Specifications:PC Log Protocol

From PRISM

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1 General Description

PC Log Reports, a reporting option provided in select DMP Command Processor panels, allows panel event messages to be logged to a PC through an IP network using TCP protocol, depending on panel programming. The types of panel event messages logged when the PC Log Reports option is used is fully customizable in panel programming to include or exclude the following events:

- Arming, Disarming and Late To Close events
- Zone events (any change of status for active zones)
- User Command events (user code changes, schedule changes, and door access denied events)
- Door Access events
- System Monitor reports (such as AC and battery) and system events
- Real-time events

2 Message Protocol

A PC Log Report message consists of a Report Header (13 characters), a Minutes Ago Insert (6 characters), and a Serial 3 message (variable length).

2.1 Message Acknowledgment

If the PC receiving the PC Log Messages does not return an ACK (acknowledgment), the DMP command processor panel will resend the PC Log Message until an ACK is received or 45 days have elapsed. The resend intervals are based on a retry time programmed in the panel. Only the first unacknowledged message is resent; all other PC Log messages are queued up and will be sent once the first unacknowledged message is acknowledged.

An example ACK is as follows:

```
Acct.  ACK   Carriage
Char. Hex(6) Return
 |      |       |
54321  ACK     CR    <--- Example header
12345   6       7   <--- Character position
```

2.2 Report Header

The Report Header is made up of special characters that are inserted before the message. The Report Header for PC Log messages has a fixed length of 19 characters.

2.2.1 Report Header Examples

An example of a Report Header follows:

```
Start  CRC    Two    Acct.   One  Amper-  Minutes
Char.  Char. Spaces  Char.  Space  sand   Ago
 |      |      |       |      |
STX    75CF   ~~     ~4890    ~     &     42508      <--- Example header
 1     2345   67     89012    3     4     56789     <--- Character position
```

2.2.2 Start Character

A Start Character is the first character in the Report Header.

2.2.3 CRC-16 Error Checking

A four character (hexadecimal ASCII encoded) CRC-16-IBM calculation follows the start character in the Report Header. Two spaces (HEX 20) follow this checksum.

2.2.4 Account Number

The characters representing the alarm panel account number in the Report Header will always be five in length. When an alarm panel transmits a report with an account number that is less than five digits, that number will be right justified in the five character positions and unused character positions will be spaces (HEX 20).

2.2.5 "&" Minutes Ago

The time and date of a panel event is indicated by the Minute Ago string. The string begins with a "&" (HEX 26) character and is six characters in length.

```
       Minutes
Event    Ago
  |       |                                      This example illustrates that
  &     42508          <--- Example message       the message that follows the Minutes Ago string
  1     23456          <--- Character position    occurred 29 days, 12 hours, 28 minutes ago


Minutes ago event     1       character
Number of minutes     5       characters
                    -------------------------
                      6       Total Characters
```

1. Minutes Ago Event: Character Range = "&" (HEX 26)

2. Minutes Ago: Character Range = 0 - 65535 (right justified, space padded)

After the minutes ago string, a Serial 3 message will follow. A maximum minutes ago of 65,535 will indicate that the event occurred 45 days, 12 hours, 15 minutes ago.

2.2.6 Final Space

The Report Header ends with a single space (HEX 20) which separates the Report Header from the following, variable-length event message.

2.3 Serial 3 Messages

Serial 3 Messages are based on an "open" format in that they provide **variable lengths for text and numeric data plus variable positions for information**. Also, because sections of the message (Sub-Messages) are field delimited by a "\", future enhancements of a message are possible simply by adding another delimited field to the message string. The first character in a PC Log Serial 3 message is always an upper case "Z", occurring at position 20 immediately after the Report Header and Minutes Ago indication. The following example is a Serial 3 zone alarm message.

Za\062\t "BU\z 0232"FRONT DOOR\a 03"OFFICE\u 0568"JOHN SMITH\

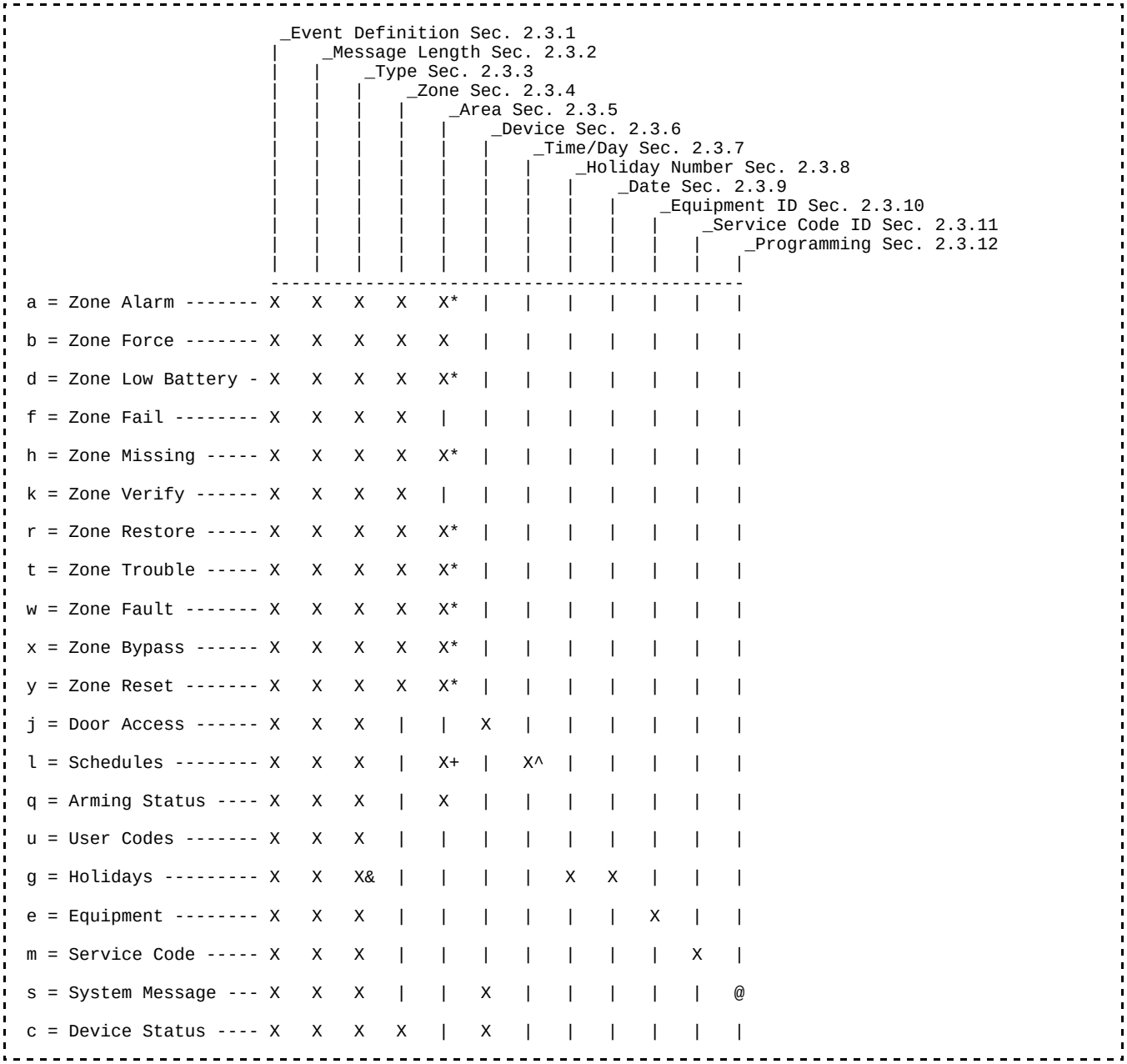
2.3.1 Serial 3 Event Definition

The message event definition is the second character in a Serial 3 message followed by a back-slash "\" field delimiter. Z*\

Message Event Definitions

* above =	a	=	Zone Alarm	r	=	Zone Restore	l	= Schedules
	b	=	Zone Force Arm	t	=	Zone Trouble	q	= Arming Status
	d	=	Wireless Zone Low Battery	w	=	Zone Fault	u	= User Codes
	f	=	Walk Test Zone Fail	x	=	Zone Bypass	g	= Holidays
	h	=	Wireless Zone Missing	y	=	Zone Reset	e	= Equipment
	k	=	Walk Test Zone Verify	j	=	Door Access	m	= Service Code
	s	=	System Message	c	=	Device Status		

The delimited fields (Sub-Message) that provide detail information for a message event are described in sections 2.3.2 Message Length to 2.3.13 Programming_Sub-Message and shown in the vertical (↕) columns of the chart below. Message events are shown in the horizontal (↔) rows. Typical delimited fields (Sub-messages) for each message event are marked with an X. The position or presence of any field in a message event is not guaranteed.




```
* = Not sent for EM (Emergency), PN (Panic), and SV (Supervisory) type zones.
^ = Time/Day Information sent twice with different qualifiers.
+ = Area Description only sent if panel is programmed for a schedule per area.
# = User info sent twice w/different qualifiers.
$ = Added field indicates smoke detector dirty.
@ = Sent with selected system messages:
      S19 (WARNING:  New Panel on Line)
      S83 (Remote Programming Complete)
      S86 (WARNING:  Local Programming)
      S97 (Network Communication Test OK)
& = Holiday A, B, C included for XR200-485 firmware version 200 or higher.
! = Added field indicates all areas are now armed.
```

It is strongly recommended that the automation system scan the Serial 3 string for the specific fields (Sub-Message) desired and ignore portions of the message that are not needed. The Sub-Message event characters always follow a "\" delimiter (HEX 5C). This allows for future expansion of the Serial 3 format without the need for instant automation system revisions.

2.3.2 Message Length

The second delimited field of a Serial 3 message contains numeric characters which indicate the message length, followed by the back-slash delimiter. The characters describe a count of the number of characters from, and including the starting "Z" character, to and including the termination character. For example: 061\ indicates the message is 61 characters in length including the termination character.

The termination character used in all reports sent to the PC Log Computer is a carriage return (HEX 0D).

2.3.3 Type Sub-Message

The Type Sub-Message delimited field contains numeric or text characters that describe the type of event that has occurred. The sub-message always starts with a lower case "t" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Type Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the type of event. They may be numeric or text characters and may vary in the number of characters sent. **When they are text characters, a double-quote will precede them.**

Numeric		**Text**
tqnnn	or	**tq"cc**

The lists below describe the various types for the events.

Zone Type	Arming Type	User Code Type
BL = Blank	OP = Area Disarmed	AD = User Code Added
FI = Fire	CL = Area Armed	CH = User Code Changed
BU = Burglary	LA = Area Late to Arm	DE = User Code Deleted
SV = Supervisory		
PN = Panic		
EM = Emergency		
A1 = Auxiliary 1		
A2 = Auxiliary 2		

Access Type	Schedule Type	Service User Type
DA = Door Access Granted	PE = Permanent Schedule	ST = Start Service User
AA = Denied: Armed Area	TE = Temporary Schedule	SP = Stop Service User
IA = Denied: Invalid Area	PR = Primary Schedule	
IT = Denied: Invalid Time	SE = Secondary Schedule	
AP = Denied: Previous Access	S1 = Shift One	
IC = Denied: Invalid Code	S2 = Shift Two	
IL = Denied: Invalid Level	S3 = Shift Three	
	S4 = Shift Four	

Status Type
DO = Door Status: Open
DC = Door Status: Closed
HO = Door Status: Held Open
FO = Door Status: Forced Open
ON = Output Status: On
OF = Output Status: Off
PL = Output Status: Pulse
TP = Output Status: Temporal

Equipment Type	System Message Type
RP = Repair	00 - 999 (see section 3)
RL = Replace	
AD = Add	
RM = Remove	
AJ = Adjust	
TS = Test	

Qualifier Type	Holiday Type
DT = Service	HA = Holiday Schedule A
AC = All Areas Armed	HB = Holiday Schedule B
	HC = Holiday Schedule C

2.3.4 Zone Sub-Message

For Report Messages with Events a, b, d, f, h, k, r, t, w, x, and y, a delimited Zone Sub-Message is included in the Serial 3 string. The Zone Sub-Message starts with a lower case "z" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Zone Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the zone number. They may vary in the number of characters sent. If the zone name is included, following the zone number will be double-quote delimited text characters that represent the zone name stored in the alarm panel memory. Typically, the number of text characters sent is 16 but may vary.

zqnnn"ccccccccccccccc

Possible String	Description	Notes
z	= Sub-Message Identifier	Constant one character
q	= Qualifier (Currently Space)	Constant one character
nnn	= Zone Number	Digits to indicate zone number, Ex. = 008, number of characters is variable - typically three
"	= Text Delimiter	Constant one character
ccccccccccccccc	= Zone Name Text	Text characters to indicate zone name, Ex. = FRONT DOOR, number of characters is variable - typically 16
\	= Field Delimiter	Constant one character

2.3.5 Area Sub-Message

For Report Messages with event "q" and events a, b, d, f, h, k, r, t, w, x, and y that are not of Type FI, SV, PN, or EM, a delimited Area Sub-Message is included in the Serial 3 string. The Area Sub-Message starts with a lower case "a" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Area Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the area number. They may vary in the number of characters sent. If the area name is included, following the area number will be double-quote delimited text characters that represent the area name stored in the alarm panel memory. Typically, the number of text characters sent is 16 but may vary.

aqnnn"ccccccccccccccc

Possible String	Description	Notes
a	= Area Sub-Message	Constant one character
q	= Qualifier (Currently Space)	Constant one character
nnn	= Area Number	Digits to indicate area number, Ex. = 008, number of characters is variable - typically three
"	= Text Delimiter	Constant one character
cccccccccccccccc	= Area Name Text	Text characters to indicate area name, Ex. = OFFICE, number of characters is variable - typically 16
\	= Field Delimiter	Constant one character

2.3.6 Device Sub-Message

A Device is a physical object on the alarm panel keypad bus or LX-Bus where a keypad/zone expansion or where door access equipment or where a relay output module may be installed.

For the Report Message with event "j" a delimited Device Sub-Message is included.

For the Report Message with event "s" that is Type 101 or 102, a delimited Device Sub-Message is included.

For the Report Message with event "c", a Device Sub-Message may be included to indicate an output number.

The Device Sub-Message starts with a lower case "v" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Device Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the Device Object. They may vary in the number of characters sent; typically three. When a device name is included, following the device address will be double-quote delimited text characters that represent the device name stored in the alarm panel memory. Typically, the number of text characters sent is 16 but may vary.

vqnnn

vqnnn"ccccccccccccccc

Possible String	Description	Notes
v	= Device Sub-Message	Constant one character
q	= Qualifier (Currently Space)	Constant one character
nnn	= Device Object	Digits to indicate device object, Ex. = 101, number of characters is variable - typically three
"	= Text Delimiter (if applicable)	Constant one character
ccccccccccccccc	= Device Name	Text characters to indicate device name, Ex. = FRONT ENTRANCE, number of characters is variable - typically 16
\	= Field Delimiter	Constant one character

2.3.7 Time/Day Sub-Message

For Report Message with event "l" (Schedule), a delimited Time/Day Sub-Message is included in the Serial 3 string. The Time/Day Sub-Message starts with a lower case "i" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, two Time/Day Sub-Message qualifiers have been defined. They are: lower case "o" which indicates an opening time and the second qualifier is lower case "c" which indicates a closing time. The next characters define the time that the schedule was changed to. They are formatted as "nn:nn" and do not vary in the number of characters sent. Following the time characters are double-quote delimited text characters that represent the day that the schedule was set to in the alarm panel memory. Typically three characters are sent to indicate the day.

iqnn:nn"ccc

Possible String	Description	Notes
i	= Time/Day Sub-Message	Constant one character
q	= Qualifier	One character,o = Open Time,c = Close Time
nn:nn	= Time	Character string that indicates the time using a 24 hour clock, Ex. 05:00, PM is indicated by adding 12 to the hours,or 17:00
"	= Text Delimiter	Constant one character
ccc	= Day Text Information	Text characters to indicate day, Ex. MON = Monday, number of characters is variable - typically 3, see list below
\	= Field Delimiter	Constant one character

The list below describes the day text information:

SUN = Sunday	THU = Thursday	H-A = Holiday A
MON = Monday	FRI = Friday	H-B = Holiday B
TUE = Tuesday	SAT = Saturday	H-C = Holiday C
WED = Wednesday	HOL = Holiday	

2.3.8 Holiday Number Sub-Message

For the Report Message with event "g" (Holiday), a delimited Holiday Number Sub-Message is included in the Serial 3 string. The Holiday Number Sub-Message starts with a lower case "h" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the Holiday Number whose date was created or changed.

hqnn

String	Description	Notes
h	= Holiday Sub-Message	Constant one character
q	= Qualifier (Currently Space)	Constant one character
nn	= Holiday Number	Digits that indicate the holiday number, Ex. 20, number of characters is variable - typically 2
\	= Message Field Separator	Constant one character

2.3.9 Date Sub-Message

For the Report Message with event "g" (Holiday), a delimited Date Sub-Message is included in the Serial 3 string. The Date Sub-Message starts with a lower case "d" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Date Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the date to which the Holiday Number was changed. They are formatted as "nn-nn".

dqnn-nn

Possible String	Description	Notes
d	= Date Sub-Message	Constant one character
q	= Qualifier (Currently Space)	Constant one character
nn-nn	= Date	Character string that indicates the date , Ex. 12-25 (December 25)
\	= Field Delimiter	Constant one character

2.3.10 Equipment ID Sub-Message

For the Report Message with event "e" (Equipment), a delimited Equipment ID Sub-Message is included in the Serial 3 string. The Equipment ID Sub-Message starts with a lower case "g" and ends with a back-slash delimiter. The second character is a sub-message qualifier. Currently, no Equipment ID Sub-Message qualifiers have been defined. Therefore, this character will be sent as a space (HEX 20). The next characters define the Equipment ID. The number of characters may vary. No Equipment IDs have been defined by DMP. Equipment IDs are assigned by the dealer based on needs.

gqnnnnnn

Possible String	Description	Notes
g	= Equipment ID Sub-Message	Constant one character
q	= Qualifier (Currently Space)	Constant one character
nnnnnn	= Equipment ID Number	Digits that indicate the user defined equipment identification, Ex. 123456, number of characters is variable - typically six
\	= Field Delimiter	Constant one character

2.3.11 Service Code ID Sub-Message

For the Report Message with event "m" (Service Code), a delimited Service Code ID Sub-Message is included in the Serial 3 string. The Service Code ID Sub-Message starts with a lower case "s" and ends with a back-slash delimiter. Character 2 is a sub-message qualifier—(space), 'Y', or 'N'. (Space) indicates that the message was sent from the panel to the receiver without validation (XR200 panels). 'Y' indicates that the service code entered at the panel has been validated by the receiver, while 'N' indicates it is not valid. The next characters define the Service Code entered at the panel. The number of characters will be 5, range 00000 to 65535. No Service Code IDs have been defined by DMP. Service Code IDs are assigned by the dealer based on needs.

sqnnnnn

Possible String	Description	Notes
S	= Service Code ID Sub-Message	Constant one character
q	= Qualifier (Space, Y, or N)	Constant one character
nnnnn	= Service Code ID	5 Digits that indicate the service code entered at the panel. (range 00000 to 65535)
\	= Field Delimiter	Constant one character

2.3.12 Event Qualifier Sub-Message

A Serial 3 message sent as Fault can include an event qualifier field \e_"DT\ to indicate a dirty smoke detector.

A Serial 3 message sent as Closing can include an event qualifier field \e_"AC\ to indicate that all programmed areas of the system have now been armed.

eq"cc

Possible String	Description	Notes
e	= Qualifier Sub-Message	Constant one character
q	= Qualifier (Currently Space or e)	Constant one character
"	= Text Delimiter	Constant one character
cc	= Qualifier Text	Text characters to indicate - typically 2
\	= Field Delimiter	Constant one character

A Serial 3 Automatic Recall message (S07 or S88) sent to the receiver can include an event qualifier field \etnnn\ to provide a number of hours from 0001 to 1440 until the next recall message will be sent. This is sent by the XR500/XR100 operating with version 202 or higher.

A Serial 3 message sent as a Closing can include a Traffic Count event qualifier field \ecnnnnn\ to provide the number of zone trips in the area that occurred within the last disarmed period. The SCS-1R passes the field through and does not print or display this information.

eqn..n

Possible String	Description	Notes
e	= Qualifier Sub-Message	Constant one character
q	= Qualifier (Currently c)	Constant one character
nnnnnn	= Numeric Info (00000 - 65535)	Five characters
\	= Field Delimiter	Constant one character

2.4 Path Information Sub-Message

A Path Information Sub-Message is a field that can be appended to Serial 3 System Messages 72 WARNING: Network/Communication Path Trbl, 73 Network or Communication Path Restored, 07 Automatic Recall Test OK, or 88 Automatic Recall OK - Unrestored System. The Path Information Sub-Message starts with a lower case "c" and ends with a back-slash delimiter. A qualifier follows the sub-message and indicates this message is being communicated on the numeric path to follow for System Messages 07 and 88 **or** indicates that the Type Sub-Message S72 and S73 event occurred on the numeric path that follows. A two digit numeric path then follows to indicate the number of the path. The last character defines the path type hierarchy as either Primary or Backup.

sqpp"tr

String	Description	Values	Notes
s =	Path sub-message.	c	Constant one character
q =	Qualifier	_ (_ = space)	Constant one character and indicates that this message is being communicated on the numeric path that follows
		f	Constant one character and indicates that the Type Sub-Message event occurred on the numeric path that follows.
p =	Numeric path	01 - 08	Path number, typically two characters
t =	Communication type	N, D, C, L, R	Constant one character and indicates the communication type of the path N = Net, D = DD, C = CID, L = CELL, R = RS-232
r =	Path type	P, B	Constant one character and indicates the communication hierachy of the path P = Primary, B = Backup
\ =	Field Delimiter		

3 System Messages

NUM	System Message Name	Description
00	A.C. Power Restored	A.C. Power was restored to the panel. This message is a restoral for System Message 08.
01	Standby Battery Restored	The panel battery voltage has restored to greater than 12.6 VDC at the last battery test. This message is a restoral for System Message 09.
02	Communication Line Level Restored	The panel has detected that communication to the cellular tower has restored. This messages is only sent when Checkin is set to ADP3 in path communications of an XR500/XR100 using software version 202 or higher. The message is a restoral for System Message 10.
03	Panel Tamper Restored	The panel's built-in tamper circuit was restored to a normal condition. This message is a restoral for System Messages 11 and 74.
04	Backup Communication Line Restored	The panel's backup line of communication was restored. This message is a restoral for System Message 12.
05	Panel Ground Restored	The panel's built-in ground detection circuit was restored to normal. This message is a restoral for System Message 13.
06	System Not Armed by Scheduled Time	This message is transmitted 10 minutes after the closing time of the panel's internal schedule when the schedule is not extended or the panel is not armed within the 10 minutes. The keypad alerts the user that the system is not armed and allows them to extend the schedule. Panel programming provides an option to activate this message.
07	Automatic Recall Test OK	Automatic communication test typically sent every 24 hours. Some panels allow for variable time periods and defer operation. All combination fire/burg panels allow test to be deactivated. Also see System Messages 88 and 97.

System Messages Continued

NUM	System Message Name	Description
08	WARNING: A.C. Power Failure	Indicates main A.C. Power is not present or is less than 85% of normal. Message is sent after panel programmed delay time (15 seconds to 9 hours) has expired. The restoral message is System Message 00.
09	WARNING: Low Standby Battery	Indicates that standby battery has fallen below 11.9 VDC. Battery is tested at 15 minutes past each hour. The restoral message is System Message 01.
10	WARNING: Low Communication Line Level	The panel has detected that communication to the cellular tower was missing for more than 180 seconds. This messages is only sent when Checkin is set to ADP3 in path communications of an XR500/XR100 using software version 202 or higher. The restoral message is System Message 02.
11	WARNING: Panel Tamper	The panel has detected that while all areas were disarmed, the panel's built-in tamper circuit was placed in an open condition. The restoral message is System Message 03. Also, see System Message 74.
12	WARNING: Panel Backup Communication Fail	Indicates that the backup channel of communication has failed. This message is only transmitted on the main channel of communication when either of the following two events occur: (1) When HST or NET is programmed for main and a dialer is programmed for backup and the dialer line(s) fail to get a message transmitted in 10 attempts or (2) When HST or NET is programmed as backup and the message acknowledgment from the receiver is not received by the panel. The restoral message is System Message 04.
13	WARNING: Panel Ground Fault	The panel's built-in ground detection circuit was placed in an open condition. The restoral message is System Message 05.

System Messages Continued

NUM	System Message Name	Description
14	WARNING: Non-Alarm Message Overflow	The panel detected that many non-alarm messages occurred in an extremely short period of time and its communication buffer could not hold all of them. After the messages that the communication buffer could hold are sent, this message (System Message 14) is sent to indicate that some non-alarm messages were not transmitted and were not retained in panel memory. Examples of these kind of messages are openings, closings, schedule changes, and code changes. Also see System Messages 18, 40, 41, 42, and 44.
15	* * AMBUSH * *	The end-user has initiated a silent alarm because of an emergency situation. It occurs when the user enters the user code (PIN) assigned to user number position one. Panel programming allows for this message to be optional.
16	Not Sent PC Log	
17	Not Sent PC Log	
18	ALARM: Zone Alarm Overflow	The panel detected that many zone alarms occurred in an extremely short period of time and its communication buffer could not hold all of them. After the alarms that the communication buffer could hold are sent, this message (System Message 18) is sent to indicate that some zone alarm messages were not transmitted and were not retained in panel memory. Also, see System Messages 14, 40, 41, 42, and 44.
19	WARNING: New Panel on Line	The receiver is indicating that a new account has become active. This message is sent any time the panel's communication programming is setup for the first time or when a change is made in the communication programming. In addition, Serial 3 panels may append communication programming information.
20	Not Sent PC Log	
21	Not Sent PC Log	

System Messages Continued

NUM	System Message Name	Description
22	Not Sent PC Log	
23	Panel Test Signal Received	A manually operated communication test has been performed at the panel keypad.
24	Not Sent PC Log	
25	Not Sent PC Log	
26	WARNING: Auxiliary Fuse Trouble	The panel has detected that electrical power is unavailable for the auxiliary output circuit. The restoral message is System Message 27.
27	Auxiliary Fuse Restored	The panel has detected that electrical power is now available for the auxiliary output circuit. This message is a restoral for System Message 26.
28	WARNING: Telephone Line 1 Trouble	The panel detects that its main telephone connection is disconnected or is in a non-operable state. Also in the case where a Model 893 Dual Telephone Line module is attached, the panel detects that the supervised telephone line does not have sufficient voltage/current to support communications. The restoral message is System Message 29.
29	Telephone Line 1 Restore	The panel detects that its main telephone connection is now operational. This message is a restoral for System Message 28.
30	WARNING: Telephone Line 2 Trouble	The panel detects that the second telephone line attached to the Model 893 Dual Telephone Line module does not have sufficient voltage/current to support communications. The restoral message is System Message 31.
31	Telephone Line 2 Restored	The panel detects that the second telephone line attached to the Model 893 Dual Telephone Line module is now operational. This message is a restoral for System Message 30.

System Messages Continued

NUM	System Message Name	Description
32	ALARM: Supervised Wireless Interference	A wireless receiver connected to the panel has detected RF interference while the system was armed. The restoral message is System Message 89.
33	ALARM: Early Morning Ambush	At disarming, an end-user is indicating a silent alarm because of an emergency situation. This occurs when the end-user does not enter a second user code (PIN) or has not activated the appropriate input device within the programmed number of minutes after disarming. Panel programming allows for this message to be optional.
34	WARNING: Alarm Bell Silenced	The panel's main bell circuit was manually silenced by a code entry at a panel keypad.
35	Alarm Bell Returned to Normal	NOT IMPLEMENTED
36	Not Sent PC Log	
37	Not Sent PC Log	
38	WARNING: Bell Circuit Trouble	The panel's internal bell supervision circuit has detected an inappropriate bell circuit supervision voltage during standby operation. The restoral message is System Message 39.
39	Bell Circuit Restored	The panel's internal bell supervision circuit now detects the appropriate bell circuit supervision voltage during standby operation. This message is a restoral for System Message 38.
40	ALARM: Fire Zone Alarm Overflow	The panel detected that many fire type zone alarms occurred in an extremely short period of time and its communication buffer could not hold all of them. After the alarms that the communication buffer could hold are sent, this message (System Message 40) is sent to indicate that some fire type zone alarm messages were not transmitted and were not retained in panel memory. Also see System Messages 14, 18, 41, 42, and 44.

System Messages Continued

NUM	System Message Name	Description
41	ALARM: Panic Zone alarm Overflow	The panel detected that many panic type zone alarms occurred in an extremely short period of time and its communication buffer could not hold all of them. After the alarms that the communication buffer could hold are sent, this message (System Message 41) is sent to indicate that some panic type zone alarm messages were not transmitted and were not retained in panel memory. Also, see System Messages 14, 18, 40, 42, and 44.
42	ALARM: Burglary Zone Alarm Overflow	The panel detected that many burglary type zone alarms occurred in an extremely short period of time and its communication buffer could not hold all of them. After the alarms that the communication buffer could hold are sent, this message (System Message 42) is sent to indicate that some burglary type zone alarm messages were not transmitted and were not retained in panel memory. Also, see System Messages 14, 18, 40, 41, and 44.
43	WARNING: Bell Fuse Trouble	During standby operation, the panel's internal bell supervision circuit has detected that power is unavailable to operate the bell circuit. The restoral message is System Message 53.
44	WARNING: Fire-Burglary Trouble Overflow	The panel detected that many fire and burglary type zone troubles occurred in an extremely short period of time and its communication buffer could not hold all of them. After the troubles that the communication buffer could hold are sent, this message (System Message 44) is sent to indicate that some fire-burglary type zone troubles messages were not transmitted and were not retained in panel memory. Also, see System Message 14, System Message 18, System Message 40, System Message 41, and System Message 42.

System Messages Continued

NUM	System Message Name	Description
45	Abort Signal Received	After a burglary alarm occurred and before the panel's bell cutoff timer expired, a user code was entered at the panel keypad and the panel was disarmed. The intended use for this message is to signal the central station that the burglary alarm was aborted. This message is only sent if the programmable option in the panel is activated. For SIA CP-01 compliant panels, (XR500 version 109 or higher or XRSuper6/XR20/XR40 version 301 and higher), the Abort Signal is only sent before the alarm is transmitted.
46	Zone Swinger Automatically Bypassed	The panel automatically bypassed a zone because it tripped more times than the number found in Swinger Bypass of panel programming. The zone number is transmitted using an "X" message immediately after System Message 46. This message is activated based on panel programming for each zone. It is also completely deactivated when Swinger Bypass in panel programming is set to zero.
47	Zone Swinger Automatically Reset	After being automatically bypassed, the panel automatically reset a zone because it did not trip for one complete hour. This operation and message is a panel programmed option called RST SWYB found in System Options. The zone number is transmitted using a "Y" message immediately after System Message 47.
48	WARNING: Low Battery Cutoff-LAST MESSAGE	NOT IMPLEMENTED - The panel has detected that while A.C. Power is not present, the usable power available from the battery is low and proper panel operation will soon be inhibited.

System Messages Continued

NUM	System Message Name	Description
49	Cancel Signal Received	After a burglary alarm occurred and was sent to the receiver and before the panel's bell cutoff timer expired, a user code was entered at the panel keypad and the panel was disarmed. The intended use for this essage is to signal the central station that the burglary alarm was false. The Cancel Signal message is only sent from SIA CP-01 compliant panels (XR500 version 109 or higher or XRSuper6/XR20/XR40 version 301 and higher as of March 2005).
50	WARNING: Supervised Wireless Trouble	The panel has detected that an attached wireless receiver has stopped properly communicating with the panel, or the wireless receiver has detected RF interference while the system is disarmed. The restoral for this message is System Message 89.
51	WARNING: Remote Programming	An IP network panel has started a remote programming session using TCP protocol. This message allows the central station to be aware that a supervised account is being remote programmed for the case where the receiver may generate an System Message 16 Panel Not Responding.
52	Not Sent PC Log	
53	Bell Fuse Restored	During standby operation, the panel's internal bell supervision circuit has detected that power has been re-established for the operation of the bell circuit. This message is a restoral for System Message 43.
54	WARNING: Unsuccessful Remote Connect	The panel rejected an attempt by an SCS-1R or SCS-105 receiver to communicate in a remote session (upload/download). The possible reasons are: incorrect account number, incorrect receiver keys (passwords), or incorrect panel key (password).
55	Not Sent PC Log	
56	Not Sent PC Log	

System Messages Continued

NUM	System Message Name	Description
57	Not Sent PC Log	
58	Not Sent PC Log	
59	Not Sent PC Log	
60	Not Sent PC Log	
61	Not Sent PC Log	
62	Not Sent PC Log	
63	Not Sent PC Log	
64	Not Sent PC Log	
65	Not Sent PC Log	
66	System Test Begin	The panel has been placed in a mode for the walk test. Zones that are tripped will be reported as Zone Verify or Zone Fail for recording purposes. The Test End message is System Message 67.
67	System Test End	The panel has been removed from a walk test. This is a Test End message for System Message 66.
68	Not Sent PC Log	
69	Not Sent PC Log	
70	Not Sent PC Log	
71	Not Sent PC Log	

System Messages Continued

NUM	System Message Name	Description
72	WARNING: Network/Communication Path Trbl	The panel has not received a proper acknowledgment from the SCS-1R Receiver or the receiver (account 0) has detected a data network failure. This message is only transmitted if the panel is programmed for HST/NET network communication as either the main or backup communication. The restoral for this message is System Message 73. Note: For XR100/XR500 version 200 or higher, the System Message 72 definition is revised as follows: The panel has not received a proper acknowledgment from the receiver for a path of communication. This message can be sent for any path number (1-8) and any communication type (NET, DD, CID, CELL, 232). This message is sent on a backup path and includes a Path Information field to specify the path that failed to communicate. Please see Path Information Sub-Message. The restoral for this message is System Message 73.

System Messages Continued

NUM	System Message Name	Description
73	Network or Communication Path Restored	The panel has received a proper acknowledgment from the SCS-1R Receiver or the receiver (account 0) has detected a data network restore. This message is only transmitted if the panel is programmed for HST/NET network communication as either the main or backup communication. This message is a restoral for System Message 72. Note: For XR100/XR500 version 200 or higher, the System Message 73 definition is revised as follows: The panel has received a proper acknowledgment from the receiver for a previously failed path of communication. This message can be sent for any path number (1-8) and any communication type (NET, DD, CID, CELL, 232). This message is the restore for System Message 72 that contained the Path Information Sub-Message specifying the path that failed. Please see Path Information Sub-Message.
74	ALARM: Tamper During Armed State	The panel has detected that while any area is armed, the panel's built-in tamper circuit was placed in an open condition. The restoral message is System Message 03. Also, see System Message 11.
75	Not Sent PC Log	
76	Not Sent PC Log	
77	ALERT: Unauthorized Entry	The panel has detected that a low level user (Level 2) has disarmed an area outside of the panel's internally stored schedule. This message is not sent when the Level 2 user disarms an area inside of the panel's internally stored schedule.

System Messages Continued

NUM	System Message Name	Description
78	ALERT: System Recently Armed	The panel has detected that the alarm message that it just sent was generated within five minutes of the panel being armed. The intended use of this message is to inform the central station that the panel was just armed before the alarm occurred.
79	ALERT: Signal During Opened Period	The panel has just generated and sent a burglary alarm to the central station. It has also detected that this burglary alarm occurred during the normal open period of the panel's internal schedule.
80	ALERT: Exit Error	The panel has detected that an Exit type zone was open The panel has detected that an Exit type zone was open just after the expiration of the exit delay at arming (door left open). The alarm bell rings for 10 seconds and then the exit zone is force armed.
81	Not Sent PC Log	
82	Not Sent PC Log	
83	Remote Programming Complete	The panel has detected that a remote (upload/download) session has just been completed. In addition, Serial 3 panels may append communication programming information.
84	Remote Command Received	The panel has detected that during a remote (upload/download) session, it responded to a command such as arm/disarm, schedule change, etc.
85	Not Implemented	
86	WARNING: Local Programming	The panel has detected that an on-site panel programming session has just begun or has just been completed. In addition, Serial 3 panels may append communication programming information.
87	WARNING: Transmit Failed-Msgs Not Sent	The panel has detected that since its last valid communication, it made 10 attempts to call the receiver and these attempts failed. Those messages will not be sent to the receiver.

System Messages Continued

NUM	System Message Name	Description
88	Automatic Recall OK - Unrestored System	The panel has detected that one of its circuits has not restored to normal at the time the automatic communication test is performed. These possible circuits are: Zones, AC Power, Standby Battery, and Phone Lines. This message is to reinforce identification of troubles in fire systems. Also, see System Messages 07 and 97.
89	Supervised Wireless Restored	The panel has detected that an attached wireless receiver has re-established proper communication with the panel, or previously detected RF interference has cleared. This message is a restoral for System Message 32 or System Message 50.
90	Not Sent PC Log	
91	Service Requested	By use of a keypad command, a user is indicating the need for service on the alarm panel.
92	WARNING: No Arm/Disarm Activity	The panel has detected that areas have not been armed or disarmed in the programmed number of days. This may be an indication that the end-user has stopped using the alarm system.
93	ALARM: User Activity Not Detected	The panel has detected that zone open or short activity has not occurred at disarmed zones within the programmed number of hours. This message may indicate that an end-user is not moving within the premise.
94	ALERT: Activity Check Enabled	The end-user has manually enabled the Activity Check Feature. This feature indicates that activity on disarmed zones has not occurred within the programmed time period.
95	ALERT: Activity Check Disabled	The end-user has manually disabled the Activity Check Feature. This feature indicates that activity on disarmed zones has not occurred within the programmed time period.
96	ALARM: Verify Signal Received	After an alarm has occurred at the premise, a user on-site has entered a user code and manually activated an alarm verification message to the receiver as a verified response.

System Messages Continued

NUM	System Message Name	Description
97	Network Communication Test OK	The panel has sent a network communication test. This typically occurs every 24 hours. Some panels allow for variable time periods. All combination fire/burg panels allow test to be deactivated. Also see System Messages 07 and 88. In addition, Serial 3 panels may append communication programming information.
98	Not Sent PC Log	
99	Not Sent PC Log	
101	Device Missing	The panel is indicating that a device such as a zone expander on an LX-Bus is not responding to messages from the panel.
102	Device Restored	The panel is indicating that a device such as a zone expander on an LX-Bus has begun responding to messages from the panel after the panel reported a Device Missing. This message is a restoral for 101.
121	ALERT:Cell Data Communication Excessive	The panel has determined that the number of panel messages sent to the receiver in the last hour through a data cellular radio has exceeded 3000 total bytes of data. This message is sent once an hour until the data traffic rate is less than 3000 total bytes of data in the last hour or when the data traffic rate exceeds 6000 total bytes of data in the last hour. When the 6000 byte rate is incurred, data limits occur and System Message 122 is sent. The restore message is System Message 125. Note: 3000 bytes of data is approximately 20 messages such as burglar alarms or open/close messages.

System Messages Continued

NUM	System Message Name	Description
122	WARNING:Cell Data Non-Alarm Suppress	The panel has determined that the number of panel messages sent to the receiver in the last hour through a data cellular radio has exceeded 6000 bytes of data. Panel messages sent through the data cellular radio for each future hour are now limited to 1000 bytes of data for Fire alarm messages and 1000 bytes of data for non-Fire alarm messages such as Burglary or Panic. All other panel event messages are not attempted to be sent through the data cellular radio. This message is sent once an hour until the panel calculates that in the last hour the possible number of panel messages that should be sent through the data cellular radio is less than 3000 total bytes of data. Data limits are then removed. This message is only sent by the panel after the System Message 121 has been sent. The restore message is System Message 125. Note 1: Panel events are always stored in the panel display event buffer and can be retrieval using remote software. Note 2: 1000 bytes of data is approximately eight fire alarm messages. Note 3: 1000 bytes of data is approximately seven burglar alarm messages.

System Messages Continued

NUM	System Message Name	Description
123	ALARM:Cell Data Fire Alarm Suppress	This message is sent to the receiver only after System Message 122 has been sent. The panel is unable to send to the receiver additional Fire Alarm messages through a data cellular radio because 1000 bytes of data for Fire Alarm messages were already sent during this hour. At the end of this hour, the 1000 byte counter is reset and another 1000 bytes for Fire Alarm messages is available for the next hour. All data limits are removed when the panel calculates that in the last hour the possible number of panel messages that should be sent through the data cellular radio is less than 3000 total bytes of data. The restore message is System Message 125. Note: 1000 bytes of data is approximately eight fire alarm messages.
124	ALARM:Cell Data Non-Fire Alarm Suppress	This message is sent to the receiver only after System Message 122 has been sent. The panel is unable to send to the receiver additional non-Fire Alarm messages such as Burglary and Panic through a data cellular radio because 1000 bytes of data for non-Fire Alarm messages were already sent during this hour. At the end of this hour, the 1000 byte counter is reset and another 1000 bytes for non-Fire Alarm messages is available for the next hour. All data limits are removed when the panel calculates that in the last hour the possible number of panel messages that should be sent through the data cellular radio is less than 3000 total bytes of data. The restore message is System Message 125. Note: 1000 bytes of data is approximately seven burglar alarm messages.

System Messages Continued

NUM	System Message Name	Description
125	Cell Data Communication Fully Restored	The panel has determined that in the last hour the number of panel messages that are sent to the receiver or should be sent to the receiver through a data cellular radio was less than 3000 bytes of data. This message is the restore message for System Messages 121, 122, 123, 124 and is only sent once.
126	ALERT:Cell Rate Plan Exceeded	The panel has determined that in the last 30 days the number of messages sent to the receiver through the data cellular radio exceeded the kilobyte data rate plan established at the activation of the radio. This message is to provide an alert in an attempt to avert overage charges and could occur because of panel programming changes that affect the cellular data traffic rate.
130	WARNING: Cell Communicator Bus Failed	The communication on the bus between the panel and the cellular communicator has failed while no areas of the system were armed. This message may originate from both the panel and the cellular communicator as both monitor the bus. The restoral message is System Message 132.
131	ALARM: Cell Communicator Bus Failed	The communication on the bus between the panel and the cellular communicator has failed while any area of the system was armed. This message may originate from both the panel and the cellular communicator as both monitor the bus. The restoral message is System Message 132.
132	Cell Communicator Bus Restored	The communication on the bus between the panel and the cellular communicator has restored. Message is sent from the panel to the receiver and is a restoral for System Message 130 and System Message 131.

System Messages Continued

NUM	System Message Name	Description
133	WARNING: Cell Communicator DC Failed	The panel has received a message from the cellular communicator that its input DC voltage is missing or low. The cellular communicator is operating from its internal battery. The restoral message is System Message 134.
134	Cell Communicator DC Restored	The panel has received a message from the cellular communicator that its input DC voltage has restored. This message is a restoral for System Message 133.
135	WARNING: Cell Communicator Low Battery	The panel has received a message from the cellular communicator that the cellular communicator's standby battery is low or missing. The restoral message is System Message 136.
136	Cell Communicator Battery Restored	The panel has received a message from the cellular communicator that the cellular communicator's standby battery has restored. This message restores System Message 135.
137	WARNING: Cell Communicator Tamper	The panel has received a message from the cellular communicator that the cellular communicator's built-in tamper circuit was placed in an open condition while no areas of the system were armed. The restoral message is System Message 139.
138	ALARM: Cell Communicator Tamper	The panel has received a message from the cellular communicator that the cellular communicator's built-in tamper circuit was placed in an open condition while one or more areas of the system were armed. The restoral message is System Message 139.
139	Cell Communicator Tamper Restored	The panel has received a message from the cellular communicator that the cellular communicator's built-in tamper circuit was restored to a normal condition. This message is a restoral for System Messages 137 and 138.

4 Example Messages

All Serial 3 messages are shown with 3 digit zone and area numbers and 5 digit user numbers, However, these fields are variable length and can change depending on the panel sending the report. Each message is shown with sub-message fields in their typical order. However, the order of sub-messages is not fixed. It is recommended that the automation system be configured to find the appropriate sub-message needed regardless of the order of occurrence. This will allow future sub-messages to be added without the immediate need for automation system revision. A sub-message can be located by searching the characters that follow the delimiter "\" (HEX 5C) for the desired Sub-Message Character.

4.1 Serial 3 Zone Messages

```
Zone Alarm  1-12345 &65535Za\060\t "BL\z 001"EAST OFFICE DOOR\a 001"EAST WAREHOUSE  \ C_R
Zone Force                  b        FI                          ↑
Zone Low Battery            d        BU                       e_"DT\
Zone Fail                   f        SV            (qualifier for zone on Service)
Zone Missing                h        PN                          ↑
Zone Verify                 k        EM              u 00001"WILLIAM SMITH   \
Zone Restore                r        A1            (user added before area on Bypass and Reset)
Zone Trouble                t        A2
Zone Fault                  w
Zone Bypass                 x
Zone Reset                  y

Examples:
Burglary Alarm
1-12345 &65535Za\060\t "BU\z 001"EAST OFFICE DOOR\a 001"EAST WAREHOUSE \ C_R
Generic Alarm
1-12345 &65535Zr\060\t "BL\z 001"EAST OFFICE DOOR\a 001"EAST WAREHOUSE \ C_R
Fire Alarm
1-12345 &65535Za\037\t "FI\z 001"OFFICE SMOKE DET\ C_R
Service Message - Dirty Smoke Detector
1-12345 &65535Zw\043\t "FI\z 001"OFFICE SMOKE DET\e_"DT\ C_R
Burglary Zone Bypass by User
1-12345 &65535Zx\082\t "BU\z 001"EAST OFFICE DOOR\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \ C_R
Burglary Zone Reset from Bypass by User
1-12345 &65535Zy\082\t "BU\z 001"EAST OFFICE DOOR\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \ C_R
Burglary Zone Automatic Swinger Bypass by System
1-12345 &65535Zx\085\t "BU\z 001"EAST OFFICE DOOR\u 32765"SWINGER BYPASS \a 001"EAST WAREHOUSE \ C_R
```

4.2 Door Access Messages

```
Door Access        1-12345 &34567Zj\043\t "DA\v 001\u 00001"WILLIAM SMITH \ CR
Denied - Armed Area                        AA       ↑                        ↑
Denied - Invalid Area                      IA   "FRONT ENTRANCE              ↑
Denied - Invalid Time                      IT (may be included              ↑
Denied - Previous Access                   AP  w/device number)     us00002"BILL JONES        \
Denied - Invalid Code                      IC         (may be added for access denied on Two Man Rule)
Denied - Invalid User Level/Profile        IL

Examples:
Door Access
1-12345 &34567Zj\043\t "DA\v 001\u 00001"WILLIAM SMITH \ CR
Door Access with Device Name
1-12345 &34567Zj\059\t "DA\v 001"FRONT ENTRANCE \u 00001"WILLIAM SMITH \ CR
Access Denied with Device Name and Second User
1-12345 &34567Zj\080\t "AA\v 001"FRONT ENTRANCE \u 00001"WILLIAM SMITH \us00002"BILL JONES  \ CR
```

4.3 Schedule Change Messages

```
Permanent Sched   1-12345 &13233Zl\061\t "PE\io08:00"MON\ic02:30"TUE\u 00001"WILLIAM SMITH \ CR
Temporary Sched                           TE         TUE              ↑
Primary Sched                             PR         WED     a 001"EAST WAREHOUSE  \
Secondary Sched                           SE         THU (area may be included after time)
Shift 1 Sched                             S1         FRI
Shift 2 Sched                             S2         SAT
Shift 3 Sched                             S3         SUN
Shift 4 Sched                             S4         HOL
                                                     H-A
                                                     H-B
                                                     H-C
Examples:
Permanent Schedule Change by User
1-12345 &13233Zl\061\t "PE\io08:00"MON\ic02:30"TUE\u 00001"WILLIAM SMITH \ CR
Shift One Schedule Change by Area by User
1-12345 &13233Zl\083\t "S1\io08:00"MON\ic02:30"TUE\a 001"EAST WAREHOUSE \u 00001"WILLIAM SMITH \ CR
Shift Two Holiday Schedule Change by Area by User
1-12345 &13233Zl\083\t "S2\io08:00"HOL\ic02:30"HOL\a 001"EAST WAREHOUSE \u 00001"WILLIAM SMITH \ CR
Secondary Holiday Schedule Change by User
1-12345 &13233Zl\061\t "SE\io08:00"HOL\ic02:30"HOL\u 00001"WILLIAM SMITH \ CR
Shift Four Holiday A Schedule Change by Area by User
1-12345 &13233Zl\083\t "S4\io08:00"H-A\ic02:30"H-A\a 001"EAST WAREHOUSE \u 00001"WILLIAM SMITH \ CR
```

4.4 Opening/Closing Messages

```
Opening Report     1-12345 &  321Zq\059\t "OP\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \ CR
Closing Report                            CL                                                ↑
Late to Close                             LA                                        us00002"BILL JONES
                                                                        (2nd user may be included after
                                                                              (2 Man Rule, OP only)
                                                                                          ↑
                                                                                      e "AC\
                                                                                (all armed qualifier)
                                                                                   (may be included)
                                                                                          ↑
                                                                                     ec12345\
                                                                                (traffic count qualifier)
                                                                                   (may be included)

Examples:
Area Open by User
1-12345 &  321Zq\059\t "OP\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \ CR
Area Open Using Two Man Rule Operation
1-12345 &  321Zq\080\t "OP\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \us00002"BILL JONES \ CR
Area Close by Automatic Arming
1-12345 &  321Zq\059\t "CL\u 32766"SCHEDULE      \a 001"EAST WAREHOUSE \ CR
Area Close by Service User
1-12345 &  321Zq\059\t "CL\u 32767"SERVICE USER  \a 001"EAST WAREHOUSE \ CR
Area Close by Remote Access User
1-12345 &  321Zq\059\t "CL\u 32764"REMOTE USER   \a 001"EAST WAREHOUSE \ CR
Area Close with All Areas Armed Qualifier
1-12345 &  321Zq\065\t "CL\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \e "AC\ CR
Area Close with Traffic Count Qualifier
1-12345 &  321Zq\067\t "CL\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \ec12345\ CR
```

4.5 User Code Messages

```
User Code Added    1-12345 &    1Zu\062\t "AD\um00002"BILL JONES    \u 00001"WILLIAM SMITH   \ CR
User Code Changed                         CH
User Code Deleted                         DE

Examples:
User Code Added by User
1-12345 &    1Zu\062\t "AD\um00002"BILL JONES    \u 00001"WILLIAM SMITH   \ CR
User Code Changed by User
1-12345 &    1Zu\062\t "CH\um00002"BILL JONES    \u 00001"WILLIAM SMITH   \ CR
User Code Deleted by User
1-12345 &    1Zu\062\t "DE\um00002"BILL JONES    \u 00001"WILLIAM SMITH   \ CR
```

4.6 Holiday Date Change Messages

```
Holiday Date       1-12345 &    0Zg\046\h 20\d 12-25\u 00001"WILLIAM SMITH   \ CR
                                          ↑
                                    t "HA\
                   (Holiday A,B,C type sub-message may be included)
Examples:
Holiday Date Change by User
1-12345 &    0Zg\046\h 20\d 12-25\u 00001"WILLIAM SMITH   \ CR
Holiday B of Holiday 20 Date Change by User
1-12345 &    0Zg\052\t "HB\h 20\d 12-25\u 00001"WILLIAM SMITH   \ CR
```

4.7 Equipment Messages

```
Equip Repaired     1-12345 & 1324Ze\023\t "RP\q 123456\ CR
Equip Replaced                             RL
Equip Added                                AD
Equip Removed                              RM
Equip Adjusted                             AJ
Equip Test                                 TS
```

4.8 Service Code Messages

```
Service Code Start 1-12345 &    5Zm\022\t "ST\sY12345\ CR
Service Code Stop                          SP
```

4.9 Other System Messages

```
Gen System Msg     1-12345 & 1002Zs\013\t 01\CR
                                          ↑
                                   pn"78YY05015030YY\
                      (Net Programming Info Added To t 19, t 83, t 86, t 97 )
                                    (may be included)
                                          ↑
                                   c 01"NP\
                      (Path Info Appended To t 07, t 88)
                                    (may be included)
                                          ↑
                                   cf07"LB\
                      (Path Info Appended To t 72, t 73)
                                    (may be included)
                                          ↑
                                   et0024\
                      (# of Hours Until Next Recall Appended To t 07, t 88)
                                    (may be included)

Gen System Msg w/user     1-12345 & 1002Zs\038\t 66\u 00001"WILLIAM SMITH   \CR
                                                                    ↑
                                                                tz"BUPNFI\
                                                          (Type Sub-Message with zone types)
                                                        (may be included for "t 66" or "t 67")


Device Sys Msg     1-12345 & 1002Zs\020\t 101\v 100\CR

Abort Sys Msg      1-12345 & 1002Zs\039\t 150\u 00001"WILLIAM SMITH   \CR
```

4.10 Device Status Messages

```
Door Open          1-12345 &  112Zc\020\t "DO\v 016\CR
Door Closed                               DC z 999
Door Held Open                            HO
Door Forced Open                          FO
Output On                                 ON
Output Off                                OF
Output Pulse                              PL
```