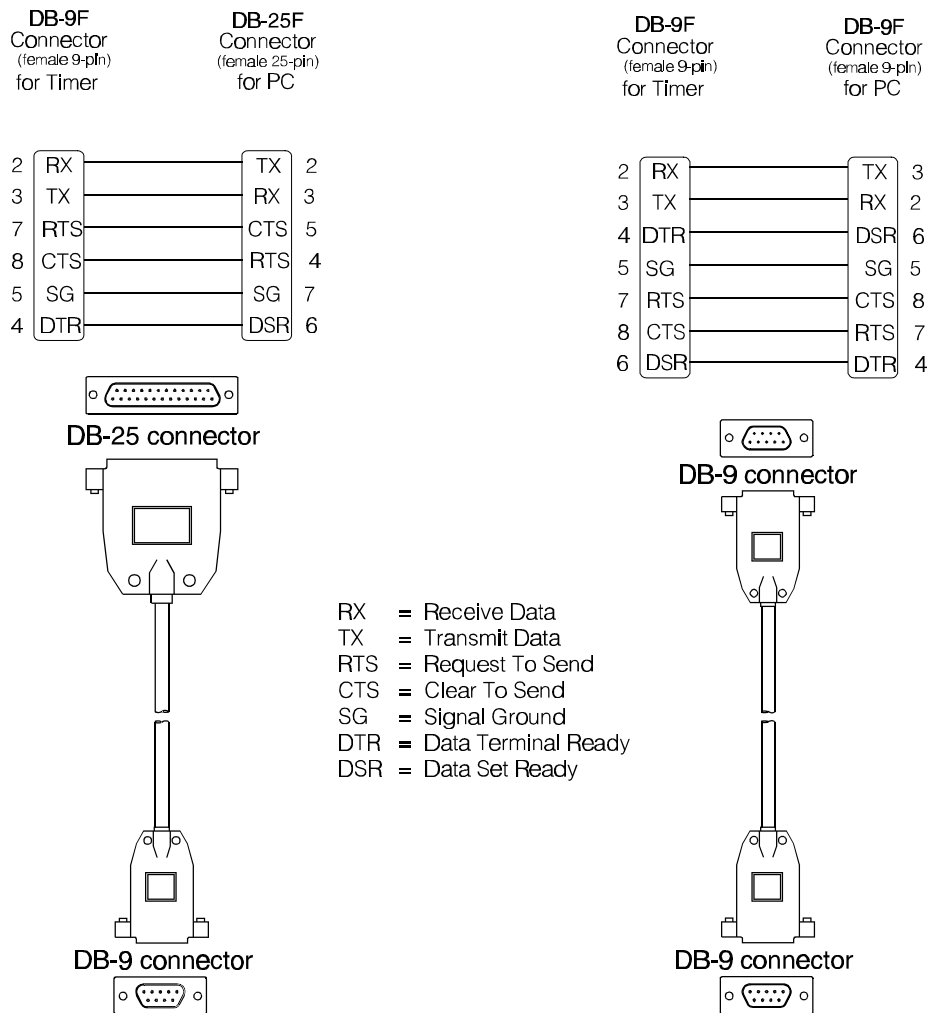


Figure 14. RS232 connectors

APPENDIX C

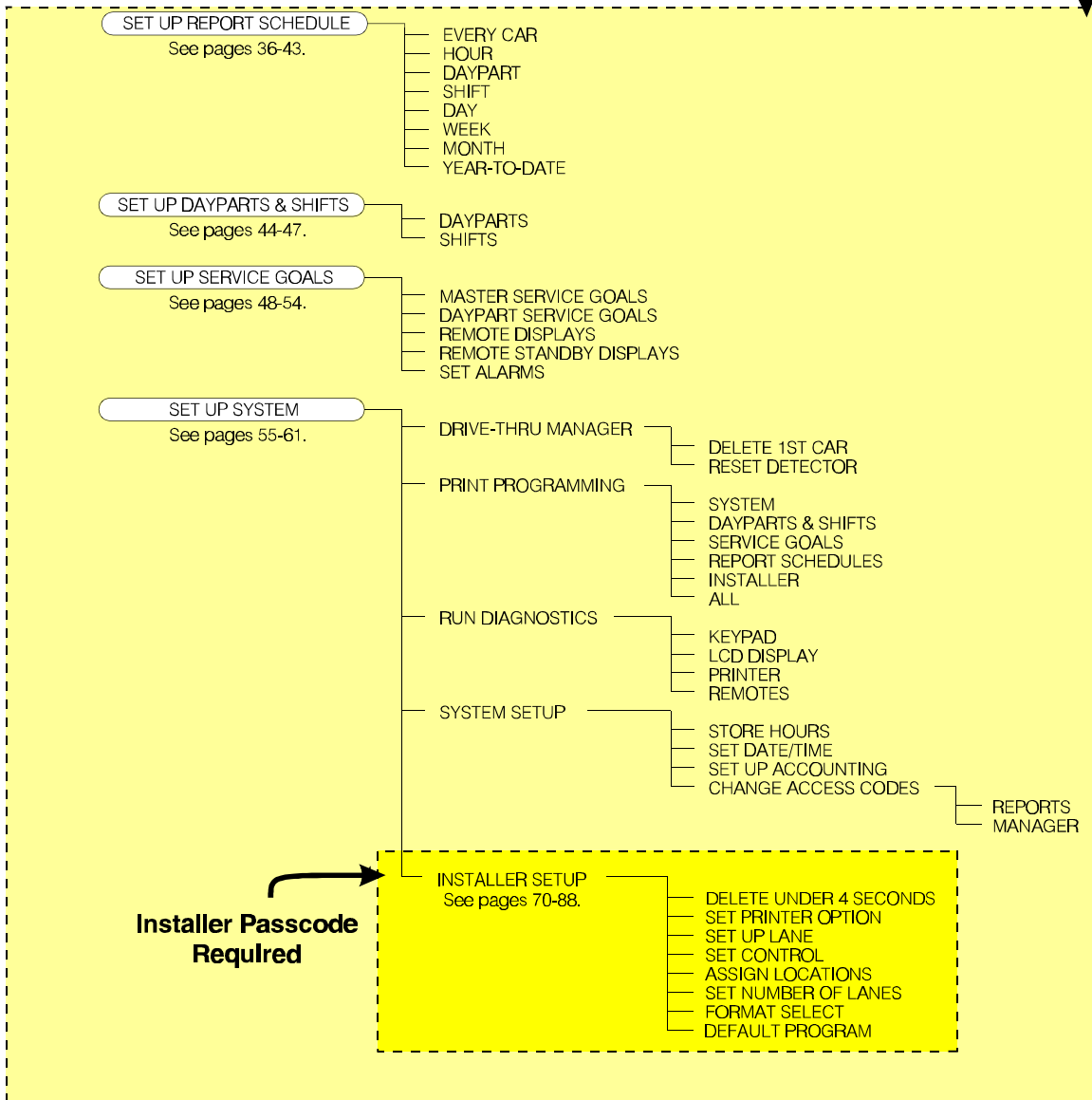
Flowchart for Quick Reference

System 30 Menus

Reports Passcode May Be Required
Manager Passcode May Be Required

- EVERY CAR REPORT See page 17.
- HOUR REPORT See page 19.
- DAYPART REPORT See page 21.
- SHIFT REPORT See page 23.
- DAY REPORT See page 25.
- WEEK REPORT See page 27.
- MONTH REPORT See page 29.
- YEAR-TO-DATE REPORT See page 31.

Manager Passcode May Be Required



Installer Passcode Required