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G900 Group Dispatching System Field Reprogramming Manual MODEL G900 Compact and XL Models Software Version 5.x

Product Documentation that's Simple to Navigate™

This is the Field Reprogramming Manual to be used with all Model G900 Series Group Dispatching Systems. Other resources include:

- **Field Reprogramming Manual** for Model V900/H900 Prodigy & Standard controllers
- **Slave Controller Manual**
- **Drive Specific Manuals**
- **Maintenance & Troubleshooting Training Manual** provided in conjunction with Factory and Customer Site technical training classes
- **Telephone Technical Support** available for Customers at no charge
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Publication G900 Reprogramming Manual Version 5 rev 3/11/09
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Introduction

Warnings

Throughout this manual, icons will be used to call attention to certain areas of text. These icons represent safety warnings, cautions, and notes.

WARNING: Denotes operating procedures and practices that may result in personal injury and/or equipment damage if not correctly followed.

CAUTION: Denotes operating procedures and practices that may result in equipment damage if not correctly followed.

NOTE: Denotes useful information or procedures.

Throughout this manual it is assumed that field personnel are well qualified in the installation of elevator equipment. No attempt has been made to define terms or procedures that should be familiar to a qualified elevator mechanic.

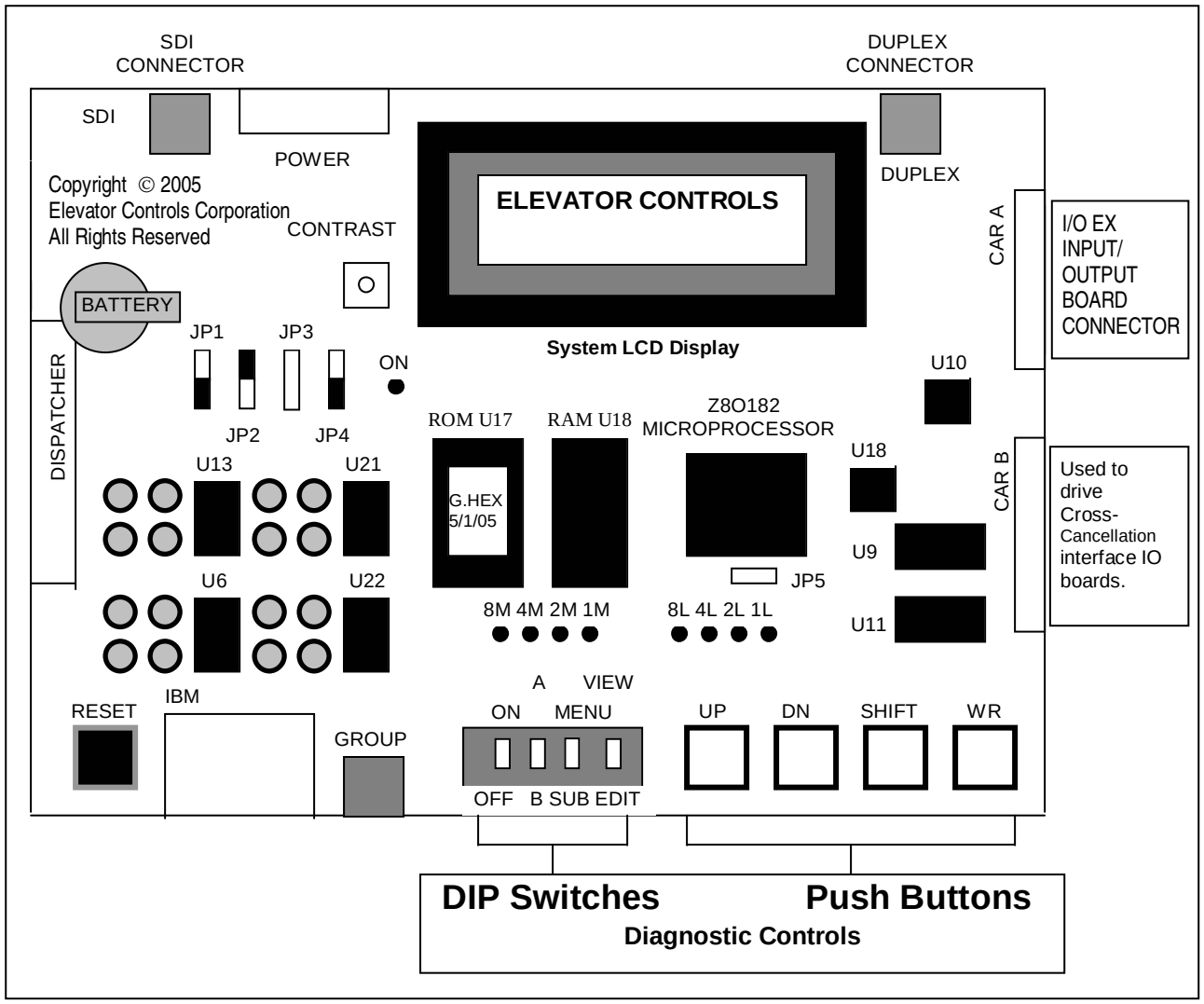
NOTE: Some of the information in this manual is pertinent only to Part # P8, with software Version 5.0 and above dated 9/1/05 or later. Software version and date can be found by viewing the User Menu - Software Version.

Reprogramming Using Onboard Diagnostics

1.1 Overview of P8 Microprocessor boards

The P8 Microprocessor Computer board, whose pictogram appears below, is used in all G900 series of controllers. Reprogramming and diagnostic controls are located on the bottom right-hand side of the P8. The liquid crystal display (LCD) is also used by the on-board diagnostics. The LCD is located at the top center of the P8 board.

P8 Microprocessor Board Layout



The four DIP switches and four push buttons make up the diagnostic controls. The name and function of each control is summarized in the Push Button Functions table below. The buttons listed in the table from top to bottom correspond to the buttons from left to right on the P8. The name for each button in the left column of the table corresponds to how it is labeled on the P8 board and to the labels on the drawing above. For more information about the function of each button, please refer to the sections later in this chapter.

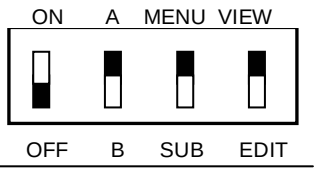
WARNING: Do not depress the button (labeled RESET) on the P8 board while an elevator is in operation, as it will cause the car to come to an immediate stop.

Push Button Functions

Button Name	Function
ON/OFF DIP switch	Selects between elevator status and user display
A/B DIP switch	Not used by the G900 Group Dispatching System controllers
MENU/SUB DIP switch	Selects menu or sub-menu display in the user display.
VIEW/EDIT DIP switch	Selects view parameter or edit (change) parameter in the user display.
UP push button	Selects the next menu or sub-menu in the user display.
DN (DOWN) push button	Selects the previous menu or sub-menu in the user display.
SHIFT push button	Selects the next parameter or digit in the edit (change) parameter mode in the user display.
WR (WRITE) push button	Saves the changed parameter permanently when in edit (change) parameter mode in the user display.

1.2 Selecting the G900 Group Status Display

Move the **ON/OFF** DIP switch to the **OFF** position. The Elevator Status display is now selected. The system LCD will display up to four of the following messages. The LED's display the highest priority code according to the table below:



LED Error Codes

LED Display Code	Hex Value	Description
Left-to-Right		
○○○○●○○○	08	Main Fire service phase 1
○○○●○○●○	12	Write failure to EEPROM
○○○●○●○●	15	Password key entered
○●●○○○○●	61	Emergency power phase 1
○●●○○○●○	62	Emergency power phase 2
○●●●○○○○	70	Security operation
●○○●●○○●	99	Intermittent demand program
●○●○○●○●	A5	Balanced demand program
●○●○●●●○	AE	Alternate Fire Service
●○●●●●●●	BF	Up peak demand program
●●●○○○○○	E0	Hospital service
●●●●●●○●	FD	Down peak demand program
●●●●●●○●	FF	Lobby up peak demand program

The left hand column of the table above provides the LED code for each error displayed. These codes are generally only useful to determine the fault condition with the highest priority. If more than one fault is present, the LCD messages will scroll up to four faults at a time. The G900 group Status display will also display the date and time for the G900 Group controller.

1.3 Selecting the User Display

To select the User Display, move the **ON/OFF** switch to the **ON** position. Move the **MENU/SUB** DIP switch to the MENU position. Finally, move the **VIEW/EDIT** switch to the **VIEW** position.

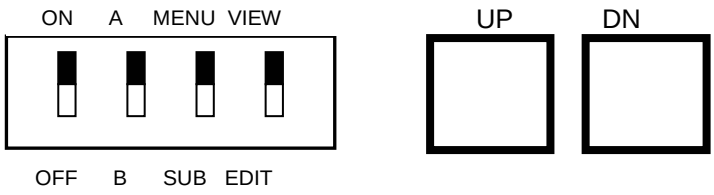
The User Display has seven programming menu options from which you can select, described below. The exact function of each of the menu items is explained on the following pages. Each menu works in the same way. Use the **UP** and **DN** push buttons to select the menu item from the list below. When the menu item you want is displayed, move the **MENU/SUB** DIP switch to the **SUB** position. The LCD will then display the sub-menu for that User Display menu.

User Display Menus

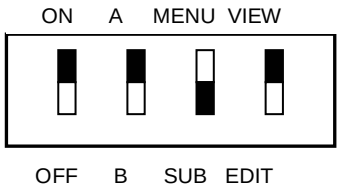
Direct Access	System Timers	Password Access
Set Clock	System Variables	Software Version
Fault Log	Parking	

User Display

1.4 Changing a User Display Menu Parameter



1. Set the DIP switches as shown and use the **UP** and **DN** push buttons to select the User Display menu you want.



2. Then move the **MENU/SUB** DIP switch to the **SUB** position. The LCD will then show the submenu for that User Display menu.

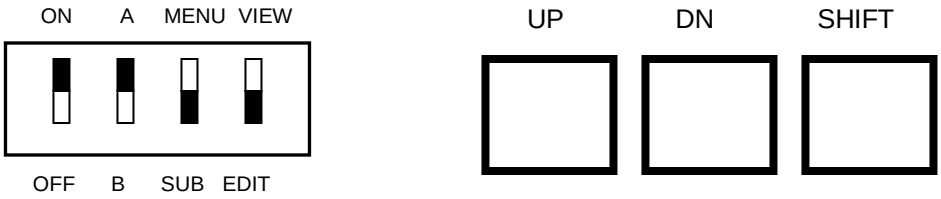
3. Use the **UP** and **DN** push buttons to select the parameter to be viewed.

Once you have selected a User Display parameter, you have the option of changing its value. For all User Display menus except Direct Access, follow this procedure.

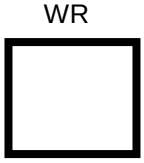
Move the **VIEW/EDIT** DIP switch to the **EDIT** position. The bottom line of the LCD will change; 'New=XX' will appear where XX is the current value of the User Display parameter. Next, use the **UP** and **DN** push buttons to change the value. Use the **SHIFT** push button to switch to the next digit. When the value you want is displayed, press the **WR** (WRITE) push button to record the new value permanently. Return the **VIEW/EDIT** DIP switch back to the **VIEW** position.

CAUTION: Write down the value of the parameter before you begin changing it. If you make a mistake, you can always restore the old value.

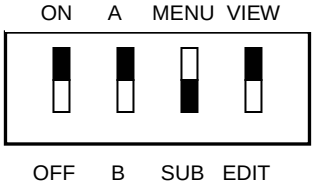
WARNING: If you realize you made a mistake, **DO NOT** PRESS THE **WR** BUTTON. Instead, skip that step and move the **VIEW/EDIT** DIP switch to the **VIEW** position. The old value will automatically be restored.



1. Set the DIP switches as shown to change a User Display parameter. Use the UP, DN and SHIFT push buttons to change the value of the parameter.



2. Press the WR (WRITE) push button to record your changes permanently. Skip this step if you decide that you don't want to record your changes permanently.



3. Move the VIEW/EDIT DIP switch back to the position shown. To select another Parameter in the selected sub-menu, use the UP and DN push buttons. To select another User Display sub-menu, start over again as on the previous page.

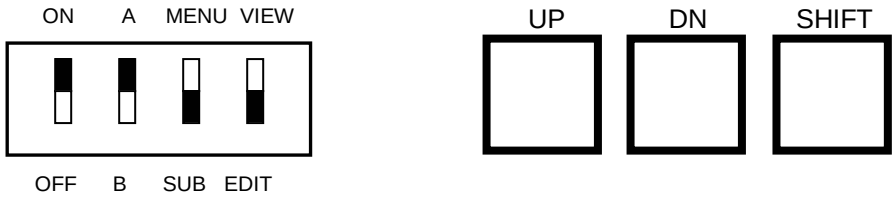
1.5 Changing a Direct Access Parameter

Once you have selected the Direct Access menu, you have the option of selecting an individual parameter and changing its value.

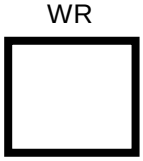
Move the **MENU/SUB** DIP switch to the **SUB** position. The bottom line of the LCD will change; 'A000=XX' will appear where XX will be the current value of the selected parameter.
Next, use the **UP**, and **DN** push buttons to change the first digit (F). Use the **SHIFT** push button to switch to the next digit, etc. When the parameter you want is displayed, move the **VIEW/EDIT** DIP switch to the **EDIT** position. The bottom line of the LCD will change; 'New=XX' will appear where XX is the current value of the User Display parameter.
Use the **UP** and **DN** push buttons to change the value. Use the **SHIFT** push button to switch to the next digit. When the value you want is displayed, press the **WR** (WRITE) push button to record the new value permanently.

CAUTION: Write down the value of the parameter before you begin changing it. If you make a mistake, you can always restore the old value.

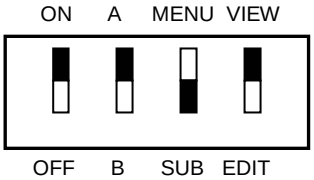
WARNING: If you realize you made a mistake, **DO NOT** PRESS THE **WR** BUTTON. Instead, skip that step and move the **VIEW/EDIT** DIP switch to the **VIEW** position. The old value will automatically be restored.



1. Set the DIP switches as shown to change a User Display parameter. Use the **UP**, **DN** and **SHIFT** push buttons to change the value of the parameter.



2. Press the **WR** (WRITE) push button to record your changes permanently. Skip this step if you decide that you don't want to record your changes permanently.



3. Move the **VIEW/EDIT** DIP switch back to the position shown. To select another Parameter in the selected sub-menu, use the **UP** and **DN** push buttons. To select another User Display submenu, start over again as on the previous page.

1.6 Direct Access User Display

The Direct Access User Display menu bypasses many of the other menus. Use this menu when directed by Elevator Controls technical support.

To view "Memory Flags, inputs and outputs," use direct access and refer to the "Memory Flag Listing" table Section 1.14 below of this manual.

Normally, you will use one of the following User Display menus:

To change system clock, use the **Set Clock** User Display menu.
To change system timers, use the **System Timers** User Display menu.
To change system I/O programming, use the **System Variables** User Display menu.
To change or enter Password, use the **Password Access** User Display menu.
To change building elevator zone assignments, use the **Parking** User Display menu.
To view software version, use the **Software Version** User Display menu.
To view cumulative circular Fault Log, use the **Fault Log** User Display menu.

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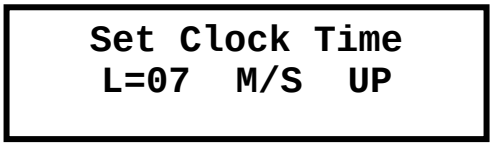
1.7 Set Time Clock Parameters



Use the Set Clock Time User Display to change your date and time display. The table below lists all of the options available within the Set Clock Time menu. Use the **UP** and **DN** push buttons to select parameters to view.

Time Clock Parameters

Parameter	Function
Clk: Seconds 00-59	Sets the current second for the system clock.
Clk: Minutes 00-59	Sets the current minute for the system clock.
Clk: Hours 00-23	Sets the current hour for the system clock. The clock uses military time. 00 hour is midnight to 1AM. 13 hour is 1PM.
Clk: Day SUN, MON, TUE,… SAT	Sets the current day of the week. SUN=Sunday, MON=Monday, TUE=Tuesday, WED=Wednesday, THU=Thursday, FRI=Friday and SAT=Saturday
Clk: Date 01-31	Sets the current day of the month.
Clk: Month JAN, FEB, MAR, ….. …, DEC	Sets the current month of the year. JAN=January, FEB=February, MAR=March, APR=April, MAY=May, JUN=June, JUL=July, AUG=August, SEP=September, OCT=October, NOV=November, DEC=December.
Clk: Year 00-99	Two digit year, i.e. enter 04 for 2004.

Space intentionally left blank

1.8 Fault Log List

```
Fault Log List
L=xx  M/S  UP
```

✍ **NOTE**: xx indicates the number of faults in the fault buffer from 0 to 25.

The Fault Log List User Display is used to view up to the last 25 faults logged. Upon entering this menu, move the Menu/ Sub switch to Sub position, to view the following display. **If the fault log needs to be cleared, press the WR button**. If you want to view and keep the existing fault log, simply scroll through the faults using the **UP** and **DN** buttons.

```
Fault Log
Write Clears All
```

Once the **UP** or **DN** button are pressed, fault entries will be displayed. The display has four quadrants: The fault entry number appears at the top left corner, the fault code at top right corner, date of fault occurrence at bottom left corner, and time, time is displayed in military format 24 hour clock, of occurrence at bottom right corner.

```
01  Fault=08
Jan 12 11:11:35
```

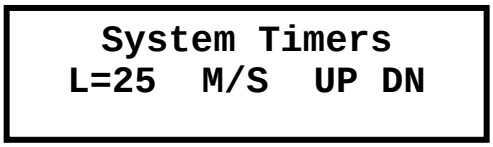
✍ **NOTE**: Pressing **DN** button positions the fault pointer at the most recent fault logged
in the buffer, pressing **UP** button first places fault pointer to oldest fault logged.

To translate the fault code, simple place the View switch in the Edit position to show the fault code, on the top line, and the fault code translation will scroll on the bottom line of LCD display.

```
01 Fault = 08
Main Fire Svc Phase1
```

To go back to fault scroll mode simply place the **EDIT** switch back to **VIEW** and repeat steps above to scroll through rest of fault history.

1.9 System Timers



The table below lists parameters available in the System Timers submenu. Use the **UP** and **DN** push buttons to select one of the parameters below.

✍ **NOTE**: Timer values are in seconds.

✍ **NOTE**: Timers can be disabled by setting the Direct Access parameters to 00.

System Timers

Timer Name (Direct Access Parameters)	**Description**
TFT Timer Value (A790 – A791)	Sets the time allowed for a moving car to return to the lobby under emergency power control. Default = 180 seconds
Preselect Timer (A7A0 – A7A1)	Time period the group will hold a car condition waiting for another car to meet the criteria to enter Lobby Up Peak mode of operation. Default = 90 seconds
Up - Peak Timer (A7A2 – A7A3)	Waiting period once conditions are met for Up Peak mode of operation before actually entering Up Peak. Default = 15 seconds.
Pgm Change Timer (A7A4 – A7A5)	Waiting period to exit a Peak Mode of operation after conditions to exit mode are met. Default = 20 seconds.
Dn - Peak Timer (A7A6 – A7A7)	Waiting period once conditions are met for Down Peak mode of operation before actually entering Down Peak. Default = 15 seconds.
Up Serv Sel Timr (A7AC – A7AD)	Time to service up calls while on Down Peak mode of operation. Factory Set to 45 seconds.
Up Bypass Timer (A7AE – A7AF)	Time allowed for an up service selected car to service down hall calls during Down Peak mode of operation Factory Set to 90 seconds
Dn Serv Sel Timr (A7B0 – A7B1)	Time to service down calls while on Up Peak mode of operation. Factory Set to 45 seconds
Dn Bypass Timer (A7B2 – A7B3)	Time allowed for an down service selected car to service down hall calls during Up Peak mode of operation Factory Set to 90 seconds

Y-Timer Car 0, 1, 2, 3, 4, 5, 6, 7 (A780 – A781) Car 0 (A782 – A783) Car 1 (A784 – A785) Car 2 (A786 – A787) Car 3 (A788 – A789) Car 4 (A78A – A78B) Car 5 (A78C – A78D) Car 6 (A78E – A78F) Car 7	Sets the time to wait for car 0, 1, 2, 3, 4, 5, 6, 7 to switch motor starter from Wye to Delta mode once it is given a permission to start command under Emergency Power mode of operation. Default = 10 seconds.
ZMT- Car 0, 1, 2, 3, 4, 5, 6, 7 (A7C0 – A7C1) Car 0 (A7C2 – A7C3) Car 1 (A7C4 – A7C5) Car 2 (A7C6 – A7C7) Car 3 (A7C8 – A7C9) Car 4 (A7CA – A7CB) Car 5 (A7CC – A7CD) Car 6 (A7CE – A7CF) Car 7	Sets the time to wait for a car to move into a zone parking floor after zone becomes empty and car becomes free to park. Default = 10 seconds.

1.10 System Variables

```
System Variables
L=28  M/S  UP DN
```

The System Variables User Display represent options used for dispatching of two or more car control system behavior such emergency power behaviors, parking, etc,. The table below lists parameters available in the System Variables submenu. Use the **UP** and **DN** push buttons to select one of the parameters below.

Some of the options should not be changed unless you are directed to by Elevator Controls technical support staff to do so. These options will change the configuration of your I/O and will require rewiring. These options are marked with a †.

WARNING: Do not change † parameters (below) without first contacting Elevator Controls support staff for assistance.

System Variables

Variable Option Name	Description
LCD Display Rate	Controls scrolling rate for the LCD. Default = 3.
LNDC:Cars in Grp	Number of cars attached to the group controller, 1 bit per car i.e. 01= 1 car, 03= 2 cars, 07= 3 cars, 0F= 4 cars,…FF= 8 cars.

CNDC:Norm Gr Ctl	Number of cars under group control in binary format using bits 3, 4, 5 for count, i.e. 2 cars= 08, 3 cars = 10, … 8 cars = 38
carNum	Binary count number of cars under group control, i.e. 00= 1 car, 01= 2 cars, 02= 3 cars…07= 8 cars
Cross cancel Opt.	00= off, 01= G900 will drive a cross cancellation panel through car B P8 port of the P8 board.
Remote Qual Word †	Program reserved do not change normally set =00
MNP2:Max-1 Ph 2	One less than the number of cars allowed to run under Emergency Power Phase 2 operation in hex i.e. 00= 1 car, 01= 2 cars, 02= 3 cars, …..07= 8 cars
MEGC:Max Emr Pwr	Number of cars to be returned under Emergency Power return same format as CNDC and bit 0= 1, i.e. 2 cars= 09, 3 cars = 11, … 8 cars = 39
Seq Start:0=none	Sequential Starting Option set to 01 as default.
Top Floor Value †	The highest landing minus 1 in hex format, i.e. level 1 = 00
Lobby Floor Val	The lobby landing minus 1 in hex format, i.e. level 1 = 00
Hosp:Car Capable	Cars not allowed to participate in hospital service, 1 bit per car starting from right to left, i.e. 01 = car 1 not allowed
inOpt1 †, inOpt2 †, inOpt3 †	Group input output options control, do not modify it will disturb the group IO factory settings. Consult with Elevator Controls Technical Support Department before modifying. †
Fire Code Option	Set to 01 for Chicago to hold fire service if one car on phase 2 Set to 02 to have the fire reset switch override smoke detectors Set to 40 to comply with ASME 1996 fire code.
Alt fire rt:Y= 01	Alternate Fire Service Option Default = 01
Cars Not Ret EP	Cars not be returned under Emergency Power Phase 1 return, 1 bit per car starting from right to left, i.e. 01 = car 1 not allowed
Lobby Zone Numbr	Building zone where the lobby floor is located in binary format.
FDP:Free car DSA	Car consideration status for theGroup dispatching algorithm 00 = Car participates when it is free not running and MG on 01 = Car participates regardless of the MG status 80 = Car participates when it is free moving or not 81 = Both 01 an 81 options above are considered. Set to 81 for solid state motor control driven cars
HLPN:Help Number	Number of stops a car has to have before it asks for call assignment help. Default = 02
No 50 bus display	No longer used default = 00
MPFF:Min Pk Par	Number of cars operating on normal operation required to enter peak modes of dispatching in binary format. 00= 1 car, 01= 2 cars, 02= 3 cars, …..07= 8 cars
Min Calls For Pk	Number of Hall Calls in one direction required to enter Up or Down Peak dispatching mode normally set to 80% of the number of served floors
ALD:Dif # For Pk	Number of calls differential number to exit a peak mode of operation normally set to 40% of Min Pk Par setting
Below Lobby Y=05	Set to 05 if lobby floor is not the bottom landing otherwise set to 00

Car call disc op	Not currently being used default = 00
Hall tmr startup	Time out value to make a hall call part of priority assignment in hex format. 00 = Call will use standard dispatching algorithm always 01 = Maximum wait time of 64 seconds used as default value 02 to FF to set up time in ¼ of seconds intervals, i.e. 50 seconds wait = 28 (40 decimal).
Pri flr for HCTS	Priority Floor usually set the same as Top Floor Value
Pri hall offs tmr	Penalty value added to H Call Tmr Start while timing the Pri Flr. For HCTS timer, value has the same format as Hall tmr startup

1.11 Parking

Parking menu contains parameters dealing with the building zone distribution to allow the car distribution based on building characteristics by assigning cars to cover predefined building areas, such areas can overlap if desired, however is preferable to divide the building into service areas based on demand, each area is defined by the ZTFN, zone top floor value, and the ZCFN, zone center value.

Parking

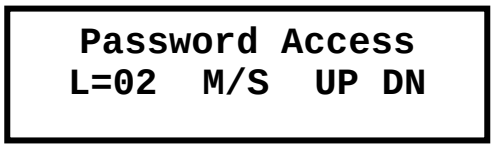
Variable Option Name	Description
TVZME: High Byte	Less significant portion of long zone motion timer value Default to 3E.
TVZME: Low Byte	High significant portion of long zone motion timer value Default to 7F.
Zone tp floor no ZTFN: Zone 1 ZTFN: Zone 2 ZTFN: Zone 3 ZTFN: Zone 4 ZTFN: Zone 5 ZTFN: Zone 6 ZTFN: Zone 7	Zone 0 top floor value minus 1, i.e. level 3 = 02 Zone 1 top floor value minus 1 Zone 2 top floor value minus 1 Zone 3 top floor value minus 1 Zone 4 top floor value minus 1 Zone 5 top floor value minus 1 Zone 6 top floor value minus 1 Zone 7 top floor value minus 1

Zone cntr flr no	Zone 0 parking floor location value minus 1, i.e. level 1 = 00
ZCFN: Zone 1	Zone 1 parking floor location value minus 1
ZCFN: Zone 2	Zone 2 parking floor location value minus 1
ZCFN: Zone 3	Zone 3 parking floor location value minus 1
ZCFN: Zone 4	Zone 4 parking floor location value minus 1
ZCFN: Zone 5	Zone 5 parking floor location value minus 1
ZCFN: Zone 6	Zone 6 parking floor location value minus 1
ZCFN: Zone 7	Zone 7 parking floor location value minus 1

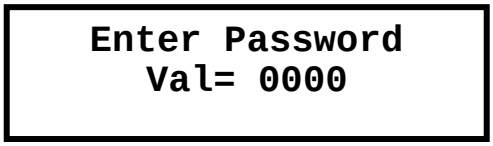
1.12 Password Access

A password is a way to protect your controller from unauthorized users. A password will prevent unauthorized changes to field reprogrammable controller data and personality parameters. Unless the correct password is entered, the P8 microprocessor will ignore the **WR** (Write) push button when a personality address is displayed, thereby preventing data from being changed. A new password must be entered before changing or deactivating the current password.

The controller can be reprogrammed by first entering the four character password key. Entering the correct key will enable the **WR** write push button, allowing changes to be made to controller personality parameters. Cycling power or resetting the P8 microprocessor (pushing the "Reset" button) will remove the password entered.



With the main menu displaying Password Access, lower the **MENU/SUB** switch to display:

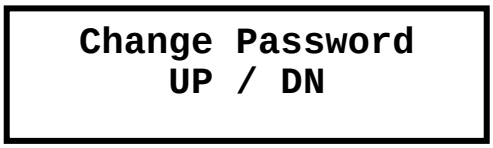


Press the **UP** or **DN** buttons to cycle through 1 – 9 and A – Z. Press the **SHIFT** button to cycle clockwise through the four characters. Finally press the **WR** button to compare the digits on the password entry display to the master password. If there is a match, **OK** will be display on the LCD screen. Raise the **MENU** and **VIEW** switch to exit to the main menu or lower the ON / OFF switch to exit the menu system.

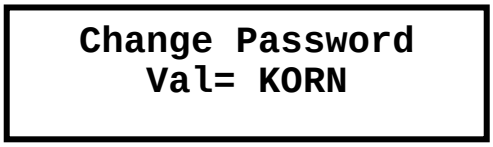
The password remains active for approximately two hours and twenty minutes during which time the personality parameters may be changed. The controller LCD will display "Password Active".

The password is disabled upon entry of the master password (0000) allowing access to all personality parameters. No message will be displayed on the controller LCD screen.

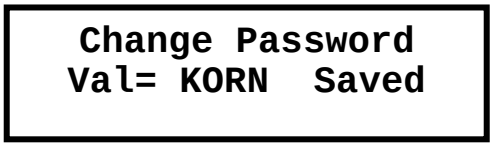
Starting with all switches in the up position, lower the **MENU/SUB** switch from the Password Access menu, to display the change password screen.



Lower the **VIEW/EDIT** switch to edit the current password.



Press the **UP** or **DN** buttons to cycle through 1 – 9 and A – Z. Press the **SHIFT** button to cycle clockwise through the four characters. The LCD screen will display "Saved" upon pressing the **WR** button and saving the new password key.



Raise the **MENU** and **VIEW** switch to exit to the main menu or lower the **ON/OFF** switch to exit the menu system.

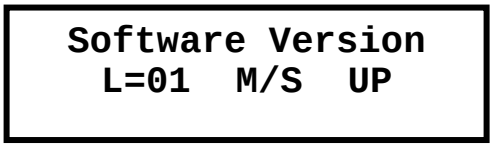
Prevent changes to the personality parameters while away from the controller by disabling or removing the password key. Starting with all switches in the up position, lower the **MENU/SUB** switch from the Password Access menu to display the change password screen. Press the **UP** or **DN** buttons to display:

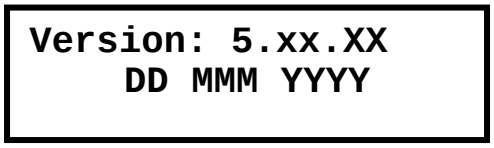
Lower the **VIEW/EDIT** switch to display:

Upon pressing the **WR** button the password key is removed deactivating the **WR** button, while the master password value remains unchanged.

1.13 Software Version

To verify the software version, use the User Display to access the Software Version submenu.





1.14 Memory Flags List

Use the Direct Access User Display to view memory flags. This is an important debugging aid. If you suspect that the system is not responding to a signal, check the memory flags to determine whether the computer is actually receiving or trying to send an output signal.

Make sure the signal is present on the IO-EX board verifying the LED indicator associated with the signal, or by verifying correct signal voltage at the signal terminal or test point (if available). If the signal is present there, a defective board may be preventing the G900 Group computer from receiving the signal.

Using the Direct Access menu, dial up the address of the signal or signals to be observed (please note the addresses associated with each group of signals on table below).

Using table, identify the signal in question and refer to the associated LED from 1L to 8M. To properly observe the actual signal behavior, is recommended that the LEDs be used, since each LED is associated with a specific signal and the LCD display may not have a fast enough refresh rate to display all signal changes, potentially confusing rather than aiding diagnosis.

Refer to Appendix B for proper identification of the pneumonic used to identify each signal.

EXAMPLE: To view the status of FRS, Main Fire Service return input.

1. Using the direct access menu select memory address 841A.
2. Identify LED 4M representing FRS input.
3. Observe whether the LED on the computer follows the status of the fire service sensor.

✍ **NOTE**: Some of the pneumonic names have been underscored denoting an active low signal, where the LED is off when the signal is active.

✍ **NOTE**: The following memory flag chart is a copy of the memory flag chart found inside the G900 group controller door.

ELEVATOR CONTROLS
SIMPLE SOLID SUPPORTABLE

MPC-P8 SOFTWARE VERSION G.x

Bar over signal name indicates the signal is active when LED is off.

MEMORY FLAG LISTING

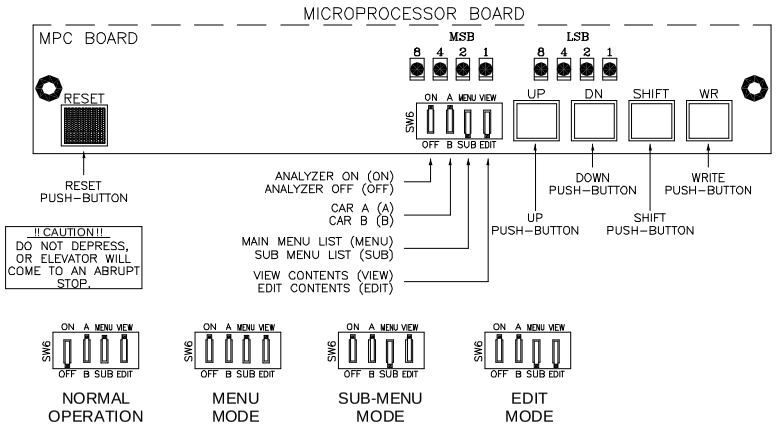
"DIRECT ACCESS" ADDRESS	Left Most L.E.D. ⑧	④	②	①	⑧	④	②	Right Most L.E.D. ①	
8-4-1-0	TPR	LYP	DLY	SBCD	0	0	0	0	G900 INPUT OUTPUT I/O
8-4-1-1	LAG	CIC	PRIE	PRTL	0	0	0	0	
8-4-1-2	0	0	0	HCDD	0	0	0	0	
8-4-1-3	0	0	0	AII	0	0	0	0	
8-4-1-4	FSNEPI	NCCL	FRSEL	UDSEL	0	0	0	0	
8-4-1-6	ITTME2	GLWR	UPFRST	UPFCN	0	0	0	0	
8-4-1-8	mFIRE	aFIRE	FRO	FBPM	FBP	FON	HF1	DCLF	
8-4-1-9	BSI	ACS	0	N5B	0	0	DUPI	0	
8-4-1-A	FRSMEM	FRS	FRA	FRAMEM	0	0	0	0	
8-4-1-C	BALI	INTI	DDPI	LUPI	BALO	INTO	DDPO	LUPO	
8-4-2-0	HSI	EPI	EP2	EP1	EPLi	0	0	0	
8-4-2-3	BAL	INT	DDP	LUP	0	0	0	0	
8-4-2-4	0	0	0	DUP	0	0	0	0	
8-4-2-5	TEMPF	USS	DSS	FLHL	0	0	0	0	
8-4-2-6	0	DDPIM	DUPIM	LUPIM	0	0	0	0	
8-4-2-7	GRL7	GRL6	GRL5	GRL4	GRL3	GRL2	GRL1	GRL0	
8-4-2-8	ESC7	ESC6	ESC5	ESC4	ESC3	ESC2	ESC1	ESC0	
8-4-2-9	CTL7	CTL6	CTL5	CTL4	CTL3	CTL2	CTL1	CTL0	Com. Comands
8-4-2-A	FON7	FON6	FON5	FON4	FON3	FON2	FON1	FON0	
8-4-2-B	IND7	IND6	IND5	IND4	IND3	IND2	IND1	IND0	
8-4-2-C	OFF7	OFF6	OFF5	OFF4	OFF3	OFF2	OFF1	OFF0	
8-4-2-D	SEC7	SEC6	SEC5	SEC4	SEC3	SEC2	SEC1	SEC0	

MEMORY COMMUNICATED FLAG LISTING BETWEEN GROUP AND CARS

WHERE X= 8 FOR CAR 0, 9 FOR CAR 1, A FOR CAR 2 .....F FOR CAR 8

8-4-X-0	ZMT	0	0	HIM	gEGR	gIND	gCTL	gOOS	GGROUP TO CAR
8-4-X-1	cmFIRE	PTR	PTS	LRF	IFRO	FON	IHF2	IHF1	
8-4-X-2	caFIRE	EPS	HSEL	SELDLY	0	EPL	IND	EPP	
8-4-X-3	0	SUDA	SUAA	SDAA	0	0	0	0	CAR TO GROUP FLAGS
8-4-X-4	DLK	ISR	ISV	ISRT	0	rdOPT	hospmem	emtin	
8-4-X-5	MPRI	HLW	HSPEED	HI	0	insCT	insINC	insACC	
8-4-X-6	UCA	UCB	DCA	DCB	0	EGR	CTL	OOS	
8-4-X-7	0	SU	SUA	SDA	0	0	0	0	
8-4-X-8	DOL	DEL	YRQ	DOF	0	0	0	0	
8-4-X-9	RUN	FRC	PIL	DZ	0	0	0	0	
8-4-X-A	0	CCA	CCB	0	0	0	0	0	
8-4-X-B	SBC	0	0	0	0	0	0	0	
8-4-X-C	CCDFU	CCDFD	0	LCD	grpMF	grpEP	0	0	
8-4-X-D	0	0	0	0	0	0	0	0	
8-4-X-E	0	0	0	0	0	0	0	0	
8-4-X-F	DLKM	0	USP	DSP	0			0	

CONTROLS and INDICATORS



"WARNING"

For proper operation of Static Drive and Microprocessor Controller must ensure that:

1. Incoming controller power and outgoing motor power wires are routed in separate grounded conduits, and routed away from printed circuit boards.
   "DON'T ROUTE MOTOR AND POWER WIRES TOGETHER"
   Routing incoming power and outgoing motor power wires together may induce noise into power lines, and render "RFI" filters ineffective.

2. Properly ground motor and controller with direct solid wire. Indirect grounds that relay on pipes or conduit instead of a properly sized solid ground are a poor practice and may result in "RFI" noise.disturbances affecting electronic sensitive equipment.

"ENVIRONMENTAL LIMITS"

32 TO 104 DEGREES FAHRENHEIT OR 0 TO 40 DEGREES CELSIUS, 95 % RELATIVE HUMIDITY (NON-CONDENSING).

1.15 Car Stopping Tables Verification

The G900 Group contains a copy of the each car and hall call Elegibility Stopping Table, it uses such tables for hall call to car assignment, The car Elegibility Stopping Tables are located at memory location A500 for car 0, A540 for car 1, A580 for car 2 etc..

Using Direct Access menu we can verify the contents of each car Elegibility car table on a per car, per floor per call basis to make sure each car is capable of servicing the floors which will be require to serve, with the information format shown on Stopping Table below.

NOTE: Each car Elegibility Stopping Table is 40 Hex apart from one another such as for car 0 level 1 is at A500 Car 1 level 1 will be at A540, etc.

NOTE: Changing parameters in this User Display will cause you terminal wiring configuration to change. You should contact Elevator Controls Corporation support staff for help if you need to change any of these parameters.

WARNING: Do not change † parameters (below) without first contacting Elevator Controls support staff for assistance.

Stopping Table

Parameter	Function
† Level 1 Car 0 @ A500 Car 1 @ A540 Car 2 @ A580 Car 3 @ A5C0 Car 4 @ A600 Car 5 @ A640 Car 7 @ A680 Car 7 @ A6C0	Each parameter contains the hex coding for one floor of the elevator system. **M:** X X CCR CCF**; L:** UPR DNR UPF DNF † Description: DNF - Set to 0 to enable a down call at this floor. † UPF - Set to 0 to enable an up call at this floor. † DNR - Set to 0 to enable a rear down call at this floor. † UPR - Set to 0 to enable a rear up calls at this floor. † CCF - Set to 0 to enable a car call at this floor. † CCR- Set to 0 enable a car call rear X - Unused. Set to 1. X - Unused. Set to 1.
† Level 2 Car 0 @ A501 Car 1 @ A541 Car 2 @ A581 Car 3 @ A5C1 Car 4 @ A601 Car 5 @ A641 Car 7 @ A681 Car 7 @ A6C1	same as above †
† **Level** 3	same as above †
Etc.	etc.

Common Codes for Stopping Table

	Function
† FF	Car doesn't stop here. All your floors above the top one must have this code. †
† EE	One car call and one down call. This is the normal code for the top floor. †
† EC	One car call, up call and down call. This is the normal code for an intermediate floor. †
† ED	One car call and one up call. This is the normal code for the bottom floor, F11. †
† C0	All calls-front and rear car calls, up calls and down calls. This is the code for levels with two openings. †
† DB	One rear car call and down call. A top floor with a only a rear opening. †
† D3	One rear car call, up call and down call. An intermediate floor with a rear opening. †
† D7	One rear car call and up call. A bottom floor with rear openings. †
† Changing these parameters will change your terminal I/O configuration. Contact Elevator Controls support staff for assistance.	

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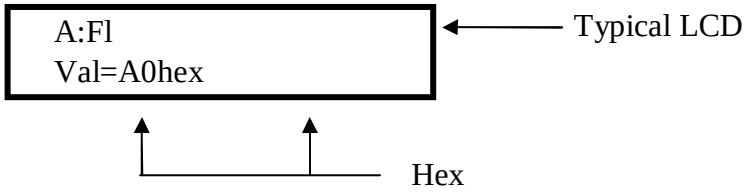
Appendix A –
Working with Hexadecimal Numbers

Elevator Controls uses hexadecimal (hex) numbers in several of the User Displays. Hex numbers are a compact way of representing information.

A1 – Converting Hexadecimal Numbers

Hex numbers are always displayed as two digits. The first digit (left hand side) contains the M or most significant information; the second digit (right hand side) contains the L or lest significant information. The digits themselves use the number 0 through 9 and letters A through F.

Hex Numbers



In the example above, A0 and EE are the hex numbers. A and E are the M digits and 0 and E are the L digits. The M and L digits are indicated in the description in the text by bold letters.

To use hex numbers, you must convert each digit separately into a series of four ones and zeros. Use the table on the next page to do the conversion. Then compare the ones and zeros with the description given in the User Display.

Converting Hex

Example Conversion A:Fl 2 VAL=C0hex

Hex	**C**	**0**
Converte	**1 1 0 0**	**0 0 0 0**
Descriptio	**M** X X CCR CCF**;**	**L:** UPR DNR UPF

Resul This shows that car will respond to front and rear car (CCR/CCF =0), and to all hall calls front and rear DNR=UPF=UPR=0) since a 0 here means

(See section 1.15 Car Stopping Verification Tables)

Hexadecimal Number Conversions			
Hex Number	Conversion	Hex Number	Conversion
0	0 0 0 0	8	1 0 0 0
1	0 0 0 1	9	1 0 0 1
2	0 0 1 0	A	1 0 1 0
3	0 0 1 1	B	1 0 1 1
4	0 1 0 0	C	1 1 0 0
5	0 1 0 1	D	1 1 0 1
6	0 1 1 0	E	1 1 1 0
7	0 1 1 1	F	1 1 1 1

A2 – Changing Hex Numbers

Changing a hex number is a four step process, whether it is an option, an internal flag or anything else. Follow the outline below:

1. Convert the hex number as described on the previous page. This will indicate which options are currently set.
2. Decide what options you want to set (or reset). If necessary, write the new series of ones and zeros down on paper. This will help verify that the new series is correct. Do not try to proceed until you've checked this new series at least once. It is very easy to make a conversion mistake.
3. Use the table above to look up the new hex number from the new series of ones and zeros. The ones and zeros are in no particular order so you'll have to search the table carefully. Double check that you have the correct new hex number (it is a good idea to convert the new number as described in the previous section).
4. Now change the hex number via the User Display Section 1.3 , 1.4 and 1.5 of this manual.

Changing a Hexadecimal Number

1. First convert the existing number to which options are currently set. See instructions on the previous

A

1 1 0 0 0 0 0 0

X=1, X=1, CCR=0, CCF=0; UPR=0 DNR=0, UPF=0,

2. Then decide which options need to changed. For example, assume we only want the car to respond to car calls and hall up and

X=1, X=1, CCR=1, CCF=0; UPR=1 DNR=1, UPF=0,

1 1 0 0 1 1 0 0

3. Look up the new series of ones zeros in the table

C C

Appendix B –
Pneumonic Description Reference Table

B1 – Pneumonic description translation table

		LED Bank								
Name	Address	8	4	2	1	8	4	2	1	Description
ACS	8419	X								Alternate Call Scheme
aFire	8418		X							Master Alternate Fire
ALL	8413				X					All cars in service
BAL	8423	X								Balanced Demand active mode
BALI	841C	X								Balanced Demand mode input
BALO	841C					X				Balanced Demand Ind. Output
BSI	8419	X								Building Security Input
CIC	8411			X						Car Initiation Complete (Emr. Pwr.)
CTL0-7	8429	Car 7 to car 0, 1 bit per car								Car to Lobby 0 to 7
DDP	8423			X						Demand Down Peak active mode
DDPI	841C			X						Demand Down Peak mode input
DDPIM	8426		X							Demand Down Peak input memory
DDPO	841C						X			Demand Down Peak Ind. Output
DLY	8410			X						Delay Flag
DUP	8424				X					Demand Up Peak active mode
DUPI	8419						X			Demand Up Peak mode Input
DUPIM	8426			X						Demand Up Peak mode memory
DUPO	Not PRG.									Demand Up peak Ind. Output
DSS	8425			X						Down Service Select
EPI	8420				X					Emergency Power Input
EPLI	8420					X				
EP1	8420		X							Emergency Power Phase 1 Mode
EP2	8420			X						Emergency Power Phase 2 Mode
ESC0-7	8428	Car 7 to car 0, 1 bit per car								Car Select to run 0 to 7 Emr. Pwr. 2
FBP	8418					X				Fire Bypass input
FBPM	8418				X					Fire Bypass input memory
FLHL	8425				X					First Lobby Heavy Loaded Car
FON	8418					X				Fire Recall Input
FON0-7	8429	Car 7 to car 0, 1 bit per car								Fire Recall input 0 to 7
FRA	841A			X						Alternate Fire Input
FRAM	841A				X					Alternate Fire Input memory
FRO	8418			X						Fire Service Ind. Output
FRS	841A	X								Mai Fire Service Phase 1 input
FRSEL	8414			X						Fro or Rear flag select
FRSMEM	841A	X								Mai Fire Service Phase 1 memory
FSNEPI	8414	X								Floor Scan = Floor PI

		LED Bank								
Name	Address	8	4	2	1	8	4	2	1	Description
GLWR	8416		X							Gone Lower Flag
GRL0-7	8427	Car 7 to car 0, 1 bit per car								Group Release 0 to 7 input
HCCD	8412				X					Hall Call Disconnect Flag
HSI	8420	X								Hospital Service Request input
HF1	8418								X	Hoistway Fire Sensor 1
HF2	8418							X		Hoistway Fire Sensor 2
IND0-7	842B	Car 7 to car 0, 1 bit per car								Independent Service 0 to 7
INT	8423		X							Intermittent Program mode Active
INTI	841C		X							Intermittent Program mode input
INTO	841C						X			Intermittent Program Ind. output
ITTME2	8416	X								Second Pass Through Flag
LAG	8411	X								Loop Again Flag
LUP	8423				X					Lobby Up Peak Mode active
LUPI	841C				X					Lobby Up Peak Input
LUPIM	8426				X					Lobby Up Peak Input memory
LUPO	841C								X	Lobby Up Peak Ind. Output
LYP	8410		X							Legitimate Y flag production
mFIRE	8418	X								Main Fire master flag
NCCL	8414		X							No Car Call Logic flag
OFF0-7	842C	Car 7 to car 0, 1 bit per car								Shot Off Car flag 0 to 7
PRIE	8411			X						Permission to start
PRTL	8411				X					Permission to run
SBCD	8410				X					Squelch bits acquisition complete
SEC0-7	8428	Car 7 to car 0, 1 bit per car								Security mode 0 to 7
TEMPF	8425	X								Temporary Flag
TPR	8410	X								Hart beat rate at 0.25 seconds
UPFCN	8416				X					Up Function First
UPFRST	8416			X						Up Direction First
USS	8425	X								Up Service Select

NOTE: For car pneumonic description translation table and flag LED memory locations refer to Appendix B of V900/H900 Field Reprogramming manual for complete listing.