



Host Communication Specification

SCS-1R Receiver Using SCS-150 Processor Version 103
(1/28/13)
or SCS-VR Version 1.4.0 (12/14/15)

LT-0872.pdf (Oct 10, 2016)



<http://buy.dmp.com/dmp/products/documents/LT-0872.pdf>

note: A previously published version of this document contained a document revision number ("Version 104, LT-0872") that did not coincide with the SCS-150 processor software version. The cover page of this document has been updated to reflect the newest version of the SCS-150 processor and the publication date of the accompanying document (LT-0872.pdf).

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1 Host Communication

1.1 Overview

The DMP SCS-1R Receiver provides one output to a Host Automation Computer for panel messages. This output may be configured to report over RS-232 or a network connection.

1.2 Scope

This document describes the host output for the SCS-150 103 (1/28/2013) for panels listed in the "Serial 3 Alarm Panels" section below. The information also applies to SCS-VR 1.4.0 (12/14/15). This document only describes the host output, it does not describe the communication from panel to receiver.

note: Panels send some information in serial 3 format that are only used by the receiver; never sent to host automation. Receivers generate some messages in serial 3 format that are only sent to host automation, not to the panel.

1.3 Serial 3 Alarm Panels

The following is a list of panels that can report in Serial 3 protocol.

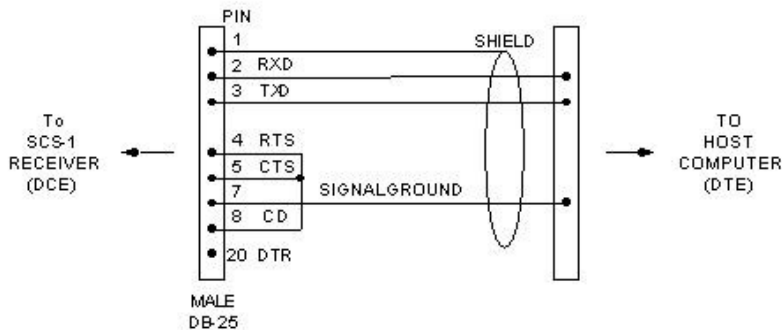
XR Panels	XR500 Hardware Family	XT30 Hardware Family
XR200 Version 102 or higher	XR100, XR100N	XT30
XR20 Version 201 or higher	XR500, XR500N, XR500E	XT50
XR40		XTL, XTLN, XTLN-WiFi, XTLP
XRSuper6	XR550 Hardware Family	CellComSL, iComSL
XR200-485	XR150	
XR2400F	XR350	
XR2500F	XR550	

2 Hardware Specifications

The SCS-1R Receiver supplies three output ports arranged vertically on the rear of the unit: Auxiliary, Host Output and Activity Log.

The Host Output is standard RS-232 at 300, 600, 1200, 2400, 4800, 9600, 19,200 or 38,400 baud, 8 bits per character with no parity (Not Adjustable), and one stop bit. The cable connections used are shown below.

SCS-1R Receiver Host Cable



The SCS-150 Receiver Processor Board also supplies host automation output messages over network through it's on-board network connector.

The SCS-1R Receiver does not require any hardware or software handshaking signals from a Host Automation Computer. The SCS-1R Receiver is full duplex and prepared to send and receive signals to and from the Host Automation Computer at any time.

3 Communications Overview

A report is sent to the Host Automation Computer immediately after it is received from a DMP alarm panel in the field. The SCS-1R Receiver report is made up of three parts: Report Header, Report Message, and Termination Character. The Report Header is made of supplementary information described in section 5. Starting with the SCS-1R Receiver with an SCS-150, the Report Message from the alarm panel is formatted as a DMP Serial 3 message, regardless of whether the alarm panel that transmitted the report sent the report in Serial 1 or Serial 3 format. In other words, all Serial 1 messages received by the SCS-1R with an SCS-150 are converted to Serial 3 format and no provision is made to convert Serial 3 messages back to Serial 1 format. The DMP Serial 3 message format is described in section 7. **The SCS-1R Receiver report termination character is always CR (HEX 0D).** For normal operation, after each report is sent, the SCS-1R Receiver must receive an ASCII acknowledgment

from the Host Automation Computer (See section 4).

This format is used for the RS-232 or the Network output to the Host Automation Computer.

4 Host Automation Acknowledgment

After each report is sent by the SCS-1R Receiver and then correctly interpreted by the Host Automation Computer, the Host Automation Computer must respond with ACK, CR (HEX 06, 0D) or ACK (HEX 06). If the report cannot be interpreted, the Host Automation Computer may respond with NAK, CR (HEX 15, 0D) or NAK (HEX 15).

Upon receiving NAK, the SCS-1R Receiver repeats the report. It repeats the same report when receiving NAKs, typically five times. At that point the SCS-1R Receiver displays "AUTOMATION NOT RESPONDING" on the Membrane Keypad LCD and it begins demanding manual operator acknowledgment for incoming emergency messages. See LT-0717 SCS-1R Operators Guide for the selectable number of SCS-1R Receiver report attempts to the Host Automation Computer before a Host Failure Message is displayed.

If the SCS-1R Receiver does not receive either ACK or NAK within a selectable time, typically five seconds, it will try the report again. If it does not get a response from the Host Automation Computer after the selectable number of attempts, typically five, it will display a Host Failure Message on the Membrane Keypad LCD and again begin demanding manual operator acknowledgment. See See LT-0717 SCS-1R Operators Guide for the selectable time period without acknowledgment before an SCS-1R Receiver report is repeated to the Host Automation Computer.

While in the Host Failure Mode, the SCS-1R will try each new report once. After a report has been attempted without success, it will be deleted from memory and the SCS-1R Receiver will attempt to send the next report. When communication is restored with the Host Automation Computer, the display will be automatically cleared of the last manually acknowledged alarm message and revert back to acknowledgment by the Host Automation Computer. Host Failure and Restoral reports are always logged on the local activity printer of the SCS-1R Receiver.

4.1 Receiver/Panel Time Updates

The SCS-1R time, day, and date can be set from the host automation computer by sending the following string from the host automation computer to the SCS-1R.

!Dhhmssnnddyw^C_R

!D = Time Send Command

hh = Hours (01 - 12 am, 01 - 12 pm)

mm = Minutes (00 - 59)

ss = Seconds (00 - 59)

nn = Month (01 - 12)

dd = Day (01 - 31)

yy = Year (00 - 99)

w = Day of Week (1 - 7, 1 = Sunday)

CR = Carriage return, Hex 0D

SCS-1R ACK is **+^C_R** (plus, space, carriage return) as an acknowledgment when the time update message was properly received.

SCS-1R NAK is **-^C_R** (minus, space, "TIME", carriage return) as a non-acknowledgement when the time update was formatted correctly but was received with out-of-range characters. Resend time update.

SCS-1R NAK is **-<ccc...ccc>^C_R** (minus, space, "characters received by SCS-1R", carriage return) as a non-acknowledgement when the time update was not properly formatted when received. Resend time update.

It is highly recommended that the receiver time be updated by the host automation computer at the following events:

1. The "System Start Up" message is sent by the receiver to host automation computer
2. The host automation computer time, day, or date is reset
3. Once daily at 2:30AM

The 2:30AM daily time update is important since the SCS-1R will set the time, day, and date in DMP control panels. DMP control panels will begin asking for a time update between 3:00AM and 5:00AM daily. If the SCS-1R gets a time update from the host automation computer at least every 25 hours and the UPDATE TIME TO PANELS option is programmed Yes in the HOST TIME TO PANEL option, the SCS-1R will give time updates to control panels.

Note: The time update characters shown above are the only characters that will be accepted by the SCS-1R receiver. GMT characters must not be included in the time update.

4.2 Receiver Supervision Check Message

The SCS-1R receiver sends a supervision message at a periodic rate to verify communication between the receiver and the Host Automation Computer. The periodic rate is based on receiver programming in Host

Configuration and is default set to one minute. The account number is always zero. The message is "S99". The format if this message is:

```
r-    0 S99
r = receiver number 1 - 9
```

5 SCS-1R Receiver Report Header

The Report Header is made up of special characters that may be inserted before the message. The information and number of characters that make up the Header is based on the SCS-1R Receiver programming. **Once programmed, the length of the Report Header does not change.** The Report Header always ends with a space character (HEX 20).

5.1 Start Character

In SCS-1R Receiver programming, a Start Character can be added as the first character in the Report Header. It can be programmed to NONE, 01 - 12 or 14 - 31.

5.2 CRC-16 Error Checking

In SCS-1R Receiver programming, a four character (hexadecimal ASCII encoded CRC-16) CRC Error Check calculation can be enabled in the Report Header.

5.3 Sequence Number

In SCS-1R Receiver programming, a two character report Sequence Number, 01 - 99, can be enabled in the Report Header.

5.4 Line Number Length

In SCS-1R Receiver programming, the Line Number Length can be set to 0, 1 or 2.

If length is set to 0, a single character, a dash is sent.

If length is set to 1, one character is sent for the card number (0 - 9).

If length is set to 2, two characters are sent. The first character is the card number, the second is the line number (0 - 4). For SCS-101 cards, line number is always 1. For SCS-104, line 0 is the network connection, lines 1 - 4 correspond to dialer lines 1 - 4.

Example: Card number 5 would be sent to host as a dash (-) with a line number length of zero, as 5 with a line number length of 1, and as 5y with a line number length of 2 (For SCS-100 cards, y = 1. For SCS-101 cards, y = 0. For SCS-104 cards, y = 0 - 4 depending on the line number.)

5.5 Account Number

Five digits represent the panel account number. If the account number is less than 5 digits, it is right aligned and prepended with spaces (20_{hex}).

5.6 Report Header Examples

Three examples of a Report Header and the associated SCS-1R Receiver Host Configuration programming follow:

Example 1: (Factory Default)

Rec. No.	Dash Char.	Acct. No.	Space Char.		Start Character	=	NONE
1	-	54321		<--- Example header	CRC	=	No
1	2	34567	8	<--- Character position	Sequence Number	=	No
					Line Number Length	=	0

Example 2:

CRC Char.	Rec. No.	Dash Char.	Acct. No.	Space Char.		Start Character	=	NONE
75CF	1	5	675		<--- Example header	CRC	=	Yes
1234	5	6	78901	2	<--- Character position	Sequence Number	=	No
						Line Number Length	=	1

Example 3:

Start Char.	CRC Char.	Seq. No.	Rec. No.	Card No.	Line No.	Acct. No.	Space Char.		Start Character	=	01
									CRC	=	Yes
01	75CF	43	1	5	0	4890		<--- Example header	Sequence Number	=	Yes
12	3456	78	9	0	1	23456	7	<--- Character position	Line Number Length	=	2

6 SCS-1R Report Message

Starting in the next character position after the Report Header ends, the Report Message begins. This portion of the report defines the actual event that has occurred at the panel. This can be a zone alarm, zone trouble, opening, closing, system event, etc. Typically the event is received by the SCS-1R Receiver at the same time the event occurred at the panel.

However, older DMP alarm panels have the ability to store Non-Immediate messages in their memory for digital dialer transmission at a later time i.e., opening, closing, schedule change, etc. This allows several messages to be accumulated over time. Then all can be transmitted to the central station on one phone call. This call may take place at the daily or weekly recall test, during an alarm transmission or when the alarm panel memory is full. **This feature greatly reduces long distance toll costs for central stations.**

The Report Message portion of a report may or may not be prefaced with a Minutes Ago Insert. The Minutes Ago Insert is sent by a panel if it is programmed to delay non-immediate messages (see section 6.1 for details). Only messages sent through the dialer can contain a minutes ago insert.

6.1 & Minutes Ago Insert

Since a single telephone call from an alarm panel may contain messages which occurred at different times, some means must be provided to indicate the time and date of occurrence. Any message which contains a delayed event, will be preceded by a Minutes ago string. The string begins with a "&" (HEX 26) character, is the first character following the Report Header, and is six characters in length.

Event	Minutes Ago		
&	42508	<--- Example message	This example illustrates that
1	23456	<--- Character position	the message that follows the Minutes Ago string 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 = 00001 - 65535 (right justified, zero 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.

From a non-Canadian panel dialer, the minutes ago string will never appear with the following immediate messages.			
Zone Alarm	A, za, Za	Zone Verify	K, zk, Zk
Zone Trouble	T, zt, Zt	Zone Fail	F, zf, Zf
Zone Restore	R, zr, Zr	Zone Force Arm	B, zb, Zb
Zone Bypass	X, zx, Zx	Service Man	M, Zm
Zone Reset	Y, zy, Zy	Late to Close	L, Zq (type LA)
Equipment	E, e, Ze	System Alarm, Trouble,	S, s, Zs

From a non-Canadian panel dialer, the minutes ago string may appear with the following non-immediate messages.			
Door Access	J, Zj	Primary Schedule	i, Zl (type PR)
Armed	C, Zq (type CL)	Secondary Schedule	n, Zl (type SE)
Disarmed	O, Zq (type OP)	Code Number Addition	P, Zu (type AD)
Permanent Schedule	N, Zl (type PE)	Code Number Deletion	p, Zu (type DE)
Temporary Schedule	I, Zl (type TE)	Code Number Change	U, Zu (type CH)

Note: PC Log reports (network, cellular, or serial 232) from a panel to a PC always contain the minutes ago string for all messages.

Note: From a Canadian panel dialer, the minutes ago string insert will appear with all messages.

6.2 Serial 3 Overview

The Serial 3 message format (see section 7) is introduced with the implementation of the SCS-1R Receiver, the SCS-105 Receiver version 208, and the XR200 Alarm Panel version 102 firmware upgrades. Starting with the SCS-1R Receiver with an SCS-150, the Serial 3 message format is used exclusively. Any alarm panel messages sent to the SCS-1R with an SCS-150 are converted to Serial 3 format and no provision is made to convert Serial 3 messages back to Serial 1 format. Serial 3 allows 16 character user names to be sent to the Host Automation Computer. Additionally, the design of the Serial 3 format provides for the addition of new information in later upgrades **without the need to immediately** upgrade the SCS-1R Receiver or the Host Automation Computer software.

The Serial 3 message format is **BASED ON VARIABLE POSITION AND VARIABLE LENGTH** messages. The fields of the message are delimited by a Back-Slash "\" (HEX 5C) and within the fields, numeric and text information are delimited with a Double-Quote " (HEX 22).

Serial 3 messages are constructed to allow the Host Automation Computer software to scan through the string using the field delimiter "\" as a field start/stop identifier detecting the fields that are needed for the already identified event and to discard other information that is not currently recognized. **Also, within a field, numeric or text characters may be included or not included. A text delimiter (double-quote) is inserted just before text characters are sent to identify that text characters are included.** This allows future DMP upgrades to be implemented in the field without an immediate SCS-1R Receiver upgrade or Host Automation Computer upgrade. As time permits, the Host Automation Company will implement the new information to allow continued and profitable industry leading data processing.

6.3 System Start-up Message

The system start-up message is transmitted each time A.C. power is removed and reapplied to the SCS-1R Receiver or when the reset button is pressed. Like other messages, it follows in the next character position after the Report Header with one exception. The five digit account number is always five space characters. It is 26 characters in length and is illustrated below:

Star Char.	Space Char.	Star Char.	Space Char.	Six Char.	Space Char.	Six Char.	Space Char.	Two Char.	Space Char.	Star Char.	Star Char.	Three Char.	
*	~	*	~	SYSTEM	~	START	~	UP	~	*	*	~~~	<--- Example message
1	2	3	4	567890	1	23456	7	89	0	1	2	345	<--- Character position
_____ * _ * SYSTEM START UP * _ *				26		characters							

6.4 Termination Character

All reports sent to the Host Automation Computer end with a carriage return (HEX 0D). All Serial 3 reports do not contain an extra space before the carriage return. The symbol C_R is used in this document to indicate a carriage return.

7 Serial 3 Message Format

The SCS-1R Receiver with an SCS-150 processor board sends all messages to host automation in Serial 3 format. 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 (fields) are 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 Serial 3 message always is an upper case "Z". 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\
```

7.1 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*\

Any message received with a character that is not listed in the Message Event Definition Table below is considered an "Undefined Message". The information contained in the undefined message is passed through to the two output ports (Host Automation output and local Activity Log printer) as received. The "z" character is reserved.

All of the possible delimited fields that provide detail information for a message event are described in sections 7.2 to 7.18 and are shown in the columns of the chart below. All possible message events are shown in the rows. Numbers shown at the column/row intersect, mean that the delimited field appears in the Serial 3 message for that event. The numbers value, describe the typical but not specific position in the Serial 3 message string.

It is strongly recommended that the automation system scan the Serial 3 string for the specific fields desired and ignore portions of the message that are not needed. The field 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.

Message Event Definitions Table																			
			Field Identifier Characters																
			t	z	a	u	v	i	h	d	g	s	e	u	p	c	n	b	n
Section	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	7.10	7.11	7.12	7.13	7.6	7.14	7.15	7.16	7.17	7.18
Event Description	Message Event Definition	Message Length	Type	Zone	Area	User Codes	Device	Time/Day	Holiday Number	Date	Equipment ID	Service Code ID	Event Qualifier	User Codes	Programming Info	Path Info	Call Info	Signal Strength	Schedule Name
Zone Alarm (Za)	1	2	3	4	5*		7>						6%				8		
Zone Force (Zb)	1	2	3	4	5	6							7%				8		
Zone Low Battery (Zd)	1	2	3	4	5*								6%				7		
Zone Fail (Zf)	1	2	3	4									5%				6		
Zone Missing (Zh)	1	2	3	4	5*								6%				7		
Zone Verify (Zk)	1	2	3	4									5%				6		
Zone Restore (Zr)	1	2	3	4	5*								6%				7		
Zone Trouble (Zt)	1	2	3	4	5*								6%				7		
Zone Fault (Zw)	1	2	3	4	5*								6\$%				7		
Zone Bypass (Zx)	1	2	3	4	6*	5							7%				8		
Zone Reset (Zy)	1	2	3	4	6*	5							7%				8		
Door Access (Zj)	1	2	3			5	4						7%	6@			8		
Schedules (Zl)	1	2	3			6		5^					7%				8		4
Arming Status (Zq)	1	2	3		5	4							7!%	6@			8		
User Codes (Zu)	1	2	3			4#							5%				6		
Holidays (Zg)	1	2	3&			6			4	5			7%				8		
Equipment (Ze)	1	2	3								4		5%	6<			7		
Service Code (Zm)	1	2	3									4	5%				6		
System Message (Zs)	1	2	3			5	4						8%~		6	7	9	10	
Device Status (Zc) [1]	1	2	3	4		6													
Zone Tamper (Zi) [2]	1	2	3	4	5*														
Reserved (Zz)																			

Notes

1. Device Status is not sent to Host Automation and is only sent via PC Log reports and Entré connection.
2. Firmware version 600 and greater panels send Zone Tamper (Zi) for an Alarm or Trouble on an open circuit

Table symbols	Meaning
*	Not sent for EM (Emergency), PN (Panic), and SV (Supervisory) type zones.
^	Time/Day Information sent twice with different qualifiers.
#	User info sent twice w/different qualifiers.
\$	Added field indicates smoke detector dirty.
@	2nd User info sent for Two Man Rule Area opening and access denied.
&	Holiday A, B, C included for XR200-485 firmware version 200 or higher.
!	Added field indicates all areas are now armed and could include qualifier for Traffic Count.
%	Can include sequence number qualifier.
~	Can include number of hours to next recall qualifier if S07 or S88.
<	Can include a device number to indicate a receiver line card number.
>	Keypad panic button alarms include the device number & name field for XR100/XR500 Version 205 and higher.

7.2 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 (see section 6.4). For example: 061\ indicates the message is 61 characters in length including the termination character.

note: Non-printable characters count in the length. For example, names may be terminated with a record separator (0x1E).

7.3 Type Field

The Type Field contains numeric or text characters that provide information for the type of event that has occurred. The field always starts with a lower case "t" and ends with a back-slash delimiter. The second character is a field qualifier. A Serial 3 message sent as a System Test Begin or End (S66 or S67) can include an event qualifier "z" to indicate that the following string of zone types are included in the test. If "z" is not sent, 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 tqnnn\	or	Text tq"cc\"	or	Text with "z" qualifier tq"aabccc...\
--------------------------	----	------------------------	----	---

The lists below describe the various types for the events.

Zone Type BL = Blank FI = Fire BU = Burglary SV = Supervisory PN = Panic EM = Emergency A1 = Auxiliary 1 A2 = Auxiliary 2	Arming Type OP = Area Disarmed CL = Area Armed LA = Area Late to Arm	User Code Type AD = User Code Added CH = User Code Changed DE = User Code Deleted IN = User Code Inactive
Access Type DA = Door Access Granted AA = Denied: Armed Area IA = Denied: Invalid Area IT = Denied: Invalid Time AP = Denied: Previous Access IC = Denied: Invalid Code IL = Denied: Invalid Level WP = Denied: Wrong PIN	Schedule Type/Number PE = Permanent Schedule TE = Temporary Schedule PR = Primary Schedule SE = Secondary Schedule S1 = Shift One S2 = Shift Two S3 = Shift Three S4 = Shift Four 00-99 = Numeric, XR150/350/550	Service User Type ST = Start Service User SP = Stop Service User
Status Type (Not Sent to Host Automation - Only sent via PC Log reports and the Entre Connection) 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 MO = Output Status: Momentary		
Equipment Type RP = Repair RL = Replace AD = Add	System Message Type 00 - 999 = See Serial 3 System Messages	

RM = Remove
 AJ = Adjust
 TS = Test
 SO = Receiver EEPROM Error - System Options
 PR = Receiver EEPROM Error - Printer
 LC = Receiver EEPROM Error - Line Card
 H1 = Receiver EEPROM Error - Host Port
 H2 = Receiver EEPROM Error - Host Port
 SP = Receiver EEPROM Error - Serial Port
 LG = Receiver EEPROM Error - Log
 EE = Receiver EEPROM Error - Entire EEPROM
 CD = ContactID

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

7.4 Zone Field

For Report Messages with Events a, b, d, f, h, k, r, t, w, x, and y, a delimited Zone Field is included in the Serial 3 string. The Zone Field starts with a lower case 'z' and ends with a back-slash delimiter. The second character is a qualifier. Currently, no Zone Field 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 **will be 16, but XR100/XR500 Version 205 panels and greater can vary the number sent from 1 to 32**. When the Zone Field references a key fob, the user name assigned to the key fob is included after the text delimiter (") rather than the zone name.

zqnn"cccccc...(variable)...ccccccc\

Possible String	Description	Notes
z	Zone Field Identifier	Constant one character
q	Qualifier (Currently Space)	Constant one character
n	Zone Number	Digits to indicate zone number, Ex. = 008, number of characters is variable - typically three
"	Text Delimiter	Constant one character
c	Zone Name Text	Text characters to indicate zone name, Ex. = FRONT DOOR, number of characters is variable - from 1 to 32
\	Field Delimiter	Constant one character

NOTES:

- The Zone Field is also used to indicate a wireless keypad trouble, which is reported as an Auxiliary 1 zone type and includes the device name stored in panel memory.
 - XT Panels report zones 202 - 208 to represent wireless keypad device numbers 2 - 8, respectively.
 - XR Panels report zone numbers 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160 to represent wireless keypad devices numbers 2 - 16.
 - Wireless keypad troubles may be:
 - Zd-Zone Low Battery
 - Zh-Zone Missing
 - Zw-Zone Fault (input power)
 - Zt-Zone Trouble (tamper)
 - Zr-Restoral (tamper)
- Panic, Emergency and Fire report on zones 19, 29 and 39, respectively.
- For firmware version 600 and greater panels, the Zone Field is also used to indicate a wired keypad trouble, which is reported as a Auxiliary 1 zone type and includes the device name stored in panel memory.
 - XT Panels report zones 301 - 308 to represent wired keypad device numbers 1 - 8, respectively.
 - XR Panels report zone numbers 15, 25, 35, 45, 55, 65, 75, 85, 95, 105, 115, 125, 135, 145, 155, 165 to represent wired keypad devices numbers 1 - 16.
 - Wired keypad troubles may be:
 - Zh-Zone Missing
 - Zt-Zone Trouble (tamper)
 - Zr-Restoral (tamper)

7.5 Area Field

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 Field is included in the Serial 3 string. The Area Field starts with a lower case "a" and ends with a back-slash delimiter. The second character is a field qualifier. Currently, no Area Field 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 **will be 16 but XR100/XR500 Version 205 panels can vary the number sent from 1 to 32.**

```
aqnnn"cccccc...(variable)...ccccccc\
```

Possible String	Description	Notes
a	= Area Field Identifier	Constant one character
q	= Qualifier (Currently Space)	Constant one character
n	= Area Number	Digits to indicate area number, Ex. = 008, number of characters is variable - typically three
"	= Text Delimiter	Constant one character
c	= Area Name Text	Text characters to indicate area name, Ex. = OFFICE, number of characters is variable - from 1 to 32
\	= Field Delimiter	Constant one character

7.6 User Code Field

For report messages with events b, x, y, q, u, j, l, and g, a delimited User Code Field is included in the Serial 3 string. Some system "s" event messages such as S45 Abort, S49 Cancel, and S96 Alarm Verified can also include the User Code Field. The User Code Field starts with a lower case "u" and ends with a back-slash delimiter. The second character is a field qualifier. Currently, three User Code Field qualifiers have been defined. They are: "m" indicates that this user was acted upon such as added, deleted, or changed; " " (space) indicates that this user performed the action of adding, deleting, or changing a user; and "s" indicates that this user was the second user for a two-man area disarming, door access granted, or door access denied. The next characters define the user number and they may vary in the number of characters sent. When a user name is included, following the user number will be double-quote delimited text characters that represent the user name stored in the alarm panel memory. Typically, the number of text characters sent **will be 16 but XR100/XR500 Version 205 panels can vary the number sent from 3 to 32.**

```
uqnnnnn"cccccc...(variable)...ccccccc\
```

Possible String	Description	Notes
u	= User Code Field Identifier	Constant one character
q	= Qualifier	One character, ~ (space) = user who performed action m = user acted upon a = panel audit, no "user who performed action" will be included s = second user required to open area and access denied (Two Man Rule)
n	= User Number	Digits to indicate user number, Ex. = 00001, number of characters is variable - typically five
"	= Text Delimiter	Constant one character
c	= User Name	Text characters to indicate user name, Ex. = JOHN SMITH, number of characters is variable - from 3 to 32
\	= Field Delimiter	Constant one character

Four special user numbers may be sent in a User Code Field. They are:

```
32767 = Service User
32766 = Alarm Panel Schedule
32765 = Alarm Panel Swinger Bypass of a Zone
32764 = Remote Command from DMP Remote Access Uploader/Downloader
```

note: When a firmware version 600 and greater panels automatically disarms any area at the end of the Exit Delay, User Code 0 is sent as the user who performed the disarm.

7.7 Device Field

A Device is:

- An address on the alarm panel keypad or LX-Bus where a keypad or zone expander resides.
- Where door access equipment may be installed.
- A receiver line card with an error.

For the Report Message with event "j" and the Report Message with event "s" that is Type 101 or 102, a delimited Device Field is included in the Serial 3 string. The Device Field starts with a lower case "v" and ends with a back-slash delimiter. The second character is a field qualifier. There is only one Device Field qualifier defined "d" and indicates that this device is a door for access control. When not used this character will be sent as a space (HEX 20). The next characters define the Device number. 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 will be 16 but XR100/XR500 Version 205 panels can vary the number sent from 1 to 32.

vqnn"cccccc...(variable)...ccccccc\

Possible String	Description	Notes
v	= Device Field Identifier	Constant one character
q	= Qualifier (d or Space)	Constant one character
n	= Device Address	Digits to indicate device address, Ex. = 101, number of characters is variable - typically three
"	= Text Delimiter	Constant one character
c	= Device Name	Text characters to indicate device name, Ex. = FRONT ENTRANCE, number of characters is variable - from 1 to 32
\	= Field Delimiter	Constant one character

7.8 Time/Day Field

For Report Message with event "1" (Schedule), a delimited Time/Day Field is included in the Serial 3 string. The Time/Day Field starts with a lower case "i" and ends with a back-slash delimiter. The second character is a field qualifier. Currently, two Time/Day Field 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 Field Identifier	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 (XR200-485 version 200 or higher)
MON = Monday	FRI = Friday	H-B = Holiday B (XR200-485 version 200 or higher)
TUE = Tuesday	SAT = Saturday	H-C = Holiday C (XR200-485 version 200 or higher)
WED = Wednesday	HOL = Holiday	

7.9 Holiday Number Field

For the Report Message with event "g" (Holiday), a delimited Holiday Number Field is included in the Serial 3 string. The Holiday Number Field starts with a lower case "h" and ends with a back-slash delimiter. The second character is a field qualifier. Currently, no field 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 Field Identifier	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

7.10 Date Field

For the Report Message with event "g" (Holiday), a delimited Date Field is included in the Serial 3 string. The Date Field starts with a lower case "d" and ends with a back-slash delimiter. The second character is a field qualifier. Currently, no Date Field 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 Field Identifier	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

7.11 Equipment ID Field

For the Report Message with event "e" (Equipment), a delimited Equipment ID Field is included in the Serial 3 string. The Equipment ID Field starts with a lower case "g" and ends with a back-slash delimiter. The second character is a field qualifier. Currently, no Equipment ID Field 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 Field Identifier	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

The CellComSL converts all of the ContactID events described in SIA DC-05-1999.09 to Serial 3 format. Any other messages are sent as they are received in the Equipment ID Field.

For CellComSL

Possible String	Description	Notes
nnnnnn	= ACCT Q XYZ GG CCC	Modified ContactID message from master panel Refer to the ContactID Messages section below for a description of the variables

7.12 Service Code ID Field

For the Report Message with event "m" (Service Code), a delimited Service Code ID Field is included in the Serial 3 string. The Service Code ID Field starts with a lower case "s" and ends with a back-slash delimiter. Character 2 is a field 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.

sqnnnnnn\

Possible String	Description	Notes
s	= Service Code ID Field Identifier	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

7.13 Event Qualifier Field

The event message can have a text field or numeric field. There are different qualifiers for each.

eqn..n\
or eq"cc\

Possible String	Description	Notes
e	= Event Field Identifier	Constant one character
q	= Qualifier	Constant one character (described in the following table)
n	= Numeric ID (000 - 65535)	One to five characters
c	= Event Identifier	Text characters
\	= Field Delimiter	Constant one character

Qualifier	Description	
_ (space)		<ul style="list-style-type: none"> ■ A Serial 3 message sent as Fault can include an Event Field \e_"DT\ to indicate a dirty smoke detector. The SCS-1R Receiver processes this message on the printer or keyboard as SERVICE. Remote Access version 1.07 6/2/98 or lower will process this message as a generic Fault and does not recognize the new field. ■ A Serial 3 message sent as Closing can include an Event Field \e_"AC\ to indicate that all programmed areas of the system have now been armed. The SCS-1R Receiver processes this message on the printer or keyboard as an Area Closing.
e	Encryption	\ee"RI\ or \ee"NO\ may be added to any message by the receiver. They indicate whether the message from the panel was encrypted or not. <ul style="list-style-type: none"> ■ "RI" indicates that the message was encrypted using Rijndael encryption ■ "NO" indicates that the message was not encrypted. The SCS-1R passes the field through and does not print or display this information. ■ VR version 1.3.5+: "RH" indicates 256 bit encryption.
s	Sequence Number	Any Serial 3 event message to the receiver can include an Event Field \esnnn\ to provide a sequence number from 000 to 250 for the message and is only included when the message is sent by a cellular modem attached to the panel. This field is removed from the Serial 3 event message by the receiver when using an SCS-101 Network Interface Card operating with software version 203 or higher. An SCS-101 card with older version software passes this message to the host automation computer where it should be discarded.
t	Automatic Recall Message	A Serial 3 Automatic Recall message (S07 or S88) sent to the receiver can include an Event Field \etnnnn\ 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.
c	Traffic Count	A Serial 3 message sent as a Closing can include a Traffic Count Event Field \ecnrrnn\ 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.
f	Cellular Communication Trouble	A Serial 3 message sent as System Message 10 Warning: Low Communication Line will include a troubleshooting event qualifier \efn\ to provide additional information (a number 1 to 7) concerning the probable cause of the cellular communication issue. Please contact DMP Technical Services with the numeric value.
n	NAKs from Host	This section sent by VR with a System Message 100. It indicates the number of NAKs received before the S100 was reported
p	Protocol	An S16, S17, S19, S59, S60, or S58 may include a section, \ep"DS\, to indicate the panel is a DSC panel. This was added to SCS-VR 1.4.1
o	Previous MAC	SCS-VR version 1.4.1 will attach a previous and new MAC to System Message 58 - ALARM: Control Panel Substitution. The previous MAC message is of the form \eo"cccccccccc\, where every 2 c's represent the upper and lower nibble of a byte in the MAC address.
m	Current MAC	SCS-VR version 1.4.1 will attach a previous and new MAC to System Message 58 - ALARM: Control Panel Substitution. The new MAC message is of the form \em"cccccccccc\, where every 2 c's represent the upper and lower nibble of a byte in the MAC address.

7.14 Programming Field

The Programming Field is a field containing communication programming information of the panel and can be appended to Type Field 19, 83, 86, or 97. This field is sent from the XR500 and XR100 series control panels, version 116 (11/13/06) or higher but is not included in any Version 200 or higher. This field is included to provide Central Station an assurance that the panel is programmed as required.

String	Description	Length	Range
pq"PLBSRCCCCFFFTU\			
p	Programming Field Identifier	Constant one character	
q	Qualifier	Constant one character,	n = network
"	Text Delimiter	Constant one character	
P	Primary Communication Type	Constant one character,	7 = Net, 8 = DD
L	Second Line Type	Constant one character,	0 = None, 6 = Cell, 7 = Net, 8 = DD, B = D2
B	Network Backup	Constant one character,	Y = yes, N = no
S	Sub Code	Constant one character,	Y = yes, N = no
R	Retry Time	Constant two character,	03 - 15
C	Check In Time	Constant three character,	001 - 240
F	Fail Time	Constant three character,	001 - 240
T	TCP Enabled	Constant one character,	Y = yes, N = no
U	Supervised Backup	Constant one character,	Y = yes, N = no
\	Field Delimiter	Constant one character	

7.15 Path (or Communication) Information Section (c)

A Path Information Section is a field that can be appended to Serial 3 System messages S72 WARNING: Network/Communication Path Trbl, S73 Network or Communication Path Restored, S07 Automatic Recall Test OK, or S88 Automatic Recall OK - Unrestored System. The programming can be set to append only S72, S73, S07, and S88

or append every message from the panel. The Path Information Section starts with a lower case "c" and ends with a back-slash delimiter.

On XR panels, a qualifier follows the section and indicates this message is being communicated on the numeric path to follow for S07 and S88 **or** indicates that the Type Section 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 next character defines the path type hierarchy as either Primary or Backup.

On XTL30 hardware family panels, the qualifier indicates this message is being communicated on the receiver number for S07 and S88 **or** indicates the receiver number on which the S72 and S73 event occurred. The two digit number indicates the receiver number. The last character indicates the communication method as either First Phone Number/First IP or Second Phone Number/Second IP.

sqnn"tr

For XR550/350/150 panels:			
String	Description	Values	Notes
s	Path section	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 Section event occurred on the numeric path that follows.
n	Numeric path	01 - 08	Path number, typically two characters
t	Communication type	D, N, C, L, W	Constant one character and indicates the communication type of the path D = DD, N = Net, C = CID, L = CELL, W = WiFi
r	Path type	P, B	Constant one character and indicates the communication hierarchy of the path P = Primary, B = Backup
\	Field Delimiter		

For XT30 hardware family panels:			
String	Description	Values	Notes
s	Comm section	c	Constant one character
q	Qualifier	_ (_ = space)	Constant one character and indicates that this message is being communicated on the receiver number that follows
		f	Constant one character and indicates that the event occurred on the receiver number that follows
n	Receiver number	01 or 02	01 = Receiver 1, 02 = Receiver 2, typically two characters
t	Communication type	N, D, L, W	Constant one character and indicates the communication type N = Net, D = DD, L = CELL, W = Wi-Fi
r	Method	P, B	Constant one character and indicates the first or second communication method P = First Phone number or IP, B = Second Phone Number or IP
\	Field Delimiter		

note: W (Wi-Fi) is sent for XTL Plus, XT30, and XT50 series panels. XTLN-WiFi sends N (net).

For XR500/100 panels:			
String	Description	Values	Notes
s	Path section	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 Section event occurred on the numeric path that follows.
n	Numeric path	01 - 08	Path number, typically two characters
t	Communication type	D, N, C, L, R	Constant one character and indicates the communication type of the path D = DD, N = Net, C = CID, L = CELL, R = RS-232
r	Path type	P, B	Constant one character and indicates the communication hierarchy of the path P = Primary, B = Backup
\	Field Delimiter		

7.16 Call Information Field

A Call Information Field may be appended to message events when using an SCS-104 line card in the SCS-1R Receiver. Appending the Call Information Field is programmable (refer to the Model SCS-150 Receiver Processor Board Installation Guide for programming information). Two field formats are used, one for ANI/DNIS information and the other for Caller ID information. The field starts with a lower case "n" and ends with a back-slash delimiter. The second character is a field qualifier (a or c) indicating the message contains either ANI/DNIS (a) or Caller ID (c) information. The field may be included twice in the string indicating both ANI/DNIS and Caller ID information were present in the call received.

7.16.1 ANI/DNIS Message Format

The format and content of the ANI/DNIS information contained in this field is defined by the phone system present at the receiver location. The field typically contains ANI information and/or DNIS information. The receiver detects the ANI/DNIS content from the incoming call and passes it as-is to the host output.

na"iii...(variable)...iii\		
Possible String	Description	Notes
n	= Call Field Indicator	Constant one character
a	= ANI/DNIS Indicator	Constant one character
"	= Text Delimiter	Constant one character
i	= ANI/DNIS Information	Max 24 characters, limited to standard DTMF tones (0-9, #, *, A, B, C, and D)
\	= Field Delimiter	Constant one character

7.16.2 Caller ID Message Format

nc"ppp...(variable)...ppp\		
Possible String	Description	Notes
n	= Call Field Indicator	Constant one character
c	= Caller ID Indicator	Constant one character
"	= Text Delimiter	Constant one character
p	= Phone Number	The phone number calling the receiver, max 16 digits (0 - 9)
\	= Field Delimiter	Constant one character

7.17 Signal Strength Field

The Signal Strength Field is included in the following when the system message is sent on a a cellular path:

- S07 Automatic Recall Test OK
- S88 Automatic Recall OK - Unrestored System

The Signal Strength Field is included in the S72 WARNING: Network/Communication Path Trbl system message when the path that failed was a cellular path.

The Signal Strength Field is included in the S73 Network or Communication Path Restored system message when the path that restored was a cellular path.

The Signal Strength Field starts with a lower case "b". A qualifier follows indicating the type of signal. A number follows indicating the numeric value of the signal strength. The message ends with a back-slash delimiter.

bqnnn\		
Possible String	Description	Notes
b	= Signal Strength Field Indicator	Constant one character
q	= Qualifier	One character, c = cell signal strength
n	= Number	Numeric value of the signal strength
\	= Field Delimiter	Constant one character

For cellular signal strength, the numeric value sent is the same numeric value displayed for Cellular Signal Strength in the Diagnostics menu. The range of numeric values that may be sent are shown in the following table.

dBm Value	Numeric value sent
Blank display for <-111	999
-111 to -107	111 to 107
-105 to -99	105 to 099
-97 to -91	097 to 091
-89 to -83	089 to 083
-81 to -75	081 to 075
-73 to -67	073 to 067
-65 to -59	065 to 059
-57 to -51	057 to 051

7.18 Schedule Name Field

The Schedule Name Field is included when using numeric schedules, rather than shift or permanent/temporary

schedules. This functionality is new with the XR150/350/550 control panel family.

```
nq"cccccc...(variable)...ccccccc\
```

Possible String	Description	Notes
n	= Schedule Name Field Identifier	Constant one character
q	= Qualifier (currently a Space)	Constant one character
"	= Text Delimiter	Constant one character
c	= Schedule Name	ASCII characters to indicate schedule name, Ex. = FIRST SHIFT, number of characters is variable - from 1 to 32
\	= Field Delimiter	Constant one character

8 Serial 3 System Messages

00 A.C Power Restored

SERVICE NOTIFICATION FEATURE

A.C Power was restored to the panel. This message is a restoral for System Message 08.

01 Standby Battery Restored

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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. This message is a restoral for System Message 10.

NOT IMPLEMENTED - The signal decibel level between the panel and the receiver under MPX communication was restored to appropriate levels.

03 Panel Tamper Restored

SECURITY FEATURE

The panel's built-in tamper circuit was restored to a normal condition. This message is a restoral for System Message 11 and System Message 74.

04 Backup Communication Line Restored

SERVICE NOTIFICATION FEATURE

The panel's backup line of communication was restored. This message is a restoral for System Message 12.

05 Panel Ground Restored

SERVICE NOTIFICATION FEATURE

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

SECURITY FEATURE

If Closing Check is enabled in System Options, 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.

07 Automatic Recall Test OK

AUTOMATIC COMMUNICATION FEATURE

This message indicates that the panel is communicating properly. It is an automatic communication test message sent at the Test Time programmed in Communications for the path. It is sent every 24 hours by default. All combination fire/burg panels allow the test to be deactivated. Also see System Message 88 and System Message 97.

08 WARNING: A.C. Power Failure

SERVICE NOTIFICATION FEATURE

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 S00.

09 WARNING: Low Standby Battery

SERVICE NOTIFICATION FEATURE

Indicates that standby battery has fallen below 11.9 VDC. Battery is tested at 15 minutes past each hour. The restoral message is S01.

10 WARNING: Low Communication Line

SERVICE NOTIFICATION FEATURE

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.

PREVIOUS USE BUT NEVER IMPLEMENTED - The signal decibel level between the panel and the receiver under MPX communication is less than appropriate levels.

11 WARNING: Panel Tamper

SECURITY FEATURE

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 S03. Also, see System Message 74.

12 WARNING:Panel Backup Communication Fail

SERVICE NOTIFICATION FEATURE

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 S04.

13 WARNING: Panel Ground Fault

SERVICE NOTIFICATION FEATURE

The panel's built-in ground detection circuit was placed in an open condition. The restoral message is S05.

14 WARNING: Non-Alarm Message Overflow

COMMUNICATION SECURITY FEATURE

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 Message 18, System Message 40, System Message 41, System Message 42, and System Message 44.

15 * * AMBUSH * *

SILENT PANIC FEATURE

This message is sent if Ambush Reports are enabled in System Reports when the User Code for User Number 1 is

entered for any action (Arm, Disarm, Silence, access User Menu, etc.). It indicates that the end-user has initiated a silent alarm because of an emergency situation.

S15 * * AMBUSH * * is sent to the receiver using the Account Number of the first Area.

16 WARNING: Panel Not Responding

HIGH LINE COMMUNICATION SECURITY FEATURE

The receiver detects that the supervised account (high security) has failed to communicate within its proper time window. This message is only sent when the panel's main communication is set for MPX, DNET, HST, or NET. MPX (multiplex) is a supervised direct wire connection and DNET, HST, NET is packet data network communications such as Ethernet or long range radio. The restoral message is System Message 17.

17 Panel Response Restored

HIGH LINE COMMUNICATION SECURITY FEATURE

The receiver has detected that communications with the supervised account has been restored. This message is a restoral for System Message 16. This message can also be generated when a network panel sends a checkin message after receiver reset or powerup.

18 ALARM: Zone Alarm Overflow

COMMUNICATION SECURITY FEATURE

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 Message 14, System Message 40, System Message 41, System Message 42, and System Message 44.

19 WARNING: New Panel on Line

SECURITY FEATURE

The receiver is indicating that a new account has become active. This message is sent any time one of the following conditions are met:

- Communications is initialized, either by the DMP factory or in the Initialization menu
- Remote Key is changed in Remote Options
- Remote Phone Number is changed in Remote Options

In addition, Serial 3 panels may append communication programming information.

21 Automation Not Responding

The receiver has detected that the Host Automation Computer has failed to acknowledge a receiver message indicating communication failure. The restoral message is System Message 22.

22 Automation Restored

The receiver has detected that communication with the Host Automation Computer has been restored. This message is a restoral for System Message 21.

23 Panel Test Signal Received

COMMUNICATION FEATURE

A manually operated communication test has been performed at the panel keypad.

26 WARNING: Auxiliary Fuse Trouble

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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.

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

SILENT PANIC FEATURE

At Disarming, an end-user is indicating a silent alarm because of an emergency situation. This message is sent if Early Morning Ambush is enabled in Area Information and the end-user has not entered a second User Code (PIN) or has not activated the appropriate input device within the programmed number of minutes after Disarming.

34 WARNING: Alarm Bell Silenced

FALSE ALARM REDUCTION FEATURE

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

38 WARNING: Bell Circuit Trouble

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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

COMMUNICATION SECURITY FEATURE

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 Message 14, System Message 18, System Message 41, System Message 42, and System Message 44.

41 ALARM: Panic Zone alarm Overflow

COMMUNICATION SECURITY FEATURE

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 Message 14, System Message 18, System Message 40, System Message 42, and System Message 44.

42 ALARM: Burglary Zone Alarm Overflow

COMMUNICATION SECURITY FEATURE

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 Message 14, System Message 18, System Message 40, System Message 41, and System Message 44.

43 WARNING: Bell Fuse Trouble

SERVICE NOTIFICATION FEATURE

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

SERVICE NOTIFICATION FEATURE

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.

45 Abort Signal Received

FALSE ALARM REDUCTION FEATURE

This message is sent if Abort Reports is enabled in System Reports when a User Code is entered, Disarming the panel during the time after a burglary alarm occurred and before the panel's Bell Cutoff timer expired. The intended use for this message is to signal the central station that the burglary alarm was aborted.

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

SERVICE NOTIFICATION FEATURE

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

SERVICE FEATURE

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

SERVICE NOTIFICATION FEATURE

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.

49 Cancel Signal Received

FALSE ALARM REDUCTION FEATURE

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 message 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

SERVICE NOTIFICATION FEATURE

The panel has detected that an attached wireless receiver meets one of the following conditions:

- The receiver has stopped properly communicating with the panel
- Wireless Jamming is detected while the system is disarmed
- The receiver's tamper switch is faulted

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.

53 Bell Fuse Restored

SERVICE NOTIFICATION FEATURE

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

REMOTE SECURITY FEATURE 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 Internal Message

NOT SENT TO THE HOST AUTOMATION COMPUTER

Panel/Receiver Request for Alarm Receiver key.

58 ALARM: Panel Substitution

COMMUNICATION SECURITY FEATURE

The receiver has detected that a supervised data network panel account has been substituted by another panel. The intended use of this message is to detect in high security applications when communication for the account is substituted by the use of a duplicate panel.

59 WARNING: Substitution/Checkin Overflow

SERVICE NOTIFICATION FEATURE

The receiver has detected that its memory cannot accommodate the number of supervised HST/NET (network) panel accounts that have been established. The maximum number of HST/NET panel accounts with Checkin enabled that can be established on an SCS-1R Receiver is 2500 supervised HST/NET panel accounts. The account number associated with this message will be the last account to check-in.

60 WARNING: Invalid Panel Message Format

The receiver has detected a Serial 3 panel message that was not formatted correctly. This can occur when a panel has been incorrectly programmed to send PC/Host Log reports to the SCS-1R Receiver.

61 - 65 WARNING: Communication Trouble - Line x

NOT SENT TO THE HOST AUTOMATION COMPUTER

SCS-150 Version 101 uses System Message 153 rather than messages 61 - 65 for communication trouble.

66 System Test Begin

WALK TEST FEATURE

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

WALK TEST FEATURE

The panel has been removed from a walk test. This is a Test End message for System Message 66.

68 Receiver Printer Failed

SERVICE NOTIFICATION FEATURE

The SCS-1R Receiver detects that the appropriate RS-232 voltage is not present on pin 5 of the Activity Log connection. The restoral message is System Message 69.

69 Receiver Printer Restore

SERVICE NOTIFICATION FEATURE

The SCS-1R Receiver detects that the appropriate RS-232 voltage is now present on pin 5 of the Activity Log connection. This message is a restoral for System Message 68.

70 End of History Buffer

NOT SENT TO THE HOST AUTOMATION COMPUTER

71 Request for Receiver Time and Date

NOT SENT TO THE HOST AUTOMATION COMPUTER

72 WARNING: Network or Communication Path Trouble

COMMUNICATION SECURITY FEATURE

The panel has not received a proper acknowledgement from SCS-1R Receiver or the receiver (account 0) has detected a data communication failure. This message is transmitted if it is a failure to communicate over dialer, cellular, or network as either the main or backup communication. The restoral for this message is System Message 73.

In firmware prior and including version 121 06/19/08 of the XR500, XR500N, XR500E series panels, and all firmware versions of the XR200, the S72 message was for only sent for NET/HST communication failures.

73 Network or Communication Path Restored

COMMUNICATION SECURITY FEATURE

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: In firmware prior and including version 121 06/19/08 of the XR500, XR500N, XR500E series panels, and all firmware versions of the XR200, the S72 message was for only sent for NET/HST communication restorals.

74 ALARM: Tamper During Armed State

SECURITY FEATURE

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 S03. Also, see System Message 11.

75 ALERT: Early To Close

ACCESS CONTROL FEATURE

The panel has detected that system arming occurred too early before the scheduled closing time. This message from the panel is optional and allows a programmable number of minutes to define the limit as to how early arming can take place before the scheduled closing time.

76 ALERT: Late To Open

ACCESS CONTROL FEATURE

The panel has detected that the system has not been disarmed near the scheduled opening time. This message from the panel is optional and allows a programmable number of minutes to define the limit as to how late disarming can take place after the scheduled opening time.

77 ALERT: Unauthorized Entry

ACCESS CONTROL FEATURE

A User has Disarmed an Area outside of their Access time according to one or more Schedules. The meaning is dependent on the panel or panel hardware family:

- XR550 family: One or more of the (up to 4) Profiles grants Access to an Area for a different time according to one of the (up to 8) Access Schedules assigned to that Profile.
 - *note: Adding a Schedule to the Profile, deleting all Access Schedules from a Profile (makes Access Areas active at all times), adding an Access Area to a Profile that is in schedule, changing one of the assigned Time Schedules, etc. can correct this.*
 - XT50: A Scheduled Level User has Disarmed an Area outside of the panel's Permanent Schedule.
 - XR500 family: Profile grants Access to an Area for a different Shift.
 - *note: Changing Shift/Time Access to Anytime, adding a Shift to the Profile, or adjusting a Shift Schedule can correct this.*
-

78 ALERT: System Recently Armed

FALSE ALARM REDUCTION FEATURE

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

FALSE ALARM REDUCTION FEATURE

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

FALSE ALARM REDUCTION FEATURE

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 WARNING: Network Card Trouble - Card c

COMMUNICATION SECURITY FEATURE

Receiver generated message. Not sent by panel. The receiver has detected that a supervised SCS-101 network line card has failed to communicate with the receiver. This is a network line card hardware, power, or connection issue. The restoral for this message is System Message 82.

note: This message is only sent if Card Model is set to 101 in Line Card programming on the SCS-150. The complimentary message for an SCS-104 network card is an S154 (missing).

82 Network Card Restored - Card c

COMMUNICATION SECURITY FEATURE

Receiver generated message. Not sent by panel. The receiver has received a proper acknowledgment from a previously missing SCS-101 network line card and communication is restored. This message is a restoral for System Message 81.

note: This message is only sent for the SCS-101. The complimentary message for an SCS-104 is an S154 (restored).

83 Remote Programming Complete

REMOTE SECURITY FEATURE

The panel has detected that a remote (upload/download) session has just been completed. In addition, Serial 3 panels may append communication programming information. See "Programming Field" section.

84 Remote Command Received

REMOTE SECURITY FEATURE

The panel has detected that during a remote (upload/download) session, it responded to a command such as arm/disarm, schedule change, etc.

86 WARNING: Local Programming

PROGRAMMING SECURITY FEATURE

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. See "Programming Field" section.

87 WARNING: Transmit Failed-Msgs Not Sent

COMMUNICATION SECURITY FEATURE

This message indicates that one or more messages were not sent to the receiver; the panel used all of its retries in an attempt to send a message to the receiver on a particular path.

- The number of retries varies by path type.
 - Failed check-in messages do not cause this message to be sent.
 - For XT30 family panels, failed daily auto recall test messages (S07 / S88) do not cause this message.
 - For XR550 and XR500 family panels, this message is not sent if there are only Network (or Wi-Fi) paths.
 - *note: Network paths do not fail in the sense that the panel will never discard a message. It will send all messages once the path restores.*
-

88 Automatic Recall OK - Unrestored System

SERVICE NOTIFICATION FEATURE

This message is sent in place of the S07 message. This message indicates 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: Unrestored 24-Hour Zones, AC Power, Standby Battery, and Phone Lines. The intention of this message is to reinforce identification of troubles in fire systems.

Notes:

1. To troubleshoot this message:
 - Perform a System Test in the User Menu to test the AC and battery.
 - Perform a Sensor Reset in the User Menu to restore latched 24 hour zones such as smoke detectors that have gone off.
 - Access the Diagnostics Menu to test communications paths.
 2. For XR500, version 212 and later, and XR550 103 (10/18/13), this message is only sent if there is at least 1 device programmed as fire (FI) type. Since this message is meant to be used for fire systems only, this is done to reduce S88's on burglary only systems.
 3. This message is required for UL Commercial Fire listing
 4. See also S07 and S97
-

89 Supervised Wireless Restored

SECURITY FEATURE

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 WARNING: Unrecognized Message

SECURITY FEATURE

A signal transmitted to the receiver by a panel using a valid communication sequence could not be recognized as a definable message by the receiver.

91 Service Requested

SERVICE NOTIFICATION FEATURE

By use of a keypad command, a user is indicating the need for service on the alarm panel.

92 WARNING: No Arm/Disarm Activity

CUSTOMER RETENTION FEATURE

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

CUSTOMER EMERGENCY FEATURE

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

CUSTOMER EMERGENCY FEATURE

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

CUSTOMER EMERGENCY FEATURE

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

VERIFIED RESPONSE FEATURE

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.

97 Network Communication Test OK

AUTOMATIC COMMUNICATION FEATURE

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 S07 and System Message 88. In addition, Serial 3 panels may append communication programming information. See "Programming Field" section.

98 SCS-1R Memory Full

The SCS-1R Receiver has detected that its memory cannot hold another message from a panel and will not accept any other panel signals. The intended use of this message is to indicate that after an extended period of time, the receiver's large memory has become full because it is unable to release a message to the LCD Keypad or the SCS-1R Printer. When the SCS-1R Receiver is not receiving a proper acknowledgment from the Host Automation Computer, it operates in the NO RESPONSE FROM HOST AUTOMATION mode. Messages are sent to the SCS-1R LCD Keyboard and Printer for acknowledgment by an operator. If the LCD Keypad and/or Printer are not operating properly, or if messages are not acknowledged at the LCD Keypad, the memory begins to store the messages until it is full. Also, if the PRINT ALWAYS option in receiver programming is marked YES (See section 10) and the printer is not operating correctly, the memory begins to store messages until it is full. This occurs when the Host Automation Computer is or is not properly acknowledging messages.

99 System Check

The SCS-1R Receiver sends this message at a periodic rate to verify communication between the receiver and the Host Automation Computer. The periodic rate is based on receiver programming in Host Configuration.

This message is always sent Serial 1.

101 Device Missing (9/21/10)

SERVICE NOTIFICATION FEATURE

This message is sent if a Device Fail Output has been programmed in Output Options and either of the following conditions are met:

- A device is not responding to messages from the panel
- The panel has attempted to send programming to a device on the bus but didn't receive a proper acknowledgment from the device

Devices can include 734, 734N, LX-Bus zone expanders, wired or wireless keypads.

Programming of devices from the bus is provided in version 206 of the XR500/100 or any XR550 family panel. The only device that is capable of receiving programming is the Model 734 access control module. Examples of improper acknowledgment from the device would be a NAK because programming being sent is not correct for the version of software in the device. Also, no acknowledgment from the device would be considered improper.

102 Device Restored

SERVICE NOTIFICATION FEATURE

This message is a restoral for 101.

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.

or

Programming of a device on the bus was successful after a past failure had occurred.

110 Aux Power Fail

Sent for firmware version 600 and greater panels. Auxiliary power failure is reported if the panel cannot properly power the auxiliary circuit:

- XR550 family: AUXPWR is 2 volts or lower than +12 or BELL_+
- XT30 family: AUXMON is 2 volts or lower than BATMON (with or without BATTEST)

The restoral is System Message 111 - Aux Power Restore.

111 Aux Power Restore

Sent for firmware version 600 and greater panels. This is a restoral for System Message 110 - Aux Power Fail.

112 DC Power Fail

Sent for firmware version 600 and greater panels. DC power fail is reported for XR550 family panels if the panel is not charging the battery properly - i.e. if AC is present and the voltage on +12 is lower than the voltage on BAT_+

The restoral is System Message 113 - DC Power Restore.

113 DC Power Restore

Sent for firmware version 600 and greater panels. This is a restoral for System Message 112 - DC Power Fail.

116 On Demand Monitoring Started

Sent for XT30 hardware family version 125 and greater. This message indicates that On Demand Monitoring has started.

117 On Demand Monitoring Stopped

Sent for XT30 hardware family version 125 and greater. This message indicates that On Demand Monitoring has stopped.

121 ALERT:Cell Data Communication Excessive

CELLULAR DATA OVERAGE NOTIFICATION FEATURE

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.

Notes:

1. 3000 bytes of data is approximately 20 messages such as burglar alarms or open/close messages.
 2. Supervision Checkin messages are not counted towards the total number of bytes for the XR100/XR500 Version 205 or higher.
 3. This timer is restarted on a panel power-up or panel reset using the J16 Reset jumper.
-

122 WARNING:Cell Data Non-Alarm Suppress

CELLULAR DATA OVERAGE REDUCTION FEATURE

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 except for XR100/XR500 Version 205 and higher panels where only the supervision Checkin messages continues to be sent..

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.

Notes:

1. Panel events are always stored in the panel display event buffer and can be retrieval using remote software.
2. 1000 bytes of data is approximately eight fire alarm messages.
3. 1000 bytes of data is approximately seven burglar alarm messages.
4. Supervision Checkin messages are not counted towards the total number of bytes for the XR100/XR500

Version 205 or higher.

5. This timer is restarted on a panel power-up or panel reset using the J16 Reset jumper.

123 ALARM:Cell Data Fire Alarm Suppress

CELLULAR DATA OVERAGE REDUCTION FEATURE

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.

Notes:

1. 1000 bytes of data is approximately eight fire alarm messages.
 2. Supervision Checkin messages are not attempted during this period for any control panel including the XR100/XR500 Version 205.
 3. This timer is restarted on a panel power-up or panel reset using the J16 Reset jumper.
-

124 ALARM:Cell Data Non-Fire Alarm Suppress

CELLULAR DATA OVERAGE REDUCTION FEATURE

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.

Notes:

1. 1000 bytes of data is approximately seven burglar alarm messages.
 2. Supervision Checkin messages are not attempted during this period for any control panel including the XR100/XR500 Version 205.
 3. This timer is restarted on a panel power-up or panel reset using the J16 Reset jumper.
-

125 Cell Data Communication Fully Restored

CELLULAR DATA OVERAGE NOTIFICATION FEATURE

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

CELLULAR DATA OVERAGE NOTIFICATION FEATURE

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

COMMUNICATION SECURITY FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

131 ALARM: Cell Communicator Bus Failed

SERVICE NOTIFICATION FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

132 Cell Communicator Bus Restored

SERVICE NOTIFICATION FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

133 WARNING: Cell Communicator DC Failed

SERVICE NOTIFICATION FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

134 Cell Communicator DC Restored

SERVICE NOTIFICATION FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

135 WARNING: Cell Communicator Low Battery

SERVICE NOTIFICATION FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

136 Cell Communicator Battery Restored

SERVICE NOTIFICATION FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

137 WARNING: Cell Communicator Tamper

SECURITY FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

138 ALARM: Cell Communicator Tamper

SECURITY FEATURE

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.

note: This message is used for XR500/100 with CellComRT.

139 Cell Communicator Tamper Restored

SECURITY FEATURE

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 Message 137 and System Message 138.

note: This message is used for XR500/100 with CellComRT.

140 Trouble Override

Sent for firmware version 600 and greater panels. This message indicates that a user has acknowledged a System Trouble Message by selecting OKAY when arming the system.

151 WARNING: Memory Usage pp% - ddddddd

System Message Type 151 is memory buffer usage and is appended with a qualifier field indicating 50, 60, 70, 80, or 90 percent full and indicating whether printer, display and/or system buffer is filling. The first indication of increasing memory usage is sent at 60 percent full, then 70, etc. The 50 percent indication is sent when the memory usage is decreasing and reaches 50 from a higher memory usage range. Note: It is not necessary to send the 90% indication on memory recovery (as memory usage is decreasing). p = 50, 60, 70, 80, 90, d = Display, Printer, or System.

Example:

```
Zs\xxx\t 151\e7"DISPLAY\  
      8"PRINTER\  
      9"SYSTEM \
```

153 WARNING:Communication Trouble - Line cl

The receiver has detected that a digital dialer telephone line has experienced a failed communication attempt. A failed communication attempt is defined as the telephone line going off hook for an incoming call but not successfully communicating with a panel. c = card number (1 - 8), l = line number (1 - 4).

Example:

```
Zs\xxx\t 153\e 0nn\  
      nn = 11-14, 21-24, 31-34, 41-44, 51-54, 61-64, 71-74, 81-84
```

154 WARNING: Line Card c pppppppp

The receiver processor has detected an issue with a programmed line card. Missing is displayed when the processor cannot communicate with the line card. Error is displayed when a component of the line card is not functioning properly. Restored is displayed when all functions of the card are returned to normal. c = card number (1 - 8), p = Missing, Error or Restored.

Example:

```
Zs\xxx\t 154\eq00n\  
      q (qualifier)  
      m = line card missing  
      d = line card error  
      r = line card restored  
      n = 1-8 (line card number)
```

155 WARNING: Comm Line pppppppp - Line cl

The receiver has detected that a digital dialer telephone line or a network line is missing (zero volts, unplugged, no voltage detected) or restored from missing. p = Trouble or Restored, c = card number (1 - 8), l = line number (0 - 4).

Example:

```
Zs\xxx\t 155\eq0nn\  
  q (qualifier)  
  f = telephone or net line missing  
  r = telephone or net line restored  
  nn = 10-14, 20-24, 30-34, 40-44, 50-54, 60-64, 70-74, 80-84
```

9 Message Quick Reference

The following tables provide a quick summary of all Serial 3 messages. For complete definition of Serial 3 messages, see section 7.

9.1 Serial 3 Message Quick Reference

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 field fields in their typical order. However, the order of fields is not fixed. It is recommended that the automation system be configured to find the appropriate field needed regardless of the order of occurrence. This will allow future fields to be added without the immediate need for automation system revision. A field can be located by searching the characters that follow the delimiter "\" (HEX 5C) for the desired field character (see section 7.1).

9.1.1 Serial 3 Zone Messages

Zone Alarm	1-12345	Za\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\	ee"RI\
Zone Fail	f	SV	(qualifier for zone on Service)	(encryption qualifier)
Zone Missing	h	PN		(may be included)
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			
Zone Trip Count	p			

Examples:

Burglary Alarm

```
1-12345 Za\060\t "BU\z 001"EAST OFFICE DOOR\a 001"EAST WAREHOUSE \CR
```

Generic Alarm

```
1-12345 Zr\060\t "BL\z 001"EAST OFFICE DOOR\a 001"EAST WAREHOUSE \ee"RI\CR
```

Fire Alarm

```
1-12345 Za\037\t "FI\z 001"OFFICE SMOKE DET\ee"RI\CR
```

Service Message - Dirty Smoke Detector

```
1-12345 Zw\043\t "FI\z 001"OFFICE SMOKE DET\e_"DT\ee"NO\CR
```

Burglary Zone Bypass by User

```
1-12345 Zx\085\t "BU\z 001"EAST OFFICE DOOR\ u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \CR
```

Burglary Zone Reset from Bypass by User

```
1-12345 Zy\085\t "BU\z 001"EAST OFFICE DOOR\ u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \CR
```

Burglary Zone Automatic Swinger Bypass by System

```
1-12345 Zx\085\t "BU\z 001"EAST OFFICE DOOR\ u 32765"SWINGER BYPASS \a 001"EAST WAREHOUSE \ee"NO\CR
```

Zone Trip Count

```
1-12345 Zp\067\t "BU\z 001"EAST OFFICE DOOR\ a 001"EAST WAREHOUSE \e 00123\CR
```

Wireless Keypad Tamper-Zone Trouble

```
1-12345 Zt\037\t "A1\z 202"WIRELESS KEYPAD \CR
```

9.1.2 Serial 3 Door Access Messages

Door Access	1-12345	Zj\045\t	"DA\v 001\u 00001"WILLIAM SMITH	\C _R
Denied - Armed Area	AA			
Denied - Invalid Area	IA		"FRONT ENTRANCE	ee"RI\ (encryption qualifier may be included or 2nd User
Denied - Invalid Time	IT		(name may be included	↑ may be added for access denied on Two Man Rule)
Denied - Anti-Passback	AP		w/device number)	us00002"BILL JONES
Denied - Invalid Code	IC			\
Denied - Invalid User Level/Profile	IL			↑
				ee"RI\

Examples:

Door Access

```
1-12345 Zj\045\t "DA\v 001\u 00001"WILLIAM SMITH \CR
```

Door Access with Device Name


```

1-12345 Zj\062\t "DA\v 001"FRONT ENTRANCE \u 00001"WILLIAM SMITH \ee"NO\C_R
Access Denied with Device Name and Second User
1-12345 Zj\087\t "AA\v 001"FRONT ENTRANCE \u 00001"WILLIAM SMITH \us00002"BILL JONES \ee"RI\C_R

```

Notes:

1. Door Access with Device Name included using XR200-485 firmware version 201 or higher.
2. Access Denied messages with Device Name and second user (Two Man Rule) included using XR200-485 firmware version 201 or higher.
3. Access denial definitions:
 - Armed Area - Area assigned to the device in Device Setup Programming for which the User has access is active and Armed. Either the User does not have disarming authority or has authority but not for any of the selected Areas.
 - Invalid Area - Area assigned to the device in Device Setup Programming does not match Area(s) assigned to User Code / Profile(s).
 - Invalid Time - User has access to Area(s) but current time is outside all schedules in all Profiles assigned to the User.
 - Previous Access - User has access to Area(s) and is within schedule but Anti-Passback is enabled. The User did not properly Egress a previously accessed Area.
 - Invalid Code - (1) The User Code is not found in the panel or (2) Two Man Rule is enabled and a second Code has not been entered or the same Code was entered twice.
 - Invalid User Level/Profile - Door Access is not enabled in any Profile assigned to the User.
4. Door Status with Zone Number message can be found in the Real-Time Status Messages section below.

9.1.3 Schedule Change Messages

```

Permanent Sched 1-12345 Zl\063\t "PE\io08:00"MON\ic02:30"TUE\u 00001"WILLIAM SMITH \C_R
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      ee"RI\
Shift 2 Sched        S2 ↑      SAT      (encryption qualifier)
Shift 3 Sched        S3 ↑      SUN      (may be included)
Shift 4 Sched        S4 ↑      HOL
Numeric Sched        00-99 ↑      H-A
                    ↑      H-B
                    ↑      H-C
                    ↑
                    n "OFFICE WEEKDAY \      (Schedule name field will be included with numeric schedules)

```

Examples:

Permanent Schedule Change by User

```
1-12345 Zl\063\t "PE\io08:00"MON\ic02:30"TUE\u 00001"WILLIAM SMITH \C_R
```

Shift One Schedule Change by Area by User

```
1-12345 Zl\086\t "S1\io08:00"MON\ic02:30"TUE\ a 001"EAST WAREHOUSE \u 00001"WILLIAM SMITH \C_R
```

Shift Two Holiday Schedule Change by Area by User

```
1-12345 Zl\086\t "S2\io08:00"HOL\ic02:30"HOL\ a 001"EAST WAREHOUSE \u 00001"WILLIAM SMITH \ee"NO\C_R
```

Secondary Holiday Schedule Change by User

```
1-12345 Zl\062\t "SE\io08:00"HOL\ic02:30"HOL\u 00001"WILLIAM SMITH \ee"RI\C_R
```

Shift Four Holiday A Schedule Change by Area by User

```
1-12345 Zl\086\t "S4\io08:00"H-A\ic02:30"H-A\ a 001"EAST WAREHOUSE \u 00001"WILLIAM SMITH \C_R
```

Numeric Schedule Change by User

```
1-12345 Zl\081\t 07\n "PLANT WEEKDAY \io08:00"MON\ic02:30"TUE\u 00001"WILLIAM SMITH \C_R
```

9.1.4 Opening/Closing Messages

```

Opening Report      1-12345 Zq\062\t "OP\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \C_R
Closing Report      CL
Late to Close       LA
                    us00002"BILL JONES \
                    (2nd user may be included after 1st)
                    (2 Man Rule, OP only)
                    ↑
                    e "AC\
                    (all armed qualifier)
                    (may be included)
                    ↑
                    ec12345\
                    (traffic count qualifier)
                    (may be included)
                    ↑
                    ee"RI\
                    (encryption qualifier)
                    (may be included)

```

Examples:

Area Open by User

```
1-12345 Zq\059\t "OP\u 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \C_R
```

Area Open Using Two Man Rule Operation

1-12345 Zq\085\t "OP\um 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \us00002"BILL JONES \ee"RI\C_R

Area Close by Automatic Arming

1-12345 Zq\059\t "CL\um 32766"SCHEDULE \a 001"EAST WAREHOUSE \C_R

Area Close by Service User

1-12345 Zq\065\t "CL\um 32767"SERVICE USER \a 001"EAST WAREHOUSE \ee"NO\C_R

Area Close by Remote Access User

1-12345 Zq\059\t "CL\um 32764"REMOTE USER \a 001"EAST WAREHOUSE \C_R

Area Close with All Areas Armed Qualifier

1-12345 Zq\071\t "CL\um 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \e "AC\ee"RI\C_R

Area Close with Traffic Count Qualifier

1-12345 Zq\067\t "CL\um 00001"WILLIAM SMITH \a 001"EAST WAREHOUSE \ec12345\C_R

9.1.5 User Code Messages

User Code Added	1-12345 Zu\064\t "AD\um00002"BILL JONES \u 00001"WILLIAM SMITH \C _R
User Code Changed	CH
User Code Deleted	DE
User Code Inactive	IN

↑
ee"RI\
(encryption qualifier)
(may be included)

Examples:

User Code Added by User

1-12345 Zu\064\t "AD\um00002"BILL JONES \u 00001"WILLIAM SMITH \C_R

User Code Changed by User

1-12345 Zu\064\t "CH\um00002"BILL JONES \u 00001"WILLIAM SMITH \ee"RI\C_R

User Code Deleted by User

1-12345 Zu\064\t "DE\um00002"BILL JONES \u 00001"WILLIAM SMITH \C_R

User Code Inactive

1-12345 Zu\038\t "IN\ua00002"BILL JONES \C_R

9.1.6 Holiday Date Change Messages

Holiday Date	1-12345 Zg\046\h 20\d 12-25\um 00001"WILLIAM SMITH \C _R
	↑ t "HA\ (Holiday A,B,C type field may be included)
	↑ ee"RI\ (encryption qualifier) (may be included)

Examples:

Holiday Date Change by User

1-12345 Zg\046\h 20\d 12-25\um 00001"WILLIAM SMITH \C_R

Holiday B of Holiday 20 Date Change by User

1-12345 Zg\052\t "HB\h 20\d 12-25\um 00001"WILLIAM SMITH \ee"RI\C_R

Note: Holiday A (H-A) or B (H-B) or C (H-C) included using XR200-485 firmware version 200 or higher.

9.1.7 Equipment Messages

Equip Repaired	1-12345 Ze\023\t "RP\g 123456\C _R
Equip Replaced	RL
Equip Added	AD
Equip Removed	RM
Equip Adjusted	AJ
Equip Test	TS
Receiver EEPROM Error - System Options	SO
Receiver EEPROM Error - Printer	PR
Receiver EEPROM Error - Line Card	LC\v ccc (c = line card number, zero-padded)
Receiver EEPROM Error - Host Port	H1
Receiver EEPROM Error - Host Port	H2
Receiver EEPROM Error - Serial Port	SP
Receiver EEPROM Error - Log	LG
Receiver EEPROM Error - Entire EEPROM	EE
ContactID	CD

Example:

CellComSL: Host Panel Acct# 1212 Had an Event (1), a Custom Defined Test (617), in Partition 01 on Zone 002

1-12345 Ze\040\t "CD\g 1212 1 617 01 002\ee"NO\C_R [1]

note:

1. All ContactID Event Codes defined by SIA DC-05-1999.09 (Digital Communication Standard - Ademco @ Contact ID Protocol for Alarm System Communications) are converted to DMP Serial 3 format if the Event Qualifier

is a 1 or 3. The message shown in the example above is sent if a ContactID event is received that is not defined by DC-05 or the Event Qualifier is a 6.

9.1.8 Service Code Messages

```
Service Code Start 1-12345 Zm\022\t "ST\sY12345\CR
Service Code Stop          SP
                           ↑
                           ee"RI\
                           (encryption qualifier)
                           (may be included)
```

9.1.9 Other System Messages

```
Gen System Msg      1-12345 Zs\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 or all messages)
                    (may be included)
                    ↑
                    cf07"LB\
                    (Path Info Appended To t 72, t 73)
                    (may be included)
                    ↑
                    ee"RI\
                    (encryption qualifier)
                    (may be included)
                    ↑
                    et0024\
                    (# of Hours to Next Recall Appended To t 07, t 88)
                    (may be included)
```

```
Gen System Msg w/user 1-12345 Zs\038\t 66\u 0001"WILLIAM SMITH \CR
                    ↑
                    tz"BUPNFI\
                    (Type Field with zone types)
                    (may be included for "t 66" or "t 67")
                    ↑
                    ee"RI\
                    (encryption qualifier)
                    (may be included)
```

```
Device Sys Msg      1-12345 Zs\020\t 101\v 100\CR
                    ↑
                    ee"RI\
                    (encryption qualifier)
                    (may be included)
```

```
Service Request Sys Msg 1-12345 Zs\020\t 091\v 001"FRONT OFFICE KEYPAD\u 0001"FRANKLIN WILLIAM SHEPARD III\CR
                    ↑
                    ee"RI\
                    (encryption qualifier)
                    (may be included)
```

```
Abort Sys Msg      1-12345 Zs\039\t 150\u 0001"WILLIAM SMITH \CR
                    ↑
                    ee"RI\
                    (encryption qualifier)
                    (may be included)
```

```
Dialer Comm Trouble Msg 1-12345 Zs\020\t 153\e 054\CR
```

```
SCS-VR Automation Rejected Message 1-12345 Zs\020\t 100\en010\CR
```

```
Automatic recall OK - Unrestored system with Call Information
```

```
CID      1-12345 Zs\042\t 07\et0002\c 03"DB\nc"8006414282\CR
ANI/DNIS 1-12345 Zs\046\t 088\et0002\c 03"DB\na"*8319362#321*\CR
```

9.2 Real-Time Status Messages

State changes are sent for Devices, Zones, or Outputs with the Real-Time Status Messages feature enabled. The messages are only sent via PC Log reports to a PC and not sent to Host Automation from the SCS-1R. A PC Log report always contains the Minutes Ago string (& 0).

```
Zone Real-Time Events
Door Open [1]          1-12345 &   0Zc\020\t "DO\z 162\CR
Door Closed [2]       DC
Door Forced Open [3]  FO

Output Real-Time Events
Output On             1-12345 &   0Zc\020\t "ON\v 999\CR
Output Off           OF
Output Pulse         PL
Temporal 3           TP
Momentary            MO

Door (Device Type) Real-Time Events [4]
Strike On (unlocked) 1-12345 &   0Zc\020\t "ON\vd016\CR
Strike Off (locked)  OF
```

Notes:

1. Door Opened - Any zone with Real-Time Status enabled changes to a state other than normal
2. Door Closed - Any zone with Zone Real-Time Status enabled changes state to normal.
3. Door Forced Open - Zone 2 on any Door Device Type (012, 022, 032...162, 502, 506...962) with Door Real-time Status and Send Door Forced enabled changes state from normal and the strike has been off (locked) for the Forced Open Time.
 - If the door strike was initiated by a Zone 3 REX, the Forced Open Time is the Zone 3 REX Strike Time plus 3 seconds
 - If the strike was initiated by any other means, the Forced Open Time is 3 seconds
4. Door Real-Time Events include the Device number (001, 002...016, 501, 505...961).

10 ContactID Messages

Version 103 and higher of the SCS-150 Receiver Processor Board may be programmed to process messages that follow the ContactID format described in SIA DC-05-199.09.

The receiver outputs ContactID messages to the Host Automation Computer in the following format:

```
xxx...xxx_c_ACCT_18_Q_XYZ_GG_CCC_S_ynnn...nnn

x   = SCS-1R Receiver Report Header, see the section for content details.
     The number of characters sent is dependent upon the programming of the SCS-1R Receiver.
_   = Space
c   = ContactID message
_   = Space
ACCT = four digit account number (0-9), pad with spaces
_   = Space
18  = ContactID Format identifier (always 18)
_   = Space
Q   = Event qualifier
     1 = New event or Opening,
     3 = New restore or Closing,
     6 = Previously reported condition still present (status report)
_   = Space
XYZ = Event code (three hex digits 0-9, B-F)
_   = Space
GG  = Group or Partition number (two hex digits 0-9, B-F) Note for DMP, this is the Area or User number
_   = Space
CCC = Zone number (Event reports) or User number (Open/Close reports) Three characters 0-9, B-F
_   = Space
S   = ContactID checksum
_   = Space
y   = Call information indicator. A = ANI/DNIS indicator or C = Caller ID indicator (both may be present)
n   = For ANI/DNIS, this is the ANI/DNIS information.
     Max 24 characters, limited to standard DTMF tones (0-9, #, *, A, B, C, and D)
     = For Caller ID, this is the phone number calling the receiver, max 16 digits (0-9)
```

Following are examples demonstrating how ContactID messages may appear depending upon the presence of Caller ID &/or ANI/DNIS information. In the examples, 521_1234 is the SCS-1R receiver report header indicating the message is being received on receiver number 5, card 2, line 1, account number 1234.

```
521 1234 c 1234 18 1 134 01 009 5 C4175551212 A*0123401234*1234*
xxxxxxxx_c_ACCT_18_Q_XYZ_GG_CCC_S_yxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

521 1234 c 1234 18 1 134 01 009 5 C4175551212 A*1234*
xxxxxxxx_c_ACCT_18_Q_XYZ_GG_CCC_S_yxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

521 1234 c 1234 18 1 134 01 009 5 C4175551212
xxxxxxxx_c_ACCT_18_Q_XYZ_GG_CCC_S_yxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

521 1234 c 1234 18 1 134 01 009 5 A*0123401234*1234*
xxxxxxxx_c_ACCT_18_Q_XYZ_GG_CCC_S_yxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

11 System Messages by Panel Family

The following table shows which system messages may be sent by which panel hardware family. They are divided into panel hardware family as described in the Serial 3 Alarm Panels section in the Introduction. The table lists all messages that can be sent by a receiver. If none of the panels listed send the message, it might be generated by the receiver or sent by an older panel that is not listed in the table.

Message #	Description	XT30 Family ¹	XR550/350/150	XR500/100
00	A.C. power restored	X	X	X
01	Standby battery restored	X	X	X
02	Communication line level restored		X	X
03	Panel tamper restored	X		
04	Backup communication line restored			
05	Panel ground restored			
06	Late to Close	X	X	X
07	Automatic recall test OK	X	X	X
08	WARNING: A.C. power failure	X	X	X
09	WARNING: Low standby battery	X	X	X
10	WARNING: Low communication line level		X	X
11	WARNING: Panel tamper	X		
12	WARNING: Panel backup communication fail			
13	WARNING: Panel ground fault			
14	WARNING: Non-alarm message overflow	X		
15	* * AMBUSH * *	X	X	X
16	WARNING: Panel not responding			
17	Panel response restored			
18	ALARM: Zone alarm overflow	X		
19	WARNING: New panel on line		X	X
20	Call xxxxxxxxxxx			
21	Automation Not Responding			
22	Automation Restored			
23	Panel test signal received	X	X	X
24	Undefined			
25	Undefined			
26	WARNING: Auxiliary fuse trouble			
27	Auxiliary fuse restored			
28	WARNING: Telephone line 1 trouble		X	X
29	Telephone line 1 restored		X	X
30	WARNING: Telephone line 2 trouble		X	X
31	Telephone line 2 restored		X	X
32	ALARM: Supervised wireless interference	X	X	
33	ALARM: Early Morning Ambush		X	X
34	WARNING: Alarm bell silenced	X	X	X
35	Alarm bell returned to normal			
36	Time / Date set by operator			
37	Undefined			
38	WARNING: Bell circuit trouble	X		
39	Bell circuit restored	X		
40	ALARM: Fire zone alarm overflow			
41	ALARM: Panic zone alarm overflow			
42	ALARM: Burglary zone alarm overflow			
43	WARNING: Bell fuse trouble			
44	WARNING: Fire-Burglary trouble overflow			
45	Abort signal received	X	X	X
46	Zone swinger automatically bypassed	X		
47	Zone swinger automatically reset	X		
48	WARNING: Low battery cutoff-LAST MESSAGE			
49	CANCEL signal received	X	X	X
50	WARNING: Supervised wireless trouble	X	X	
51	WARNING: Remote Programming		X	X
52	Undefined			
53	Bell fuse restored			
54	WARNING: Unsuccessful Remote Attempt	X	X	
55	Request for Alarm Receiver Key	X	X	X

56	Undefined			
57	Undefined			
58	ALARM: Control Panel Substitution			
59	WARNING: Substitution/CheckIn Overflow			
60	WARNING: Invalid panel message format			
61 - 65	Undefined			
66	System TEST mode begun	X	X	X
67	System TEST mode ended	X	X	X
68	Printer fail			
69	Printer restore			
70	End of History buffer	X		
71	Date time requested from control	X	X	X
72	WARNING: Network or Communication Path Trbl	X	X	X
73	Network Or Communication Path Restored	X	X	X
74	ALARM: Tamper during armed state	X		
75	ALERT: Early To Close	X		
76	ALERT: Late To Open	X		
77	ALERT: Unauthorized Entry	X	X	X
78	ALERT: System recently armed	X	X	X
79	ALERT: Signal during opened period			
80	ALERT: Exit error	X	X	X
81	WARNING: Network card trouble - Card c			
82	Network card restored - Card c			
83	Remote programming complete	X	X	X
84	Remote command received		X	X
85	Undefined			
86	WARNING: Local programming in progress	X	X	X
87	WARNING: Transmit Failed-Msgs Not Sent	X	X	X
88	Automatic recall OK - Unrestored system	X	X	X
89	Supervised wireless restored	X	X	X
90	WARNING: Unrecognized Message			
91	ALERT: Service Request	X	X	X
92	WARNING: No Arm/Disarm Activity	X		
93	ALARM: User Activity Not Detected	X	X	X
94	ALERT: Activity Check Enabled	X	X	
95	ALERT: Activity Check Disabled	X	X	
96	ALARM: Verify signal received	X	X	X
97	Network communication test OK		X	X
98	SCS1 Memory Full			
99	15 Minute System Check			
100	Automation Rejected a Message			
101	Device Missing		X	X
102	Device Restored		X	X
103 - 108	Undefined			
109	Panel Restart	X	X	X
110	Aux Power Fail			
111	Aux Power Restore			
112	DC Power Fail			
113	DC Power Restore			
114 - 115	Undefined			
116	On Demand Monitoring Started	X		
117	On Demand Monitoring Stopped	X		
118 - 120	Undefined			
121	ALERT: Cell Data Communication Excessive	X	X	X
122	WARNING: Cell Data Non-Alarm Suppress	X	X	X
123	ALARM: Cell Data Fire Alarm Suppress	X	X	X
124	ALARM: Cell Data Non-Fire Alarm Suppress	X	X	X

125	Cell Data Communication Fully restored	X	X	X
126	ALERT: Cell Rate Plan Exceeded			
127 - 129	Undefined			
130	WARNING: Cell Communicator Bus Failed			X
131	ALARM: Cell Communicator Bus Failed			X
132	Cell Communicator Bus Restored			X
133	WARNING: Cell Communicator DC Failed			X
134	Cell Communicator DC Restored			X
135	WARNING: Cell Communicator Low Battery			X
136	Cell Communicator Battery Restored			X
137	WARNING: Cell Communicator Tamper			X
138	ALARM: Cell Communicator Tamper			X
139	Cell Communicator Tamper Restored			X
140	TROUBLE OVERRIDE		X	
141 - 150	Undefined			
151	WARNING: Memory Usage pp% - ddddddd			
152	Undefined			
153	WARNING: Communication Trouble - Line cl			
154	WARNING: Line Card c pppppppp			
155	WARNING: Comm Line pppppppp - Line cl			
156 - 160	Undefined			
172	Undefined			
173	Undefined			

Notes

1. XT30 Family includes: XT30/50, all XTL and CellCom series panels

12 Revisions

These are the revisions since the last publication of this document (May 31, 2016). Throughout the document, the word "sub-message" was changed to "field" for clarification. The following list describes changes to specified sections of the document.

1. Serial 3 System Messages
 - Messages 116 and 117 defined for start and stop On Demand Monitoring