CS-4000 Release Notes Version 6.1.1

Document Number: 46-700 Rev. H
November 1997

About This Release Notes Package

This Release Notes package includes information about new UL information, new version 6.1.1 software, and how to install the software. These changes affect the *CS-4000 Central Station Receiver Installation and User's Manual* (46-056).

- Replace Appendix F Underwriters Laboratories Installations dated 7/24/91, 5/95, and July 1996 with Appendix F dated November 1997.
- Add Appendix N: CS-4000 Software Release 5.0
- Add Appendix O: CS-4000 Software Release 5.3
- Add Appendix P: CS-4000 Software Release 6.0
- Add Appendix Q: CS-4000 Software Release 6.1.1

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WIRELESS
Security
Automation
Access Control

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APPENDIX F: UNDERWRITERS LABORATORIES INSTALLATIONS

GENERAL - (all applications)

1) The CS-4000 DACR shall be used with the UL Listed Signaling Device Model DMP106, LX-810, or MicroLine 184 Turbo printers. The printer shall be mounted within 20 feet of the receiver. The Epson LX-810 printer shall employ the INMAC 8214 Surge Protector to protect the AC input. The Okidata MicroLine 184 Turbo shall be connected to a 120 VAC, 60 Hz line source through the listed Proxima Model S100 Suppressor.

2) The UL Listed Signaling Device p/n 218600201A keyboard shall be used.

3) The printers shall be connected to a Listed uninterruptible power supply and/or engine driven generator to provide 24 hours of required backup.

4) A spare receiver and annunciator shall be provided at the Central Station to comply with the requirements of a 30-second replacement.

5) At least two password levels shall be employed. The default master code shall be changed at installation.

6) The "Power Fault" options shall be left "ON."

7) The "Quiet" option shall be "OFF."

8) The "Alert" option shall be "ON."

9) The "Alert Interactive" option shall be "ON."

10) The "Alert Waiting" option shall be "ON."

11) The "Silent" option shall be "OFF."

12) Refer to Section 7.2 for those control units/formats which have been determined compatible by UL.

13) The "TRAP" command shall not be used for UL Listed ITI systems providing Home Health Care Signaling Service.

14) Operation of the CS-4000 DACR with peripherals other than the three printers above, has not been investigated by UL.

15) The alarm code conversions shall be made as described in Section 7.2.

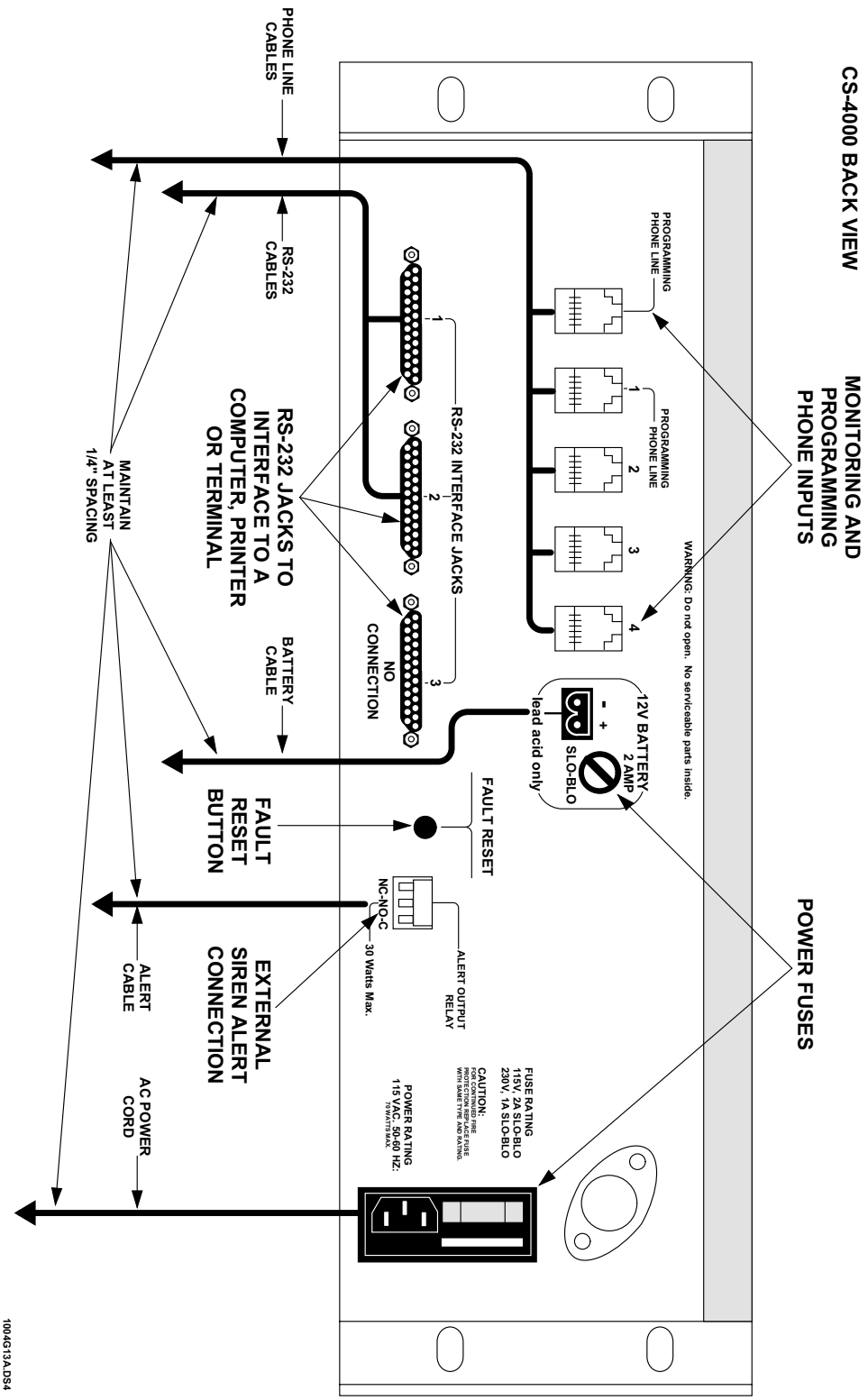
16) Connection to other equipment as determined by Underwriters Laboratories as being compatible shall be completed within 20 feet and in the same room as the CS-4000 DACR.

17) The RS-232 Interface Jack 3 has no connection. (This is an addition to the UL statements on page **i**.)

18) The diagram on the following page shows the required routing of field wiring, to and from the receiver.

Note: AC, battery, and alert output relay wiring shall be routed away from all other power limited wiring as shown in the diagram on the following page. A minimum of 1/4 inch spacing shall be maintained. It is recommended that the phone lines be bundled and tie-wrapped to maintain spacing for power limited wiring. (This is an update to the wiring on page **5**.)

CS-4000 Rear Connections and Components



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Appendix N: CS-4000 Software Release 5.0

About This Document

This document describes CS-4000 enhancements made in the CS-4000 Extended Memory Module software version 5.0 (80-105). This version provides full support for the Commander® 2000, and the Interrogator™ Alarm Verification Module. Refer to the *CS-4000 Installation and User's Manual* (46-056) and the appropriate control panel installation manuals for more details.

WARNING: Before installing this software, perform an MSTATUS command to obtain a printout of the CS-4000's current settings. If you are using the E31, E3X, E41, or E42 commands, obtain a printout of their settings also.

Note: Software version 5.0 will not work on a CS-4000 that does not have 64K of random-access memory (RAM). Make sure your CS-4000 is a part number 60-197-64K before attempting to install this software. If you do not have 64K, contact ITI Order Processing at 1-800-777-4841 for an upgrade.

Overview

The CS-4000 software version 5.0 includes the following enhancements:

- Commander 2000 support
- Enhanced CS-4000 commands
- Additional CS-4000 modifications
- Interrogator Alarm Verification Module support
- Communication locking support for the Commander 2000
- Expanded output formats

Commander 2000 Support

The CS-4000 software version 5.0 supports programming and reporting for the Commander 2000 Panel.

Programming the Commander 2000

The CS-4000 commands have been modified to support programming of the Commander 2000.

Table 1 shows the CS-4000 commands used to program the Commander 2000.

Table 1. CS-4000 Commands for the Commander 2000

Command	Parameters	Description
ACCESS *nnnn*	Any four numbers	Assigns access code *nnnn* to the Panel.
ACCOUNT *nn-nnn*	Any five letters or numbers	Assigns account number *nn-nnn* to the Panel.
BATTLIFE *n*	From 2 to 255	Assigns *n* hours for the Panel to run on battery backup before entering shutdown mode.
BYPASS *n*	From 1 to 18	Bypasses sensor *n*.
CPUTIME *n*	'SET'	Assigns the CS-4000's current time to the Panel.
	'STATUS'	Returns the Panel's time setting to the CS-4000.
DELETE *n*	From 1 to 18	Deletes sensor *n*.
	From 80 to 98, except 88 and 97	Deletes upper sensor *n*.
DURESS *nn*	Any two numbers	Assigns duress code *aann* to the Panel, where *aa* are the first two digits of the primary access code.
ENTRY *n m*	From 8 to 88	Rounds *n* seconds down to a multiple of eight and assigns as the standard entry delay.
	From 1 to 8	Assigns *m* minutes for extended entry and exit delay.
EVENT *n*	From 1 to 14	Displays event buffer information for the previous *n* events.
	'ALL' or ''	Displays all event buffer information.
	'CLEAR'	Empties the event buffer.
EXIT *n*	From 8 to 88	Assigns *n* seconds for exit delay, rounded to a multiple of 8.
GROUP *n m*	*n* from 1 to 18 *m* from 00 to 29	Assigns sensor number *n* to group *m*.
HOUSE *n*	From 1 to 255	Assigns house code *n* to the Panel.
INITIALIZE *n*	18	Adds sensor 18 to the system configuration.
	From 80 to 98, except 88, and 97	Adds upper sensor *n* to the system configuration.
MACCESS *m nnnn*	*m* from 1 to 5 *nnnn* any four numbers	Assigns secondary access code *nnnn* to secondary access code user *m*.
OPTION F*n m*	*n* from 20 to 27 *m* either ON or OFF	Turns ON or OFF feature number *n*. See Table 2 for feature number information.
PFORMAT *n*	From 0 to 2	Assigns phone communication format *n* for central station reporting. See Table 3 for PFORMAT parameter descriptions.
PHONE *n*	Up to 18 digits, including *, #, and D.	Assigns phone number *n* to the primary phone number, with 3-second pauses for each D.
	'OFF'	Removes the primary phone number.
PHONE2 *n*	Up to 18 digits, including *, #, and D.	Assigns phone number *n* to secondary phone number, with 3-second pauses for each D.
	'OFF'	Removes the secondary phone number.
PLEVEL *n*	1, 2, or 3	Arms the Panel to Level *n*.
	8 or 9	Enters the Panel into test mode *n*.

Table 1. CS-4000 Commands for the Commander 2000 (Continued)

Command	Parameters	Description
PMODE *n*	From 0 to 5	Enables phone mode *n*. See Table 4 for PMODE parameter descriptions.
PTFREQ *n m*	*n* from 1 to 255	Assigns automatic phone test frequency to once every *n* days.
	m less than or equal to *n*	Assigns *m* as the days remaining until the next phone test.
RELEASE	n/a	Releases the trapped panel, as well as the phone line.
RESTORE *n*	From 1 to 18	Restores bypassed sensor *n*.
SIREN *n*	From 2 to 15	Assigns *n* minutes as the siren time out.
STIME *n*	Military time, from 0000 to 2359	Assigns military time *n* hours for the next 24-hour supervisory.
SUPSYNC *n*	From 2 to 24	Assigns *n* hours for supervisory check-in period.
ZONES	n/a	Displays all zone information.

Table 2. Commander 2000 Feature Numbers

Feature		Condition		
Nbr	Name	ON	OFF	Default
F20	Interrogator	Interrogator Module is enabled.	Interrogator Module is disabled.	OFF
F21	DC Power Supply	DC line power is monitored.	AC line power is monitored.	OFF
F22	Dialing format	DTMF dialing format is used.	Pulse dialing format is used.	ON
F23	Event Buffer	Only retains openings and closings.	Retains all events.	OFF
F24	Hardwire input state	Normally open (N/O).	Normally closed (N/C).	OFF
F26	Command button disarm	Quick disarm (CMD + 1) is enabled.	Quick disarm is disabled.	OFF
F27	Panel alarm mute	Panel does not make siren output.	Panel makes siren output.	OFF

Note: Feature numbers F0-F17 are not compatible with the Commander 2000.

Table 3. Phone Formats

PFORMAT *n*	Description
0	ITI
1	4/2, 1400 Hz
2	4/2, 2300 Hz

Table 4. Phone Modes

PMODE *n*	Description
0	All calls report to phone 1. Phone 2 is never used.
1	All calls report to phone 1. On failure, calls report to phone 2.
2	Alarms and cancels report to phone 1. Supervisories and low batteries report to phone 2.
3	Alarms and cancels report to phone 1. All calls report to phone 2.
4	Alarms and cancels report to phone 1, but not open/close reports. All calls report to phone 2.
5	Alarms and cancels report to phone 1 in 4/2 format. All calls report to phone 2.

Reporting from the Commander 2000

The CS-4000 software has been modified to accept sensor and upper sensor reports from the Commander 2000.

Sensor Reports

A panel reports several kinds of conditions to the CS-4000. Table 5 shows the possible reports from a Commander 2000. Sensor numbers range from 01 to 18 and are represented by *nn* below.

Table 5. Sensor Reports from the Commander 2000

Sensor Report	Report Condition
nn Alarm!	Armed sensor *nn* is tripped.
nn Alarm Tamper	Cover is removed on armed sensor *nn*.
nn Cancelled	Alarm from tripped sensor *nn* is cancelled by a user.
nn Exit Fault	Exit door sensor *nn* is not closed at the end of the exit delay.
nn Low Battery	Sensor *nn* has a low battery.
nn Supervisory	SUPSYNC time has expired, and no transmission has been received from sensor *nn*.
nn Trouble	The EOLR on a hardwire loop is tripped.

Upper Sensor Reports

A panel sends an upper sensor report to the CS-4000 when the corresponding upper sensor number is ON and the report condition is encountered. Table 6 shows the condition that must exist for the upper sensor reports sent by the Commander 2000.

Table 6. Upper Sensor Reports from the Commander 2000

Upper Sensor Report	Default	Report Condition
80 Alarm!	ON	Pressing the FIRE emergency button.
81 Alarm!	ON	Pressing the POLICE emergency button.
82 Alarm!	ON	Pressing the AUXILIARY emergency button.
83 Phone Test	ON	Phone test mode.
84 Opening Report User #	OFF	User # disarms the system.
85 Closing Report User #	OFF	User # arms the system.
86 Alarm! Silent Duress!	ON	Entering the duress code, followed by any arming level.
87 Auto Force Armed 87 Force Armed	OFF	The system automatically bypasses a sensor after the panel protests an open sensor during arming. The user indirectly bypasses a sensor when the panel protests an open sensor during arming.
89 Low Battery Unit # 89 Supervisory Unit #	OFF	Touchpad unit # has a low battery. Touchpad unit # has not reported for SUPSYNC time.
90 AC Power Failure 90 Alarm Restoral	OFF	The Panel's AC power is interrupted for 15 minutes. AC power is restored after a failure.
91 CPU Shut Down 91 Low CPU Battery 91 Alarm Restoral	ON	On battery backup, one minute before BATTLIFE expires. The Panel detects a low battery. The Panel detects a good battery, after a low battery was detected.
92 Alarm! Tamper Loop	ON	The cabinet tamper is tripped while the Panel is armed to level 2 or 3.
93 Automatic Phone Test	OFF	Automatic phone test, which occurs at a predetermined interval.
94 Receiver Failure!	ON	The Panel does not receive a transmission from any transmitter for two hours.
95 CPU Back in Service	OFF	AC power is restored after the Panel has gone into shutdown mode.
98 Auto Event Dump †	OFF	The event buffer automatically dumps after storing 12 events.

† After the CS-4000 displays this message, the CS-4000 automatically instructs the panel to report all events and then clears the panel event buffer.

Enhanced CS-4000 Commands

The CS-4000 software version 5.0 includes modifications to previously available commands and the new DAYSAVE command.

Modified CS-4000 Commands

The modified CS-4000 commands and their changes are shown in Table 7.

Table 7. Modified CS-4000 Commands

Command	Change
BLIFE, or BATTLIFE	1. New valid range for the RF Commander® is 1-126. 2. Command not allowed for RF Commander (rev. 2.5 and earlier).
CHANNEL *n* VERSION *mm*	CHANNEL *n* command now has the VERSION option. Valid *mm* options are V4 and V5, V5 being the default. †
DELETE	Command can now be entered as DEL.
E31, E3x, E41, E42	Added PHONETEST to the list of assignable keywords.
GROUP	Group 29 is now valid for CareTaker® *Plus* (rev. 2).
HOUSE	House code 0 is not allowed for CareTaker *Plus* (rev. 2).
OPTION	F21 and F22 are now valid for the CareTaker *Plus* (rev. 2). See Table 8 for feature number information.
PHONE	1. Panels dialing in DTMF format accept * and # values. 2. PHONE OFF command does not remove phone if PMODE 5 is set.
PHONE2	1. Panels dialing in DTMF format accept * and # values. 2. PHONE2 OFF command does not remove phone 2 if PMODE 5 is set. ‡
PMODE	Phone 1 and 2 must exist to change to PMODE 5.
SUPSYNC	CareTaker *Plus* new valid range is: 2-24.
ZONES	Eliminated display of battery and open/close messages for nonapplicable upper sensor numbers.

† V5 configures new output codes for the CS-4000 version 5.0 software enhancements. V4 configures output codes similar to the CS-4000 version 4.0 software output codes. See "Expanded Output Formats" for details on the enhancements.

‡ This prevents accidental elimination of calls to the only phone number assigned the ITI format.

Table 8. Additional CareTaker *Plus* (rev. 2) Feature Numbers for the OPTION Command

Feature		Condition		
Nbr	Name	ON	OFF	Default
F21	Supervisory trouble beeps	Supervisories generate immediate beeps.	Supervisories generate delayed beeps.	OFF
F22	Dialing format	DTMF dialing format is used.	Pulse dialing format is used.	OFF

DAYSAVE Command

The DAYSAVE command allows the CS-4000 to automatically adjust its system time for daylight saving time. When this command is set to ON, the CS-4000 adjusts forward one hour at 2:00 a.m. on the first Sunday of April and backward one hour at 2:00 a.m. on the last Sunday of October.

Table 9. DAYSAVE Command

Command	Parameters	Description	Default
DAYSAVE *nnn*	ON or OFF	Turns ON or OFF automatic adjust feature for daylight saving time.	ON

Additional CS-4000 Modifications

The CS-4000 software version 5.0 provides additional CS-4000 modifications, including reporting limits and ring detection.

Reporting Limits

Reporting limits prevent any single panel from tying up a phone line for an extended period of time. When the report limit is reached, the CS-4000 releases the phone line and displays "REACHED REPORT MAXIMUM."

Non ITI Reporting Formats

The following non ITI communication formats are supported by the CS-4000:

- 3/1
- 3/1 extended
- 4/1
- 4/2
- BFSK

The reporting limit for non ITI formats is eight reports per call. The CS-4000 releases the phone line after sending eight report acknowledgments to a panel.

Note: The CS-4000 releases 3/1 extended format after four reports, because the format requires two acknowledgments per report.

ITI Reporting Format

The CS-4000 displays a maximum of 128 messages for a single call, then the CS-4000 releases the line.

Ring Detection

The CS-4000 software version 4.0 introduced the RNGCAD command, used to customize the telephone ring cadence. The default U.S. ring cadence for version 4.0 instructs the CS-4000 to answer on the second ring. Version 5.0 software also supports the RNGCAD command, but the default U.S. ring cadence now instructs the CS-4000 to answer on the first ring. As in version 4.0, if a customized cadence is used, the default can always be restored with the USARING OKAY command. When the U.S. default cadence is used, the CS-4000 displays "Phone Cadence set to US ring" in response to the RNGCAD STATUS command.

Interrogator Alarm Verification Module Support

The CS-4000 software version 5.0 supports the Interrogator Alarm Verification Module (Interrogator Module). For detailed information on the Interrogator Module, see the *Interrogator Alarm Verification Module Installation Manual* (46-591). The Interrogator and CS-4000 accomplish alarm verification through the following functions:

- Modes of verification
- Selecting reports for verification
- Interrogator Module commands
- Input channel control codes
- Panel traps

Modes of Verification

The CS-4000 supports any of the following verification modes:

- Dialout allows the Interrogator Module to call out to a predetermined phone number.
- One-ring allows the Interrogator Module to respond to a phone call from the central station operator.
- Instant allows the central station operator to immediately establish a phone line connection to the Interrogator Module and verify the alarm.

WARNING: All enabled Interrogator Modules must be programmed to use the same alarm verification mode as the monitoring CS-4000, with the exception of Interrogator Modules used with the CareTaker *Plus* (ver. 2). The CareTaker *Plus* (ver. 2) is currently the only panel that reports its verification mode to the CS-4000 at the time of an alarm. All other panels that are flagged for verification automatically use the verification mode selected with the CS-4000's AUDIO command, described in "Interrogator Commands."

The CS-4000 will continue to process Panel reports as in the past, but at the same time account numbers are examined to determine if they have been selected for alarm verification. The new ATRAP command allows the operator to select a panel for alarm verification by entering the account number into the ATRAP table maintained by the CS-4000. When a panel is selected for alarm verification, one of the procedures described below allows verification.

Using the Dialout Mode:

1) The CS-4000 hangs up immediately after processing the report.

2) The CS-4000 displays "Dialout Listen Mode! Line *nn*." RS232 channels formatted to ITICOMP or GENERIC include a field indicating dialout mode, if CHANNEL *n* VERSION V5 is set.

3) The operator then receives a call from the Interrogator Module.

4) After the operator answers, Interrogator control commands can be entered through the phone, and the alarm can be verified.

Using the One-Ring Mode:

1) The CS-4000 hangs up immediately after processing the report.

2) The CS-4000 displays "One-ring Listen Mode! Line *nn*." RS232 channels formatted to ITICOMP or GENERIC include a field indicating one-ring mode, if CHANNEL *n* VERSION V5 is set.

3) The operator must then call the Interrogator Module back.

4) The Interrogator Module answers after one ring and the operator can now enter control commands through the phone and verify the alarm.

Using the Instant Mode:

1) The CS-4000 does not hang up after processing the report.

2) The CS-4000 instructs the panel to hang up and the Interrogator Module takes the line before it is released.

3) The CS-4000 displays "Instant Listen Mode! Line nn," and AUDIO is shown in the CRT phone window for line *n*. RS232 channels formatted to ITICOMP or GENERIC include a field, indicating instant mode, if CHANNEL *n* VERSION V5 is set.

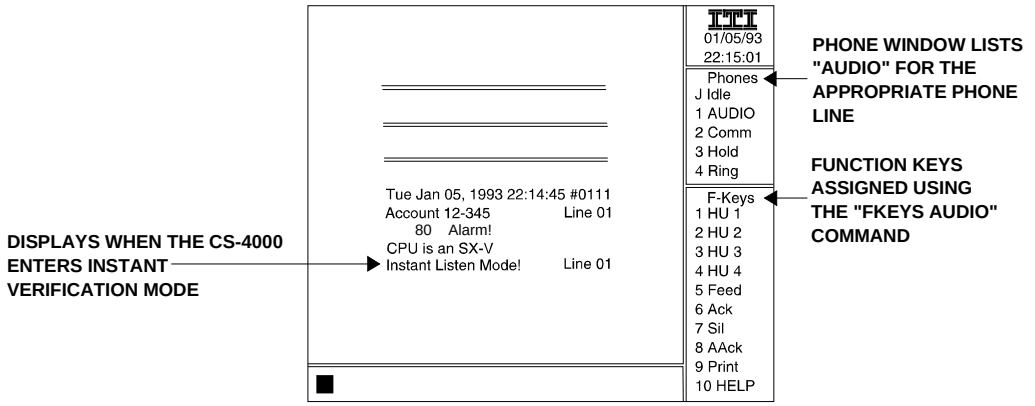

Figure 1. CS-4000 CRT display when using instant verification mode on phone line 1.

4) The central station operator must pick up the handset and instruct the CS-4000 to release the phone line. This releases the CS-4000 and establishes a connection between the handset and the Interrogator Module. CS-4000 phone release occurs, and "LINE *nn* RELEASED" displays when one of the following happens (see "Interrogator Commands" for details on each command):

- The FKEYS AUDIO command is set and the operator presses the keyboard function key, F1-F4, corresponding to the line being used.
- The operator enters the HANGUP *n* command.
- The ATIME (05-60 seconds) set by the operator expires.

Notes: a. The HANGUP command does not take precedence over receiving report information. Commands are only performed after all panel reports are processed. During periods of heavy communication, it is possible for the Interrogator Module or ATIME to time out before the HANGUP command is performed, resulting in an error message.

b. The operator must establish a connection with the Interrogator Module before the CS-4000 places the phone line on-hook. If the operator fails to pick up the handset before the CS-4000 places the phone line on-hook, the operator may not be able to verify the report.

5) The operator can now enter Interrogator control commands through the phone and verify the alarm.

Selecting Reports for Verification

The CS-4000 only selects panels for alarm verification if the panel's report meets certain selection criteria.

To Select SX-V Reports:

1) The panel's account number must be in the ATRAP table.
2) The report must contain an alarm, with the following exceptions:
- Alarm reports for zones 0, 1, and 12-17 are ignored.
- Alarm reports for zones assigned to groups 11, 13, and 15 are ignored.

3) The verification mode must be set with the AUDIO command.

To Select CareTaker *Plus* (ver. 2) Reports:

The panel report tells the CS-4000 if the Interrogator Module is enabled and the verification mode to use.

Notes: a. The CS-4000 uses the verification mode specified in the panel report, not necessarily the mode set by the AUDIO command.

b. The CS-4000 selects the panel for listen-in, regardless of whether the panel's account number is in the ATRAP table.

To Select Commander 2000 Reports:

1) The panel report tells the CS-4000 if the Interrogator Module is enabled.
2) The verification mode must be set with the AUDIO command.

To Select All Other Panel Reports:

1) The account number is in the ATRAP table.
2) The verification mode must be set with the AUDIO command.

Note: The panel is selected for listen-in regardless of the actual report information.

To Exclude Panel Reports from Selection:

Enter the panel's account number into the audio exclusion table using the AEXCLUDE command, described in "Interrogator Commands." The panel will not be selected for listen-in, regardless of the report content or the presence of the account number in the ATRAP table.

Interrogator Commands

The following CS-4000 commands are new with software version 5.0 and support the Interrogator Module. The new commands are not interactive commands, with the exception of the HANGUP command.

ATRAP Command

Currently, the only panels that indicate the presence of an Interrogator Module to the CS-4000 are the Commander 2000 and the CareTaker *Plus* (ver. 2.0.) For all other panels, the CS-4000 checks the AUDIO TRAP (ATRAP) table to determine if an Interrogator Module is connected. This is done in much the same way the CS-4000 checks the regular TRAP table to determine whether to release the panel at the end of a report. The ATRAP table identifies panels with the Interrogator Module and holds up to 100 account numbers. Table 10 summarizes the ATRAP command.

Table 10. ATRAP Command

Command	Parameters	Description
ATRAP *nn-nnn*	Any five letters or numbers	Assigns account number *nn-nnn* to the ATRAP table.
ATRAP *nn-n***	Any five letters or numbers, including * wild cards	Assigns account number *nn-n*** to the ATRAP table. Wild cards assign all letters and numbers.
ATRAP *nn-nnn* OFF	Any five letters or numbers, followed by OFF	Removes *nn-nnn* from the ATRAP table.
ATRAP ALL	ALL	Assigns account number **-*** to the ATRAP table.
ATRAP OFF	OFF	Clears the ATRAP selection table.

Notes: a. The ATRAP command is not necessary with the Commander 2000 or CareTaker *Plus* (ver. 2), which report to the CS-4000 when the Interrogator Module is enabled.

b. Unlike the TRAP table, the ATRAP table account numbers are not removed until they are explicitly removed with the ATRAP *nn-nnn* OFF command.

AEXCLUDE Command

The AEXCLUDE command enters account numbers into the AEXCLUDE table. The AEXCLUDE table holds up to ten account numbers. An entry in the AEXCLUDE table identifies account numbers to ignore when selecting reports for alarm verification, regardless of the report content or the presence of the account number in the ATRAP table. Table 11 summarizes the AEXCLUDE command.

Table 11. AEXCLUDE Command

Command	Parameters	Description
AEXCLUDE *nn-nnn*	Any five letters or numbers	Assigns account number *nn-nnn* to the AEXCLUDE table.
AEXCLUDE *nn-nnn* OFF	Any five letters or numbers, followed by OFF	Removes *nn-nnn* from the AEXCLUDE table.

AUDIO Command

The AUDIO command assigns the CS-4000 alarm verification mode for Interrogator Module support. Table 12 summarizes the AUDIO command.

Table 12. AUDIO Command

Command	Parameters	Description	Default
AUDIO *n*	INSTANT, DIALOUT, ONERING, or OFF	Assigns *n* as the CS-4000 alarm verification mode.	OFF

WARNING: All enabled Interrogator Modules must be programmed to use the same alarm verification mode as the monitoring CS-4000, with the exception of Interrogator Modules used with the CareTaker *Plus* (ver. 2), which reports the verification mode. If the verification modes are different, the operator may not be able to verify the report using the Interrogator Module.

Note: When the AUDIO OFF command is set, the CS-4000 ignores all audio verification, including reports from CareTaker *Plus* (ver. 2) and Commander 2000 panels.

ATIME Command

The ATIME command assigns the maximum length of time the CS-4000 keeps a phone line off-hook for instant mode. Refer to "Using the Instant Mode" for a complete list of ways to place the phone line on-hook. Table 13 summarizes the ATIME command.

Table 13. ATIME Command

Command	Parameters	Description	Default
ATIME *n*	From 5 to 60	Assigns *n* seconds for instant listen-in mode to be initiated.	30

Note: Although ATIME allows a phone line to be off-hook for up to 60 seconds, verification must be initiated within 30 seconds when using the Interrogator Module by pressing the ◗ button on the central station phone used for verification.

Currently, the Interrogator Module waits 30 seconds for the operator to press the ◗ button. If the ◗ button is not pressed within 30 seconds, the Interrogator Module hangs up. Consequently, setting ATIME to anything greater than 30 seconds may result in the Interrogator Module releasing the phone line before ATIME expires. The ATIME range has a maximum of 60 seconds to allow for future enhancements to the Interrogator Module.

FKEYS Command

The FKEYS command selects the function key definition, either AUDIO or DEFAULT. With the FKEYS AUDIO command set, the audio function key definition allows keys F1-F4 to instruct the CS-4000 to hang up phone lines 1-4 respectively, when in instant verification mode. With the FKEYS DEFAULT command set, the function key definition is the same as with all previous versions of the software. Table 14 summarizes the FKEYS command.

Table 14. FKEYS Command

Command	Parameters	Description	Default
FKEYS *n*	'AUDIO' or 'DEFAULT'	Selects *n* as the function key definition.	DEFAULT

Table 15 lists the function key definition for AUDIO and DEFAULT.

Table 15. Function Key Definition

FKEYS	AUDIO †	DEFAULT
F1	Hang-up line 1	Line Feed
F2	Hang-up line 2	Acknowledge
F3	Hang-up line 3	Silence
F4	Hang-up line 4	Acknowledge All
F5	Line Feed	Previous Command
F6	Acknowledge	Next Command
F7	Silence	Not Used
F8	Acknowledge All	Not Used
F9	Print	Print
F10	Help	Help

† Scrolling to the previous and next command is allowed with the INSERT and DELETE keys, respectively.

HANGUP Command

The HANGUP command places the specified phone line on-hook. The HANGUP command is summarized in the following table.

Command	Parameters	Description	Default
HANGUP *n*	1, 2, 3, or 4	Places phone line *n* on-hook, when the CS-4000 line *n* is in instant mode.	n/a

WARNING: The HANGUP command does not take precedence over receiving report information. During periods of heavy communication, the HANGUP command is only performed after all panel reports are processed. The Interrogator Module or ATIME may time out before the HANGUP command is performed, resulting in an error message.

Input Channel Control Codes

Control codes may be sent to the CS-4000 from an external device via any of the three RS-232 channels. The version 5.0 software recognizes certain control codes that can place a telephone line on-hook for instant verification mode. This works just like the HANGUP command, or keys F1-F4 with the FKEYS AUDIO command set. These control codes can be ASCII *Ctrl + letter* codes or ordinary characters, depending on the ON/OFF setting of the CHANNEL *n* CTRLKEYS *m* command. Table 16 summarizes the CHANNEL CTRLKEYS command.

Table 16. CHANNEL CTRLKEYS Command

Command	Parameters	Description	Default
CHANNEL *n* CTRLKEYS *m*	*n* from 1 to 3 *m* either ON or OFF	Turns on or off CHANNEL n CTRLKEYS.	OFF

The following example shows the syntax of the CHANNEL CTRLKEYS command.

Example: CHANNEL *n* CTRLKEYS *m*, where *n* is the number of the desired RS232 channel and *m* is the desired control code setting.

Table 17 shows the control codes for placing the phone line on-hook.

Table 17. Input Channel Control Codes

Function	CHANNEL *n* CTRLKEYS OFF	CHANNEL *n* CTRLKEYS ON
Hang-up Line 1	^D	(
Hang-up Line 2	^E	)
Hang-up Line 3	^N	<
Hang-up Line 4	^O	>

Panel Traps

When a panel is selected for Interrogator support, normal traps set with the TRAP command are ignored for that report, allowing alarm verification. The CS-4000 displays the message "Audio Report! Trap Ignored!" However, these account numbers remain in the TRAP table. If the panel calls again without a verification report, the TRAP will operate normally.

Communication Locking Support for the Commander 2000

The CS-4000 software version 5.0 supports communication locking (CommLock) for the Commander 2000. CommLock enables a dealer to ensure that customer accounts are not lost to another monitoring service. CommLock offers two independent locking methods:

- Phone Lock
- Central Station Lock

Note: A panel can operate without a locking method, or with either locking method; however, a panel cannot use both methods simultaneously. If the panel's dealer programming code is not the default, the CS-4000 will not enable Central Station Lock for that panel. If the panel's security code is not the default, the panel will not allow changes to the dealer programming code and will only communicate with the CS-4000 with the matching security code. The CS-4000 will continue to communicate with older panels as in the past.

WARNING: Erasing panel memory does not reset CommLock. Other than using the methods provided to remove a lock, normal panel access can only be restored and CommLock can only be reset by sending the panel to ITI for repair.

WARNING: Communication Locking is a powerful feature. Misuse can result in the loss of report monitoring for communicating panels.

Phone Lock

The Commander 2000 has two programming codes that allow entry into local program mode from a touchpad. The dealer programming code allows the dealer to change all programmable values. The installer programming code allows the installer to change all values, except the dealer programming code and the primary phone number.

When the installer code is used, the dealer programming code and the primary phone number are protected, and the installer can perform all other panel programming.

WARNING: When Phone Lock is used, the primary phone number and dealer programming code can only be changed using the dealer programming code.

WARNING: Phone Lock is a powerful feature. Misuse can result in the loss of report monitoring for communicating panels.

Protection at the Panel

The dealer programming code can be changed from its default to any sequence of four digits. Changing the dealer programming code requires the new code to be entered twice.

If the two codes are not entered exactly the same, the panel indicates that the entered code is incorrect, and the programming code is not changed. This procedure prevents any inadvertent programming code changes. Refer to the panel's reference manual for instructions on changing dealer programming code.

Protection at the CS-4000

The PLOCK command allows the CS-4000 operator to change the panel's dealer programming code, if the current code is known. The following example shows the command necessary to change dealer programming code 4321 to 8765 from the CS-4000.

Example: PLOCK 4321 %87658765

The CS-4000 handles the new code the same way as operator passwords. The new code must be preceded by a % symbol, which causes the CS-4000 to mask the code input with *. The dealer programming code is never displayed or printed. The CS-4000 displays "CPU Dealer Programming Code Changed" when the command is entered correctly.

Phone Lock is removed by programming the dealer programming code to the default code of 4321. Table 18 summarizes the PLOCK command.

Note: The PLOCK command does not work on panels already using Central Station Lock.

Table 18. PLOCK Command

Command	Parameters	Description	Default
PLOCK *aaaa %nnnnnnnn*	Any four numbers, repeated.	Assigns *nnnn* to the dealer programming code, which was *aaaa*.	4321

Central Station Lock

When a CS-4000 communicates with a panel, the CS-4000 must send a valid security code before the panel will report. Central Station Lock allows the CS-4000 operator to define a primary security code to be used in the reporting sequence. Once the primary security code is set, the CS-4000 may be instructed to update reporting panels to respond to this code instead of the default security code.

The CS-4000 maintains a table of panel accounts for security code updates. The CS-4000 uses this table to select reporting panels for automatic security code updates.

Once updated, panels require the primary security code from the CS-4000 before they will report. If the CS-4000 sends the wrong security code, the panel and CS-4000 hang up. The CS-4000 displays "Improper Security Code," as well as the panel account information.

Note: The CS-4000 will always communicate with panels using the default security code and will continue to communicate with older panels as in the past.

WARNING: Central Station Lock features must be used with care. Misuse can result in the loss of panel communication with the CS-4000. Security codes are never displayed, so it is critical to prevent unintentional code changes. As a precaution, write down all security codes and maintain the list in a safe location.

WARNING: Central Station Lock is a powerful feature. Misuse can result in the loss of report monitoring for communicating panels.

Using Central Station Lock:

1) Define the CS-4000's primary security code using the CSLOCK DEFINE command.

2) Select a security code update mode with one of the following commands:

- CSLOCK SET instructs the CS-4000 to set the selected panels to the primary security code.
- CSLOCK REMOVE instructs the CS-4000 to remove the primary codes from the selected panels and set the panel to the default security code.
- CSLOCK OFF prevents the CS-4000 from updating the security code of reporting panels.

Notes: a. CSLOCK can only be set to one mode at a time: SET, REMOVE, or OFF. The CS-4000 cannot simultaneously update some panels to accept the primary security code (CSLOCK SET), and others to accept the default security code (CSLOCK REMOVE).

b. Panels can communicate to a CS-4000 if:

- The Panel's CSLOCK is off (default).
- The Panel's Security Code matches the CS-4000 Primary Security Code.
- The Panel's Security Code matches a code in the CS-4000 SCODE Table.

3) Select panel account numbers for security code updates, using the CSLOCK SELECT command.

Note: If the security code update mode is set to CSLOCK OFF, panels selected with CSLOCK SELECT will not be updated. CSLOCK OFF disables the security code update so it is not necessary to remove all the accounts from the selection table.

WARNING: The CSLOCK RESET OKAY command resets the CS-4000's primary security code. Panels using the old code can no longer report to the CS-4000.

Using the CSLOCK Command

The CSLOCK command is a receiver configuration command. Entered once at the CS-4000, it remains in effect until another command resets the instruction. CSLOCK command instructions are automatically followed every time a report is made to the CS-4000.

WARNING: CSLOCK is a powerful command. Misuse can result in the loss of report monitoring for communicating panels.

Table 19 shows how to use the CSLOCK command to:

- Define the CS-4000's primary security code.
- Select panel account numbers for security code updates.
- Reset the CS-4000 Central Station Lock configuration.

Table 19. CSLOCK Command

Command	Parameters	Description
CSLOCK DEFINE %*nnnnnnnnnn*	Any five numbers or letters, repeated.	Defines *nnnnn* as the CS-4000's primary security code.
CSLOCK SELECT *nn-nnn*	Any five numbers, including * wild-cards.	Selects account number *nn-nnn* for security code updates. The CSLOCK selection table holds up to 25 different account numbers.
	ALL	Selects all accounts for security code updates.
	OFF	Clears the CSLOCK table, and selects 00-000.

Note: The primary security code must be entered twice, with no spaces, for the CSLOCK DEFINE command. The % character instructs the CS-4000 to mask the code on the CS-4000 display or when printed.

Error messages display and no changes are made when using the CSLOCK DEFINE command and:

- The new Primary Security Code is not entered correctly twice.
- The security code already exists in the SCODE Table.
- The security code is the default code.

Selecting a Security Code Update Mode

Table 20 shows how the CSLOCK command is used to select the security code update mode.

Note: The security code update mode can only be set to one mode at a time: SET, REMOVE, or OFF.

Table 20. CSLOCK Command for Selecting the Security Code Update Mode

Command	Parameters	Description
CSLOCK	SET	Places the CS-4000 in a mode that updates reporting panels with the primary security code, enabling Central Station Lock for those panels.
	REMOVE	Places the CS-4000 in a mode that updates reporting panels with the default security code, disabling Central Station Lock for those panels.
	OFF	The CS-4000 sends the appropriate security code, but will not update the panel's code.
CSLOCK RESET OKAY †	n/a	Resets the CS-4000's primary security code to the default and places the CS-4000 in CSLOCK OFF mode.

† This command resets the CS-4000 Central Station Lock configuration and the CS-4000's primary security code to its default. Panels using the old code can no longer report to the CS-4000.

Examples of Central Station Locking

Scenario One: You have just completed the CS-4000 upgrade to version 5.0 software, and you wish to use central station lock on all panels that support the feature.

Note: The Commander 2000 is the only panel that currently supports CommLock.

To configure central station lock on all reporting panels:

1) Define the CS-4000's primary security code, using the CSLOCK DEFINE command. For this example, we will define the primary security code as ABCDE.

Example: CSLOCK DEFINE %ABCDEABCDE

The CS-4000 displays "Primary Security Code Changed!"

2) Select the accounts you want the CS-4000 to update with the primary security code, ABCDE. The scenario calls for all panels to be included, so use the CSLOCK SELECT ALL command.

Example: CSLOCK SELECT ALL

3) Select the security code update mode. The CSLOCK SET command instructs the CS-4000 to update all selected panels from the default security code to ABCDE, when the panels report.

Example: CSLOCK SET

When a panel calls the CS-4000 with any report, the CS-4000 automatically updates the selected panel's security code to the code defined in step 1, ABCDE. The CS-4000 displays "Updating CS-LOCK for Panel."

Scenario Two: Building on the steps performed in scenario one, two panels have reported and been updated to use the primary security code, and you wish to prevent any other panels from being updated.

To prevent locking panels:

- Change the security code update mode. The CSLOCK OFF command prevents the CS-4000 from updating the reporting panel's security code. The CS-4000 will still accept reports from panels using the default security code, the CS-4000's primary security code, or any security code in the SCODE table.

  Example: CSLOCK OFF

  Note: The CS-4000 continues to send the primary security code, ABCDE, to the panels that have already been updated.

Scenario Three: Building on the steps performed in scenario one and two, you wish to remove the lock from the two panels that were updated to use the ABCDE security code.

- Change the security code update mode. The CSLOCK REMOVE command instructs the CS-4000 to remove the panel's security code and set it back to the default code.

  Example: CSLOCK REMOVE

  When a panel reports to the CS-4000 using security code ABCDE, the CS-4000 automatically removes the code and sets the panel back to use the default security code.

Adding Accounts with Central Station Lock

The SCODE command allows the CS-4000 to use different security codes with the Central Station Lock feature. This command may be used when you take on another CS-4000's accounts, and the panels already have security codes assigned for Central Station Lock. These panels will receive an invalid security code when calling your CS-4000; consequently, no report will be made. For this reason, the SCODE table exists to keep track of security codes used by these panels.

Managing the SCODE Table:

1) Add security code *n* to the SCODE table with the SCODE ADD *n* command.

2) Add security code *n* to the SCODE table and enable the CS-4000 to update the security codes of panels using this code with the SCODE UPDATE *n* command.

Note: The SCODE UPDATE command is subject to the CS4000's security code update mode, which is enabled with the CSLOCK command. If CSLOCK SET is enabled, the panel's security code is updated to the CS-4000's primary security code. If CSLOCK REMOVE is enabled, the panel's security code is updated to the default security code. If CSLOCK OFF is enabled, the panel's security code is not updated.

3) Remove security code *n* from the SCODE table with the SCODE OFF *n* command.

WARNING: Security codes maintained in the SCODE table cannot be displayed or printed. As a precaution, write down all security codes and maintain the list in a safe location.

Using the SCODE Command

Table 21 summarizes the SCODE command, which is used to manage the SCODE table. The SCODE table holds up to 25 security codes, unique form the CS-4000's primary security code, and the default security code.

Table 21. SCODE Command

Command	Parameters	Description
SCODE ADD *%nnnnnnnnnn*	Any five numbers and letters, repeated.	Adds security code *nnnnn* to the SCODE table, without allowing the CS-4000 to update the panel's security code.
SCODE UPDATE *%nnnnnnnnnn*	Any five numbers and letters, repeated.	Adds security code *nnnnn* to the SCODE table and allows the CS-4000 to update the panels using this code.
SCODE OFF *%nnnnnnnnnn*	Any five numbers and letters, repeated.	Removes the security code *nnnnn* from the SCODE table.
SCODE RESET OKAY †	n/a	Removes all security codes from the SCODE table.

†This command removes all security codes from the SCODE table.

Example of Using the SCODE Command

Scenario Four: Building on the steps performed in "Example of Central Station Locking," your central station is taking on some new accounts that were previously monitored by a different CS-4000 that was using the central station lock feature. The panels were assigned the security code GAFER by the other CS-4000, and you want to update them to use your CS-4000's primary security code.

To update a new security code:

- Add the new security code, GAFER, to the SCODE table. The SCODE UPDATE command allows you to add a security code to the SCODE table and instructs the CS-4000 to update panels using this code.

  Example: SCODE UPDATE %GAFERGAFER

  When a panel using the security code GAFER reports, and the CS-4000's security code update mode is SET, the CS-4000 automatically updates the panel's security code to ABCDE, the CS-4000's primary security code. If the security code update mode is REMOVE, the panel's security code is automatically removed and the code is updated to the default.

Scenario Five: Building on the steps performed in scenario four, your central station is also taking on other accounts. The new accounts have the security code BRETT and do not want it changed.

To add a new security code:

- Add the new security code, BRETT, to the SCODE table. The SCODE ADD command allows you to add a security code to the SCODE table and instructs the CS-4000 not to update panels using this security code.

  Example: SCODE ADD %BRETTBRETT

  When a panel using the security code BRETT reports, the CS-4000 receives the report, but will not change the panel's security code.

Checking the CommLock Configuration

The CS-4000 operator can check the CS-4000's CommLock configuration with the following commands.

CSLOCK Command

The CSLOCK command displays the current security code update mode as one of the following:

- CSLOCK mode is SET.
- CSLOCK mode is REMOVE.
- CSLOCK mode is OFF.

CSLOCK SELECT Command

The CSLOCK SELECT command displays the CSLOCK select table, which is the table of accounts selected for security code updates.

CPUTYPE ON Command

The CPUTYPE ON command has been enhanced to display the CommLock method being used by a reporting panel. When a panel supporting the CommLock feature reports, the CS-4000 displays one of the following:

- CPU is using Phone-Lock.
- CPU is using CS-Lock.
- CPU is not using CommLock.

MSTAT Command

The MSTAT command has been enhanced to display the security code update mode.

STAT Command

The STAT command has been enhanced to display the security code update mode.

Expanded Output Formats

The CS-4000 software version 5.0 supports the following expanded output formats:

- Generic Format
- Ademco/CAPS Format
- ITICOMP Format
- Honeywell Format
- Radionics Format
- Suplow Format

The CHANNEL command has been modified with a new option that allows selection between the new enhanced channel output codes and output codes that are similar to those supported by CS-4000 version 4.0 software. The CHANNEL command now has the VERSION option, which can be set to V4 or V5. The default VERSION setting is V5. Table 22 summarizes the CHANNEL VERSION command.

Table 22. CHANNEL VERSION Command

Command	Parameters	Description
CHANNEL *n* VERSION *m*	*n* = 1,2, or 3 *m* either V4 or V5	V5 configures all new output report codes for the CS-4000 software version 5.0 enhancements. V4 configures output codes similar to the CS-4000 software version 4.0 output codes.

Note: The CHANNEL *n* VERSION *m* command setting determines the output codes for Generic, ITICOMP, and Suplow output formats. For this reason, the output code changes listed for these formats in the following sections are marked as either V4 or V5.

Generic Format

The Generic format output has been modified to accommodate the following:

- Modified output codes
- COMPLOG command
- Interrogator condition codes

Modified Output Codes

Table 23 shows changes to the Generic format for V4 and V5 output codes. For complete details about the Generic format, refer to Appendix A in your *CS-4000 Central Station Receiver Installation and User's Manual* (46-056).

Table 23. Generic Format Changes Supported by V4 and V5 Output Codes

CS-4000 Message	Generic Output Byte			CHANNEL VERSION
	Name	Number	Code	
Supervisory Unit *n* †	Unit ID	10	0 - 9	V4 and V5
Low Battery Unit *n* ‡			0 - 9	V4 and V5
CPU Shut Down ¥	Condition code	13	S	V4 and V5
Auto Event Dump ¥	Condition code	13	A	V4 and V5
Trouble	Condition code	13	L	V4
			J	V5
Improper Security Code ¥*f*	Condition code	13	I	V5
	No output record is sent.			V4
Alarm Buddy System *n*	Buddy number	10	1 - 4	V4 and V5
Phone Test (E31, E3x, E41, E42 commands)	Condition code	13	A	V4
			P	V5

† This message includes buddy, touchpad, and hardwire unit supervisory reports.

‡ This message is for touchpad low battery reports.

¥ This message is new with version 5.0 software. Refer to "Reporting from the Commander 2000" for more information on these messages.

f The zone byte is set to zero, no zone information is reported to the CS-4000.

Table 24 shows additional changes to the Generic Format for V4 and V5 output codes.

Table 24. Generic Format Changes Supported by V4 and V5 Output Codes

CS-4000 Report Record		Generic Output Byte			CHANNEL VERSION
Information	Range	Use	Number	Code	
User ID	0 - 9	User ID for openings and closings	10	0 - 9	V4 and V5
	10 - 35			A - Z	V4 and V5
	36 - 61			a - z	V4 and V5
	62 and greater			?	V4 and V5
Group number	0 - 9	Group number	9	0 - 9	V4 and V5
	10 - 35			A - Z	V4 and V5
	36 - 61			a - z	V4 and V5

COMPLOG command

The COMPLOG command enables the CS-4000 to include a phone log record at the beginning and end of each call. With COMPLOG ON, a string of reports generated by a call is encapsulated within two phone log records, one at the beginning and one at the end of the group of reports. The following table summarizes the COMPLOG command.

Command	Parameters	Description	Default
COMPLOG *nnn*	ON or OFF	Turns ON or OFF phone log records at beginning and end of reports.	ON

Table 25 shows the byte arrangement of the phone log record.

Table 25. Phone Log Record Format

Byte	Parameters	Description
0	LF	ASCII line feed
1	0 - 9	Receiver ID (RID command)
2	1 - 4	Phone line number
3	0 - 9	Report event sequence (1 of 4)
4	0 - 9	Report event sequence (2 of 4)
5	0 - 9	Report event sequence (3 of 4)
6	0 - 9	Report event sequence (4 of 4)
7	0	Constant
8	0	Constant
9	0	Constant
10	0	Constant
11	0	Constant
12	0	Constant
13	F, N	Condition code
14	CR	ASCII carriage return

Table 26 provides an example of a report record encapsulated within two phone log records.

Table 26. Generic Format Report Record Encapsulated within Phone Log Records

	Record Byte Numbers														
Record	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Phone Log	LF	1	1	2	3	4	5	0	0	0	0	0	0	N †	CR
Report	LF	1	1	A	X	B	C	D	E	5	0	1	1	A	CR
Phone Log	LF	1	1	2	3	4	5	0	0	0	0	0	0	F †	CR

LF: line feed
CR: carriage return

† Byte 13 of the phone log record marks the start and end of reporting with N and F respectively.

Interrogator Condition Codes

The Generic format uses three new condition codes to indicate the alarm verification mode used for Interrogator support. Byte 13, condition code, normally contains an A for alarm reports.

Notes: a. The three new codes only substitute for an A code.

b. The three new codes are not used if AUDIO is set to OFF.

c. The three new codes are not used if the CHANNEL *n* VERSION V4 command is set.

Table 27 shows the four possible condition codes that report the alarm verification mode.

Table 27. Generic Format Interrogator Condition Code Output

Condition Code	Verification Mode	Example Output Record
A	none	02CpTPL20001**A**
V	Instant	02CpTPL20001**V**
D	Dialout	02CpTPL20001**D**
G	One-ring	02CpTPL20001**G**

Ademco/CAPS Format

The Ademco format has been modified for Commander 2000 pseudo zone numbering and reports.

Changes to Commander 2000 Pseudo Zone Numbering

The three-digit pseudo zones that report under special conditions have been changed to accommodate the zone numbers now available with the Commander 2000. The zone number changes are the same as those previously made for the CareTaker *Plus*. Table 28 summarizes the pseudo zone number changes.

Table 28. Commander 2000 Pseudo Zone Number Changes

Pseudo Zones †	Commander 2000 Pseudo Zones
018 exit fault	218 exit fault
028 supervisory	228 supervisory
038 low battery	238 low battery

† The original pseudo zone numbers are still used for other panel types.

New Commander 2000 Reports

Table 29 summarizes the output characters generated by the new Commander 2000 reports.

Table 29. Ademco Output for New Commander 2000 Reports

CS-4000 Message	Ademco Output
CPU Shut Down	A
Auto Event Dump	A

ITICOMP Format

The ITICOMP format output has been changed to accommodate the following enhancements:

- Modified output codes
- CommLock support
- Interrogator support

Modified Output Codes

Table 30 summarizes the changes that have been made to the ITICOMP output format for V4 and V5 output codes.

Table 30. ITICOMP Format Changes Supported by V4 And V5

CS-4000 Message	ITICOMP Output			CHANNEL VERSION
	Name	Field	Code	
Supervisory Unit *x* †	Subunit ID	|S	0 - 9	V4 and V5
Low Battery Unit *x* ‡				
CPU Shut Down ¥	Condition Code	|C	S	V4 and V5
Auto Event Dump ¥	Condition Code	|C	A	V4 and V5
Trouble	Condition Code	|C	L	V4
		|C	J	V5
Phone Test (E31, E3x, E41, E42 commands)	Condition Code	|C	Z	V4 and V5
Improper Security Code ¥ƒ	Condition Code	|C	I	V5
	No output record is generated.			V4
Alarm Buddy System *n*	Buddy Number	|S	1 - 4	V4 and V5

† This message includes buddy, touchpad, and hardwire unit supervisory reports.

‡ This message is for touchpad low battery reports.

¥ This message is new with version 5.0 software. Refer to "Reporting from the Commander 2000" for more information on these messages.

ƒ The zone field is not included in the output record, no zone information is reported to the CS-4000.

CommLock Support

The following changes have been made to the ITICOMP output format for V5 output codes.

- The new Phone Lock report, "Improper Security Code," uses condition code I.

Note: The zone field |Z is not included in the output record because no zone information is reported to the CS-4000.

- The [R record type includes the new |O field. This field contains a single digit corresponding to the CommLock method used for reporting panels. Table 31 shows the possible field values, their descriptions, and examples.

Table 31. ITICOMP Format CommLock Method Output

O Field	Locking Method	Example
1	Phone Lock Method	|[R|IA0|**O1**|L2|AC2000|P11|VT6000|G00|D0317|T1539|N3|Z1|CA|]
2	CS Lock Method	|[R|IA0|**O2**|L2|AC2000|P11|VT6000|G00|D0317|T1542|N4|Z1|CA|]
3	No Method in use	|[R|IA0|**O3**|L2|AC2000|P11|VT6000|G00|D0317|T1545|N5|Z1|CA|]

Interrogator Support

The following change has been made to the ITICOMP output format when CHANNEL *n* VERSION V5 is set.

The [R record type includes the new |M field. This field contains a single digit representing the alarm verification mode being used for the report. Table 32 shows the possible field values, their descriptions, and examples.

Table 32. ITICOMP Format Verification Mode Output

M Field †	Verification Mode	Example
0	none	|[R|IA0|**M0**|L2|ACTPL2|P11|VT4200|G00|D0317|T1539|N3|Z1|CA|]
1	Instant Mode	|[R|IA0|**M1**|L2|ACTPL2|P11|VT4200|G00|D0317|T1539|N3|Z1|CA|]
2	Dialout Mode	|[R|IA0|**M2**|L2|ACTPL2|P11|VT4200|G00|D0317|T1542|N3|Z1|CA|]
3	One-Ring Mode	|[R|IA0|**M3**|L2|ACTPL2|P11|VT4200|G00|D0317|T1545|N3|Z1|CA|]

† No |M field is included if the AUDIO OFF command is set.

Honeywell Format

The Honeywell format has been changed to accommodate modified output codes.

Modified Output Codes

Table 33 summarizes the changes that have been made to the Honeywell output format for CS-4000 reports.

Table 33. Honeywell Output Format Changes for New CS-4000 Reports

CS-4000 Report	Honeywell Code	
	Previous	Current
Low MCU Battery	n/a	T9
CPU Low Battery Restoral	T9	R9
Auto Event Dump †	n/a	R9
Improper Security Code! †	n/a	T9
non-ITI phone test (e31, e3x, e41, e42 commands)	n/a	R9

† Commander 2000 reports.

Table 34 summarizes the changes that have been made to the Honeywell output format for CS-4000 sensor groups.

Table 34. Honeywell Output Format Changes for CS-4000 Sensor Groups

CS-4000		Panel	Honeywell Code	
Group	Type		Previous	Current
29	AUXILIARY	CareTaker *Plus*	n/a	A8
		Commander 2000	n/a	A8
43	Environmental	CareTaker *Plus*	n/a	T9
		Commander 2000	n/a	T9
44	FIRE	CareTaker Plus	A	A1
		Commander 2000	n/a	A1

Radionics Format

The Radionics Format has been changed to accommodate modified output codes.

Modified Output Codes

Table 35 summarizes the changes that have been made to the Radionics output format for specific CS-4000 reports.

Table 35. Radionics Output Format Changes for CS-4000 Reports

CS-4000 Report	Radionics Code	
	Previous	Current
Low MCU Battery	n/a	T9
CPU Low Battery Restoral	T9	R9
Auto Event Dump †	n/a	R9
Improper Security Code! †	n/a	T9
non-ITI phone test (e31, e3x, e41, e42 commands)	n/a	R9

† Commander 2000 reports.

Table 36 summarizes the changes that have been made to the Radionics output format for specific group numbers assigned to sensors.

Table 36. Radionics Output Format Changes for CS-4000 Sensor Groups

CS-4000		Panel	Radionics Code	
Group	Type		Previous	Current
44	FIRE	CareTaker *Plus*	A	A1
		Commander 2000	n/a	A1
43	Environmental	CareTaker *Plus*	n/a	T9
		Commander 2000	n/a	T9
29	AUXILIARY	CareTaker *Plus*	n/a	A8
		Commander 2000	n/a	A8

Suplow Format

The Suplow Format has been changed to accommodate modified output codes.

Modified Output Codes

Table 37 summarizes the changes that have been made to the Suplow output for CHANNEL *n* VERSION V4 and V5.

Table 37. Suplow Format Changes

CS-4000 Message	Suplow Output Code	CHANNEL VERSION
Trouble message	LB	V4
	TR	V5
Supervisory Unit	SP	V4 and V5
Low Battery Unit	LB	V4 and V5
Low MCU Battery	LB	V4 and V5

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Appendix O: CS-4000 Software Release 5.3

About This Document

This document describes CS-4000 enhancements made in the CS-4000 Extended Memory Module software version 5.3 (80-141). This version provides support for the SX-V Special (60-324) and Security Pro (60-637) Control Panels. Instructions for using the new printer, the Okidata MicroLine 184, are also included. Refer to the *CS-4000 Installation and User's Manual* (46-056) and the appropriate control panel installation manuals for more details.

WARNING: Before installing this software, perform an MSTATUS command to obtain a printout of the CS-4000's current settings. If you are using the E31, E3X, E41, or E42 commands, obtain a printout of their settings also.

Note: Software version 5.3 will not work on a CS-4000 that does not have 64K of random-access memory (RAM). Make sure your CS-4000 is part number 60-197-64K before attempting to install this software. If you do not have 64K, contact ITI Order Processing at 1-800-777-4841 for an upgrade.

Overview

The CS-4000 software version 5.3 includes the following:

- New panels, SX-V Special and Security Pro 4000
- New printer, the Okidata MicroLine 184
- New reports for existing panels
- New receiver and interactive commands
- Modified receiver commands new panels

New Panels

Two new panels, the SX-V Special and the Security Pro 4000, are supported in this release.

SX-V Special

Please refer to the *SX-V Special Panel Release Notes* (46-905) for more information.

SX-V Special Commands

Commands for programming the SX-V Special are the same as those used for the SX-V. The following commands are new for the SX-V Special.

KEY Command

The KEY command sets the arm/disarm levels for the optional, two-position key-switch control. To use this command, type the following:

KEY *N X*

Replace the *N* with the arming level (0-7), and *X* with the disarm level (0-7).

Display KEY Command

To see the KEY command appear in the list of receiver commands, use the DISPLAY SXVSP ON/OFF command.

To include the KEY command in the commands list, type the following:

DISPLAY SXVSP ON

The next time you display the list of commands, it includes the KEY command.

To remove the KEY command from the command list, type the following:

DISPLAY SXVSP OFF

The next time you display the list of commands, the KEY command will not be listed.

SX-V Special Reports

Verify that your automation package correctly interprets installer defined zones 00-99 and upper sensor numbers 100-119.

Sensor Reports (sensor N: 0-99)

N Alarm!

N Canceled

N Alarm! Tamper!

N Exit Fault

N Supervisory

N Low Battery

N Bypassed

Upper Sensor Reports (sensor N: 100-119)

100 Alarm! Buddy System! *N* (*N*: 1-4)

100 Supervisory Unit *N* (*N*: 1-4)

101 Alarm! Touchpad Tamper!

102 Supervisory Unit *N* (*N*: 0-7)

103 Alarm! Manual Fire!

104 Alarm! Manual Police!

105 Alarm! Manual Medical!

106 Phone Test

107 Opening Report User *N* (*N*: 0-9, A-Z)

108 Closing Report User *N* (*N*: 0-9, A-Z)

109 Alarm! Silent DURESS!

110 Force Armed

111 A/C Power Failure

111 A/C Power Restored

112 Low CPU Battery

112 Power Supply Failure

***Upper Sensor Reports** (sensor N: 100-119)*

112 Alarm Restoral	115 Receiver Failure!
113 Alarm! Tamper Loop!	116 CPU Back in Service
113 Alarm Restoral	119 Low Battery Unit *N* (N: 0-14)
114 Automatic Phone Test	119 Program Change

Generic Output for SX-V Special Panel

The SX-V Special Panel can have up to 99 RF sensors. The upper sensor numbers range from 100 to 119. This means that an alarm for sensor number 83 could send the same code as a traditional upper sensor. For example, an SX-V phone test (zone 83) is reported as 83A (zone 83 alarm). For the SX-V Special, an 83 alarm is a sensor alarm.

The panel type can be used to identify the actual report message so that 83A is interpreted differently for SX-V and SX-V Special panels. The panel account data and/or panel ID data, provided in the RS-232 output record, can be used to determine the panel type. With GENERIC XID on, byte 4 of the output record (r) indicates the SX-V Special panel type.

(Refer to the "New Receiver Commands" section of this document for information on the GENERIC XID command.)

Examples

Table 1 lists the SX-V Special reports and Generic output records. The examples use 12345 as the reported account number.

Table 1. SX-V Special Reports and Generic Output Record

Report	Generic Output Record (XID ON) NODATA 20
99 Alarm!	041r23454 99A
99 Canceled	041r23454 99R
99 Alarm! Tamper!	041r23454 99T
99 Exit Fault	041r23454 99E
99 Supervisory	041r23454 99S
99 Low Battery	041r23454 99L
99 Bypassed	041r23453 99B
100 Alarm! Buddy System! 01	041r2345C1A0A
100 Supervisory Unit 01	041r2345C1A0S
100 Supervisory Unit 02	041r2345C2A0S
100 Supervisory Unit 03	041r2345C3A0S
100 Supervisory Unit 04	041r2345C4A0S
101 Alarm! Touchpad Tamper!	041r2345D A1A
102 Supervisory Unit 00	041r2345E0A2S
102 Supervisory Unit 01	041r2345E1A2S
102 Supervisory Unit 02	041r2345E2A2S
102 Supervisory Unit 03	041r2345E3A2S
102 Supervisory Unit 04	041r2345E4A2S
102 Supervisory Unit 05	041r2345E5A2S
102 Supervisory Unit 06	041r2345E6A2S
102 Supervisory Unit 07	041r2345E7A2S
103 Alarm! Manual Fire!	041r2345A A3A
103 Canceled	041r2345A A3R
104 Alarm! Manual Police!	041r2345A A4A
104 Canceled	041r2345A A4R
105 Alarm! Manual Medical!	041r23451 A5A
105 Canceled	041r23450 A5R
106 Phone Test	041r2345D A6A
107 Opening Report User 0	041r2345D0A7A
107 Opening Report User 1	041r234511A7A
108 Closing Report User 0	041r2345D0A8A

Table 1. SX-V Special Reports and Generic Output Record

Report	Generic Output Record (XID ON) NODATA 20
108 Closing Report User F	041r2345D A8A
109 Alarm! Silent Duress!	041r2345D A9A
110 Force Armed 0	041r2345D C0A
111 A/C Power Failure	041r2345E C1A
111 A/C Power Restored	041r2345E C1S
112 Low Panel Battery	041r2345E C2A
113 Alarm! Tamper Loop!	041r23452 C3A
113 Alarm Restoral	041r23452 C3W
113 Canceled	041r23452 C3R
114 Automatic Phone Test	041r2345E C4A
115 Receiver Failure!	041r2345D C5S
116 Panel Back In Service	041r2345D C6A
119 Low Battery Unit 00	041r2345D0C9L
119 Program Change	041r2345D C9A

Security Pro 4000 Panel

A new panel, the Security Pro 4000, is a special 40-zone version of the CareTaker® *Plus* Panel (60-435). All of the panel's reports, outputs, and programming commands are similar to the CareTaker *Plus* Panel.

New Printer Okidata MicroLine 184

The Okidata MicroLine 184 printer replaces the Epson LX-810 printer, which was discontinued by the manufacturer. This printer and associated ITI surge protector have been approved for use with the CS-4000 by Underwriters Laboratory (UL). We recommend replacing the Epson printer with the Okidata printer.

Refer to these part numbers when ordering printers and surge protectors.

- Okidata MicroLine 184 (ITI part# 13-352)
- Surge protector (ITI part# 13-227)

Printer Emulation

The Okidata MicroLine 184 printer comes with either IBM emulation or STANDARD emulation. You **MUST** use the Okidata MicroLine printer 184 with STANDARD emulation. If you order the printer from ITI, you will receive a STANDARD emulation printer. If you order the printer somewhere else, order an Okidata MicroLine 184 - Okidata part# 6240-9701 to receive a STANDARD emulation printer.

To verify your printer has the correct emulation, you can run a printer self-test. To do this, hold down the line feed button and turn on the printer. The first line of the test should read: ML184 TURBO STD for STANDARD emulation.

CS-4000 Configuration

When you power up the CS-4000, channel 1 defaults to the Okidata printer format instead of Epson. If you are using another printer, you will have to type an additional command at power-up to reconfigure the channel. This is a configuration command; you only have to enter it once.

To configure the CS-4000 for the Epson LX-810, type the following:

CHANNNEL 1 FORMAT EPSON

After you purchase an Okidata printer, type the following:

CHANNEL 1 FORMAT OKIDATA

Printer Configuration

The CS-4000 Channel 1 is intended to be used with the Okidata printer. The default settings for the channel are 1200 baud, wordsize 7, parity even, stopbits 2. The following details how to configure the Okidata MicroLine 184 printer for these settings.

DIP Switch Settings

The Okidata MicroLine 184 printer has two banks of DIP switches on the serial interface board as shown in Figure 1.

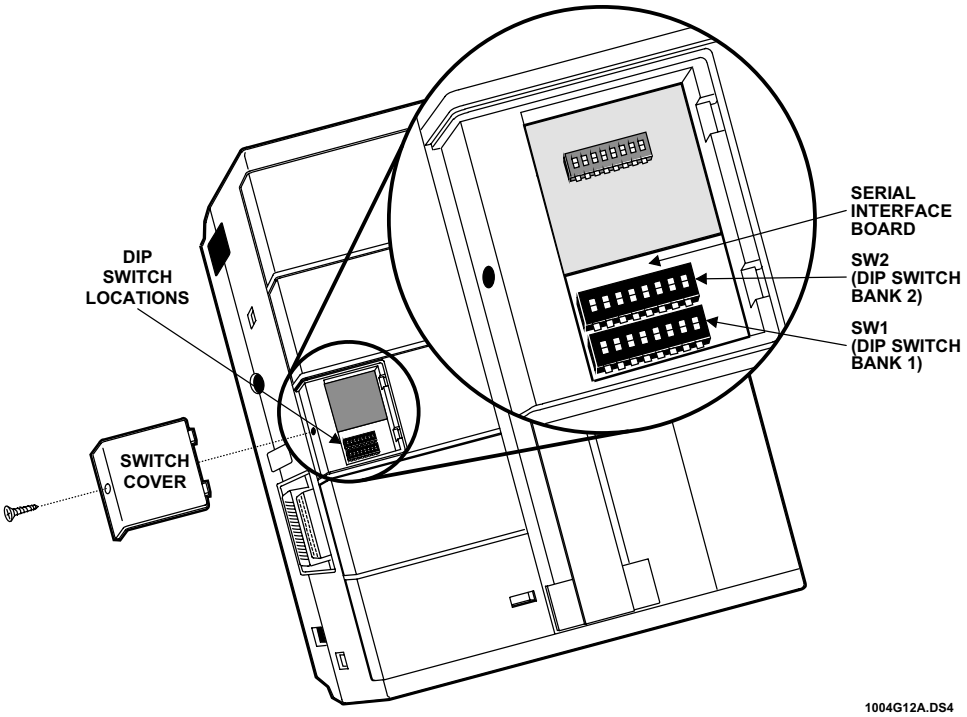

Figure 1. Okidata MicroLine 184 DIP Switch Location

To use the Okidata MicroLine 184 with the CS-4000 (the CS-4000 with default settings), you must set the printer's DIP switches from the factory default settings to the CS-4000 printer settings using the following tables.

Table 2 shows how to change the factory default settings to the CS-4000 printer settings on DIP switch bank 1.

Table 2. DIP Switch Bank 1 on the Serial Interface Board

Change DIP Switch Number:	From Factory Default Setting:	To CS-4000 Printer Setting:
1	ON	OFF
2	ON	OFF
3	ON	OFF
4	ON	OFF
5	ON	ON
6	ON	ON
7	OFF	ON
8	ON	ON

Table 3 shows how to change the factory default settings to the CS-4000 printer settings on DIP switch bank 2.

Table 3. DIP Switch Bank 2 on the Serial Interface Board

Change DIP Switch Number:	From Factory Default Setting:	To CS-4000 Printer Setting:
1	OFF	ON
2	ON	ON
3	ON	OFF
4	ON	OFF
5	ON	ON
6	ON	ON
7	ON	ON
8	(NOT USED)	(NOT USED)

UL Installations

Refer to Appendix F for details.

Keyboard: The CS-4000 keyboard is a personal computer-style keyboard. (UL requires that the Maxiswitch Inc. Part Number 2186002A, 2189001-00-411, or 2192004-xx-xxx be used.)

AC Power Connection: Connect the 115 VAC power cord to the receptacle on the back of the receiver.

New Report for Existing Panels

Panels now send keychain reports.

Keychain Touchpad

The Keychain Touchpad (60-606, 4 button; 60-607, 2 button) permits customers to arm and disarm their alarm panels with a keychain-sized device. This product can be used with CareTaker *Plus* (version 3.0), Security Pro 4000, and Commander® 2000 (version 4.0) (60-437) panels.

Each keychain can be used as either a sensor or a touchpad. If the keychain is used as a sensor, the CS-4000 receives the sensor number in the usual way. If the keychain is used as a touchpad, the panel reports a substitute or pseudo number.

The CS-4000 displays the following messages when users use the Keychain Touchpad to arm and disarm the panel:

84 Opening KeyChain TP *N*

85 Closing KeyChain TP *N*

N is the keychain sensor number reported by the panel. When the keychain is used as a touchpad, CareTaker *Plus* reports sensor 41, Security Pro 4000 reports sensor 41, and Commander 2000 reports sensor 20.

Modified Reports

There are three modified reports: Revision Level, Low Battery, and Supervisory.

Revision Level Report

The REVLEVEL ON command displays Panel ID and revision information. Panel ID indicates the reporting panel type, panel revision indicates the Panel software revision. The CS-4000 message appears as follows:

Panel ID *N* Revision *N*

The new message replaces the more confusing *NN* used in previous versions of the software. Each panel has its own ID number. Use this list to identify them.

Panel ID	**Number**
RF Commander	2
CareTaker *Plus*	4
Security Pro 4000	4
SX-V	5
Commander 2000	6
Hardwire Commander	a
SX-V Special	b
SX-III/SX-IV	f

Low Battery and Supervisory Reports

Touchpad low-battery and supervisory reports for the CareTaker *Plus* (zone 89) now generate separate messages for each touchpad reporting a problem. In both examples, *N* represents the touchpad number reported by the panel.

RF touchpads are battery-operated. When the battery is low, the touchpad sends a low-battery message to the panel, which sends the message on to the CS-4000. The low-battery report appears on the screen as follows:

89 Low Battery Unit *N*

Each supervised touchpad sends the Panel a supervisory test signal to verify that the touchpad is present and working. If the panel hasn't heard from a touchpad for the time set by the SUPSYNC command, it calls in a supervisory report to the CS-4000. The supervisory report appears as follows:

89 Supervisory Unit *N*

Commands

This section describes new receiver commands, new interactive panel commands, modified receiver commands, and modified interactive commands.

New Receiver Commands

The following receiver commands have been added to version 5.3.

FLASH Command (default: OFF)

The FLASH command places a line on hold so an operator can pick it up. This command is used with instant alarm verification and affects customers who have an Interrogator Module. When an operator picks up the line, he or she can speak or listen to the customer. This command allows the receiver to place the telephone line with active alarm verification module on hold. It may not be compatible with all central station phone systems.

This receiver configuration command enables or disables a *flash hook* when releasing an alarm verification call using the *instant* mode. (Instant mode is an alarm verification on the same call.) When set to *on*, the CS-4000 terminates all *instant* audio listen-in calls by placing the line on-hook for 1/2 second, off-hook for 2 seconds, then permanently placing the line on-hook. If your phone system and the FLASH command are incompatible, you can use the ATIME command. ATIME is explained in the "Modified Receiver Commands" section.

To enable flash mode, type the following:

FLASH ON

Note: The FLASH ON command overrides all other control methods for releasing a telephone line that uses instant alarm verification mode.

To disable flash mode, type the following:

FLASH OFF

CSFORMAT Command (default: ALL for each phone line)

The CSFORMAT (central station) receiver configuration command selects which communication formats to expect on a CS-4000 phone line. Use the command to eliminate the time the CS-4000 uses to detect a calling Panel's reporting method.

Each Panel uses a different communication format. The CS-4000 recognizes ITI format separately from other format types. To recognize a format, the receiver listens to panel signals. Several seconds elapse between the time a panel calls and when the CS-4000 recognizes the signal. The CS-4000 checks for ITI format first. If you have non-ITI formats, you can save the wasted seconds with the CSFORMAT command. For example, if you know that all panels on phone line 2 use non-ITI format, you can exclude ITI detection and save several seconds on calls to line 2.

To accept formats on line 1 in the ITI format only, type the following:

CSFORMAT 1 ITI

To accept formats on line 1 in the non-ITI format only, type the following:

CSFORMAT 1 OTHER

To accept all supported formats on line 1, type the following:

CSFORMAT 1 ALL

WARNING: If panels calling a particular phone line use ITI and non-ITI reporting formats, leave the CSFORMAT setting to ALL. You will lose panel reports if you change the setting.

GENERIC Commands

These commands specify the configuration options for RS-232 channels using the Generic output format. Version 5.3 contains two Generic configuration commands: GENERIC NODATA and GENERIC XID. The GENERIC NODATA command inserts an ASCII character in output record fields that contain no data. The GENERIC XID command identifies panels by type.

GENERIC NODATA Command (default: 30)

Many panel reports use the number zero in two ways—as a user number or filling a record field that contains no data.

For example, in a situation where several users can arm or disarm a panel, the report may send specific user numbers to distinguish which user armed or disarmed the panel, or it could use a *zero* for the user number. The same panel report could also use a zero to fill fields that contain no data. For example, the CS-4000 Generic format includes data for a group number. If the reporting panel doesn't use group numbers, it won't have data for the fields and it sends a zero. Some panels have a group zero. Using this command allows you to distinguish between group zero and no data zero.

The ambiguous use of the number zero can create a confusing report. You can use the GENERIC NODATA command to make the reporting panel send a symbol other than zero for fields with no data.

The following are examples of fields that contain no data:

- User/unit number for reports that do not contain a user or unit number
- Group byte for panels reporting in non-ITI format (no group number is reported)
- Zone number for the special Commander 2000 Improper Security Code report (no zone number is reported)

To insert the space character in no data fields, type the following:

GENERIC NODATA 20

The CS-4000 uses the space character ( ) to fill fields that contain no data.

Note: You must enter the hexadecimal equivalent of an ASCII character. Your printer manual includes a list of ASCII and hexadecimal characters.

GENERIC XID Command (default: ON)

GENERIC XID stands for extended IDs. This command identifies panels by type. Use this command to enable or disable extended panel ID code reports in the Generic output record. The "Output Formats" section lists panel ID codes.

To turn on extended IDs, type the following:

GENERIC XID ON

To turn extended IDs off, type the following:

GENERIC XID OFF

New Interactive Panel Commands

The following interactive commands are new.

XTENDELAY Command

The XTENDELAY (X10 delay) command affects the operation of X-10 Lamp Modules used with the CareTaker *Plus* (version 3.0) and Security Pro 4000 panels. It instructs the panel to turn X-10 Modules on or off during exit and entry delay times.

To turn an X-10 Module on, type the following:

XTENDELAY *N* ON

To turn an X-10 Module off, type the following:

XTENDELAY *N* OFF

N is an X-10 unit number from 2 to 9 (inclusive).

Modified Receiver Commands

The commands described in this section are different from previous versions.

COMMANDS Command

The COMMANDS command allows you to display commands available to the operator by privilege level. In previous versions of the software, COMMANDS displayed all commands even if the operator was not permitted to use all of them. A particular command is now listed only if the operator has privilege to use the command. COMMANDS can also be used to display receiver configuration commands only or interactive panel commands only.

To display a list of commands for the current operator, type either of the following:

COMMAND STATUS

or

COMMAND

To display a list of interactive panel commands, type the following:

COMMAND P

To display a list of receiver configuration commands, type the following:

COMMAND R

To display a list of all commands for all operator privilege levels, type the following.

COMMAND A

ATIME Command

The ATIME (Audio Time) command allows you to set the length of time an operator has to pick up an instant mode alarm verification telephone line before the CS-4000 releases it for instant mode alarm verification. The maximum allowed hold time has been increased from 60 to 120 seconds.

To set the hold time, type the following:

ATIME *N*

N is any number from 5 to 120.

Modified Interactive Commands

OPTION Command

The OPTION command permits you to toggle panel features on or off. Not all options are available on all panels. Refer to your panel documentation for panel features.

Table 4. Option Command Features

Option	Description	ON/OFF	Panel
F25	Toggles between instant or step arming.	On: Instant arming to level 3, No delay. Off: Step arming and bypass.	CareTaker *Plus* version 3.0, Security Pro 4000, Commander 2000 version 4.0
F30	Sensor low battery report control		Commander 2000 version 4.0
F31	Enables or disables remote alarm indication beeps.	On: Beeps on. Off: Beeps off.	Commander 2000 version 4.0
F32	Configure the fourth button on the Keychain to be either No delay or Energy Saver.	On: No delay. Off: Energy Saver.	Security Pro 4000

To enable a feature, type the following:

OPTION F*xx* ON

To disable a feature, type the following:

OPTION F*xx* OFF

F*xx* represents the desired option.

GROUP Command

The GROUP command assigns a group number to a sensor. Group number and letter code assignments determine sensor behavior.

Group 32 has been added for the CareTaker *Plus* (version 3.0) and Security Pro 4000 panels.

The GROUP command no longer accepts a letter attribute parameter when used with a Learn Mode panel. Follow the instructions in the *CS-4000 Installation and User's Manual* for complete instructions on using the GROUP command.

Note: Extra parameters are still ignored for other commands.

PMODE Command

The PMODE (phone mode) command allows you to set secondary phone number status. PMODE 1 causes the panel to call a second phone number if it fails to get through to the first number. PMODE 1 is now available for the CareTaker *Plus* (version 3.0) and Security Pro 4000 panels.

To enable PMODE 1, type the following:

PMODE 1

The *CS-4000 Installation and User's Manual* gives complete instructions on how to enter primary and secondary phone numbers.

HELP Command

Help screens are now available for the CS-4000 Communication Lock and audio listen-in features.

To see the Communication Lock help screen, type the following:

HELP COMMLOCK

To see the audio listen-in features, type the following:

HELP LISTEN

E31, E3x, E41, and E42 Commands

The E31, E3x, E41, and E42 format commands convert alarm codes to words the operator can easily identify. (Section 7 "Non ITI Formats" in the *CS-4000 Installation and User's Manual* includes instructions on implementing these commands.) The following keywords have been added for use with these commands.

Keyword	**Definition**
Burg	Burglary
ACFail	Power failure
ACRestore	Power restored

Output Formats

After you install your new software, all channels change to version V5.3 default codes. If your automation system receives data from the CS-4000 and does not support the new codes, you can use the CHANNEL command to control the RS-232 output codes sent to your automation system. This command disables unwanted reports or version 5.3 information until you upgrade your automation system.

To prevent the CS-4000 from sending V5.3 report codes to your automation system, perform the following steps:

1) Decide which version of the software you want to use, version 4 or version 5.

2) Determine which CS-4000 channel number (1-3) is connected to your automation system.

3) At the ready prompt, type one of the following. (*CN* is the CS-4000 channel number.)

CHANNEL *CN* VERSION V5

CHANNEL *CN* VERSION V4

To implement version 5.3, type the following:

CHANNEL *CN* VERSION V5.3

Keychain Reports

The CS-4000 displays the following messages for Keychain Touchpad reports:

84 Opening KeyChain TP *N*

85 Closing KeyChain TP *N*

N is the Keychain sensor number reported by the panel. CareTaker *Plus* reports sensor 41, Security Pro 4000 reports sensor 41, and Commander 2000 reports sensor 20 when the keychain is used as a touchpad. The "New Panel Reports" section contains more information on reported sensor numbers.

The following paragraphs describe the output formats used with the Keychain Touchpad.

ITICOMP Format

When the CS-4000 sends data to your automation system, opening and closing keychain reports include the new condition codes, lowercase letters "o" (84, opening) and "c" (85, closing) in channel version V5.3. Older versions use uppercase letters "O"and "C" for the same information. The user field also includes the keychain (sensor) number reported by the panel.

Generic Format

When the CS-4000 sends data to your automation system, opening and closing keychain reports include the new condition code, letter "K" (84, opening and 85, closing) in channel version V5.3. Older versions use the letter "A" for the same information. The user field also includes the keychain (sensor) number reported by the panel.

Radionics/Honeywell Format

The condition code used for keychain opening is "O." The condition code used for keychain closing reports is "C."

E31, E3X, E41, E42 Controlled Reports

The following paragraphs describe keyword condition codes. These codes are used with channel version V5.3 only.

ITICOMP Format

The condition code included for the reports generated by the new keywords for the E31, E3x, E41, and E42 commands:

Keyword	Condition Code
Burg	G
ACFail	P
ACRestore	H

Generic Format

The condition code used for reports generated by the new keywords for the E31, E3x, E41, and E42 commands:

Keyword	Condition Code
Burg	U
ACFail	Q
ACRestore	H

Other Reports and Formats

The following describes modified condition codes for various formats.

ITICOMP Format

Bad Sensor Report

The condition code *A* is now used for *Bad Sensor Number* reports.

Generic Format

AC Power Restored Report

The code for the AC power restored report has been changed from *A* to *S*.

Power Supply Failure Report

The code for the CPU shut down/power supply failure report has been changed from *A* to *S*.

Generic XID Panel ID Codes

The new GENERIC XID ON command can be used to enable or disable extended panel ID codes in the Generic output record. The panel ID codes included in the Generic output records are as follows:

Note: The report sends ASCII codes.

Table 5. Generic Output Records (ITI Communication Format)

ITI Reporting Format	ASCII Panel ID Codes
SX-III	@
SX-IVB	P
SX-V	‘
Other ITI	p

Table 6. Generic Output Records (Non ITI Communication Format)

Non ITI Reporting Format	ASCII Panel ID Codes
3/1 Slow	1
3/1 Fast	2
3/1 Extended Slow	3
3/1 Extended Fast	4
4/1 Slow	5
4/1 Fast	6
4/2 Slow	7
4/2 Fast	8
Radionics Hex 3/1	9
Radionics BFSK	:
All Others	0
Unknown	(space character)

With GENERIC XID ON, the following additional panel ID codes are used.

Table 7. Generic XID ON Panel Codes

Panel	ASCII Panel IDCodes
SX-V Special	r
Commander	s
RF Commander	t
CareTaker *Plus*	u
Commander 2000	w
Security Pro 4000	x

Ademco Format Report

The following describes the new condition codes used for a channel assigned the Ademco format.

The Security Pro 4000 and SX-V Special Panels use the same pseudo zones as the CareTaker *Plus* for special reports:

Exit Fault	218
Supervisory	228
Low Battery	238

Backup Format

The backup channel format has been changed from EPSON to PRINTER. This change ensures that the CS-4000 works with all printer types.

DSR Error Messages

The RS-232 ports on the back of the CS-4000 are used to send data to a remote device such as a printer. The cable connection is monitored when the channel DSRREQ option is used. The CS-4000 generates a message within 15 seconds of detecting a connection error. In previous versions of the CS-4000 software, the error message was displayed every 15 seconds until the connection was restored. Version 5.3 displays the same error message, but after three error indications, the time interval between messages is increased to 15 minutes. This change is intended to reduce the time an operator must attend to the CS-4000 while attempting to restore the connection.

FONSAFE

Information about FONSAFE is available in document 46-941 Rev. B.

CS-4000 Release Notes

Document Number: 46-700 Rev. H
November 1997

Appendix P: CS-4000 Software Release 6.0

Software version 6.0 (80-170) provides full support for the UltraGard™ and LifeGard® control panels. Refer to the *CS-4000 Installation and User's Manual* (46-056), the *UltraGard Reference Manual* (466-1037), and the *LifeGard Reference Manual* (46-960) for more details.

WARNING: Before installing this software, perform an MSTATUS command to obtain a printout of the CS-4000's current settings. If you are using the E31, E3X, E41, or E42 commands, obtain a printout of those settings also.

Note: Software version 6.0 works only with CS-4000 part number 60-197-64K (64K of random access memory or RAM). Check your CS-4000 for this number before installing this software. Otherwise, contact ITI Order Processing at 1-800-777-4841 for an upgrade.

UltraGard Support

This section describes the following topics of Ultragard support in software version 6.0:

- **Interactive Commands**
- **Optional Features (F00 - F42)**
- **Reporting**
- **Output Formats**
- **Interrogator 200 Audio Verification Module (AVM)**

Interactive Commands

Table 1 shows the CS-4000 interactive commands for UltraGard panel programming configuration. When using the commands, you may enter leading zeros or leave them off.

Table 1. CS-4000 Interactive Commands for UltraGard Panels

Command	Parameters	Description
ACCESS *nnnn*	Any four numbers	Assigns primary access code, *nnnn*. The following numbers are not allowed: 7777, 8888, 9999. These numbers interfere with panics.
ACCOUNT *nn-nnn*	Any five letters or numbers	Assigns an account number *nn-nnn* to the panel.
ACTIVITY *nn*	Number of hours 1–24	Sets the panel's activity timer value.
AVACCESS *nnnn*	Any four numbers	Sets AVM access code. The following numbers are not allowed: 7777, 8888, 9999. These numbers interfere with panics.

Table 1. CS-4000 Interactive Commands for UltraGard Panels (continued)

Command	Parameters	Description
AVBEEPDLY *nnn*	30–300 seconds in 2-second increments	Sets AVM beep delay, *nnn*.
AVMODE *nn*	Modes 01, 02, 03, 09, 10, 11	Sets AVM operation mode, *nn*.
AVTIMEOUT	0–300 seconds in 2-second increments	Sets AVM access time-out, *nn*.
BYPASS *n*	01–76	Bypasses sensor *n*.
DELETE *nn*	01–76	Deletes sensor *nn*.
	77–96	Turns off upper sensor *nn*.
DIALBACK *nnnn*	10–2,550 minutes in 10-minute increments	Tells the panel to call back in *nnnn* minutes.
ENERGY *ll hh*	45°–89° F	Sets the Energy Saver Module (ESM) low temperature limit (*ll*) in the panel.
	46°–90° F	Sets the ESM high temperature limit (*hh*) in the panel.
ENTRY *s e*	8–120 seconds	Rounds seconds down to a multiple of eight and assigns as the standard entry delay (*s*).
	From 1– 8	Assigns minutes for extended delay (*e*). Both entry and exit delay are affected.
ERASE		Erases new changes to the panel. Changes are not normally posted to the panel until the CS-4000 releases it. This command abandons the changes you just entered in the CS-4000. The panel is not updated.
ESOFFSET *nnn*	000–255	Calibrates the ESM to the premises temperature. The value you enter is the ESM temperature offset..
EXIT *n*	8–184 seconds	Assigns *n* seconds for exit delay, rounded to a multiple of 8.
FREEZE *nn*	42°–90°F	Sets the freeze alarm threshold temperature.
GROUP *n m*	*n* from 1–76 *m* from 00–29, 32	Assigns sensor number *n* to group *m*.
HOUSE *nnn*	001–255	Assigns house code *nnn* to the panel.
IACCESS *nnnn*	Any four numbers	Sets the installer access code. The last two digits must be different; otherwise, the duress code does not work. The following number patterns are not allowed: 7777, 8888, 9999. These numbers interfere with panics.
INITIALIZE *nn*	77–96	Turns on upper sensor *n*.

Table 1. CS-4000 Interactive Commands for UltraGard Panels (continued)

Command	Parameters	Description
MACCESS *u nnnn*	*u* is users 1–15 *nnnn* is any four numbers	Sets the panel's multiple access codes. Assigns a code *nnnn* to the user *u*. The last two digits must be different; otherwise, the duress code does not work. The following number patterns are not allowed: 7777, 8888, 9999. These numbers interfere with panics.
MDELETE *n1 n2*	Sensors (zones) 0-96	Deletes multiple zones (sensors) from the panel. The first zone to be deleted is *n1*, the last is *n2*.
MGROUP *n1 n2 gg*	Sensors 01-76 Groups 00-29, 32	Assigns multiple sensor numbers to a group. *n1* is the starting zone number, *n2* is the ending zone number, *gg* is the new group number.
MINITIALIZE *n1 n2*	77–96 zone numbers	Turns on multiple panel upper sensor zones. *n1* is the starting zone number, *n2* is the ending zone number.
OPTION F*nn on/off*	*nn* from 00–07, 11–17, 20–22, 25, 32–33, 35–37, 40–42	Turns on or off feature number *nn*. See Table 3 for feature number information.
PFORMAT *n*	*n* = 0–2 0 = ITI 1 = 4/2, 1400 Hz 2 = 4/2, 2300 Hz	Assigns phone communication format *n* for central station reporting.
PHONE *nnn-nnnn*	Up to 18 digits, including *, #, and D Off	Assigns *nnn-nnnn* to the primary phone number and inserts 1-second pauses for each D. Dashes are ignored. Removes the primary phone number.
PHONE2 *nnn-nnnn*	Up to 14 digits, including *, #, and D Off	Assigns *nnn-nnnn* to secondary phone number and inserts 1-second pauses for each D. Dashes are ignored. Removes the secondary phone number.
PHONEDL *nnn-nnnn*	Up to 14 digits, including *, #, and D Off	Sets the panel's downloader phone number *nnn-nnnn* and inserts 1-second pauses for each D. Dashes are ignored. Removes the downloader phone number.
PLEVEL *n*	1, 2, or 3	Arms the panel to level *n.*
	8 or 9	Enters the panel into test mode *n.*
PMODE *n*	0, 1, 3, 5	Enables phone mode *n*. See Table 2 for PMODE parameter descriptions.
PTFREQ *nnn mmm*	*n* from 1–255	Assigns automatic phone test frequency to once every *n* days.
	$m \leq n$	Assigns *m* as the days remaining until the next phone test.
RECALL		Instructs the panel to hangup and call back immediately.

Table 1. CS-4000 Interactive Commands for UltraGard Panels (continued)

Command	Parameters	Description
RELEASE		Releases the trapped panel and the phone line. The panel is updated.
REPEAT		Instructs the panel to repeat its alarm information immediately.
RESTORE *nn*	1–76	Restores bypassed sensor *nn*.
SIREN *nn*	1–30	Assigns *nn* minutes as the siren time-out.
STIME *hh:mm*	24-hour time, from 00:00–23:59	Assigns 24-hour time *n* for the next 24-hour supervisory. This command uses the central station's time zone.
SUPSYNC *nn*	2–24 hours	Assigns *nn* hours for supervisory check-in period.
UPDATE		Posts all changes to the panel immediately. Normally, changes are not posted until the CS-4000 releases the panel. The panel is not released when you use this command. See ERASE command.
XTENDELAY *n on/off*	Unit numbers 2-9	Sets individual X-10 modules to turn on for a 5-minute period following the initialization of entry and exit delay times.
ZONES *n1 n2*	Sensor (zone) numbers 01-96	Displays all zone information. *n1* is the starting zone number, *n2* is the ending zone number. You may omit *n2* if there is only one zone.
ZONES STATUS		Displays all zones.

Table 2. Phone Modes

PMODE *n*	Description
0	All calls report to phone 1. Phone 2 is never used.
1	All calls report to phone 1. If phone 1 fails, calls report to phone 2.
3	Alarms and cancels report to phone 1. All calls report to phone 2.
5	Alarms and cancels report to phone 1 in 4/2 format. All calls report to phone 2 in ITI format.

Optional Features

Turn the optional feature on or off using the CS-4000 interactively or in program mode.

Note: Options marked with an asterisk (*) are new in this software release

Table 3. UltraGard Feature Numbers

Feature		Condition		
No.	**Name**	**ON**	**OFF**	**Default**
F00	Remote Phone Access	Remote access allowed. Access granted after 12 rings.	Remote access not allowed. F01 and F03 do not work when F00 is off.	ON
F01	Ring/Pause/Ring Answer	The panel can be accessed by a remote phone with the ring/pause/ring method. F01 does not work if F00 is off.	Remote phone access will be granted after 12 rings. The ring/pause/ring method is not allowed.	ON
F02	Exterior Siren Delay	Exterior siren sounds 15 seconds after an alarm occurs.	Exterior siren sounds immediately after an alarm occurs.	ON
F03	Toll Saver	Access granted on eighth ring if an alarm or trouble has occurred. F03 does not work if F00 is off.	Access granted after 12 rings, regardless of panel status.	ON
F04	RF Low Battery Reports	Low battery reports once per week.	Low battery reports once per day.	ON
F05	RF Sensor Supervisory Reports	Sensor supervisory reports once per week.	Sensor supervisory reports once per day.	ON
F06	Dialer Abort	If an alarm (except duress or fire) is canceled before dialing completes, the alarm is not reported.	All alarms are reported, even if canceled.	ON
F07	Phone Access Key Type	# is the phone access key.	* is the phone access key.	OFF
F11	Interior Siren Status Sounds Disable	Hardwire interior siren makes alarm sounds. This feature affects devices wired to panel terminals 17 and 18 only.	Hardwire interior siren makes alarm and status sounds.	OFF

Table 3. UltraGard Feature Numbers (continued)

Feature		Condition		
No.	**Name**	**ON**	**OFF**	**Default**
F12	Alarm Restoral Reports	The panel sends a restoral report if the following sequence occurs: **1.** Open sensor, alarm. **2.** Sensor restored. **3.** Alarm canceled. No report is sent if the alarm is canceled before the sensor is restored.	No alarm restoral is reported.	OFF
F13	RF Low Battery Restoral Reports	The panel sends the CS-4000 RF low battery restoral reports.	The panel does not send the CS-4000 RF low battery restoral reports.	OFF
F14	Hourly Phone Test	The system checks for correct voltage on the phone line once per hour.	The hourly phone check is not done.	OFF
F15	Alarm Verification	An alarm on a sensor in group 10–20 causes local sirens. The panel reports to the CS-4000 if another sensor in group 10–20 is tripped within 4 minutes. Sensor tampers cause an immediate alarm and report depending on option F17. Option F15 overrides the two-trip behavior of group 18.	A single interior sensor trip causes an alarm according to its group characteristics.	OFF
F16	Trouble Beeps Disable	If an RF sensor has a supervisory trouble condition, the panel arms without protesting. The 10-hour trouble beep timer is not reset when the arming level changes to 2 or 3. Trouble beeps are not disabled for fire group 26 or hardwire sensors.	Trouble beeps sound when a sensor goes into supervisory or trouble fault. The panel protests if arming is attempted. The 10-hour trouble beep timer is reset when the arming level changes to 2 or 3.	OFF
F17	RF Sensor Tamper	A tamper message from an RF sensor always causes an alarm.	A tamper message from an RF sensor causes an alarm if the sensor is active in the current arming level.	OFF
F20*	Audio Verification Module (AVM)	AVM is on and active.	AVM is off, access is not possible.	OFF

Table 3. UltraGard Feature Numbers (continued)

Feature		Condition		
No.	**Name**	**ON**	**OFF**	**Default**
F21	Immediate Trouble Beeps On RF Sensor Supervisory Condition	If the panel detects an RF sensor supervisory condition, trouble beeps begin immediately and a voice message identifies the sensor (*Sensor NN trouble*).	Trouble beeps occur after 10 hours of RF sensor supervisory.	OFF
F22	DTMF Dialing	DTMF tones generated for all outgoing calls.	Pulse tones generated for all outgoing calls.	ON
F25	Keychain Touchpad Arming	The panel arms directly to level 3, no delay. If a sensor is protesting, keep pressing the arm button until the panel arms. The panel responds as if BYPASS was pressed.	Pressing the arm button arms the panel from level 1 to 2 or 2 to 3. If a sensor is protesting, the panel responds as if BYPASS was pressed.	OFF
F32	Energy Saver / No Delay This feature determines how the panel responds to the 4-Button RF Keychain star (*) button.	Pressing the button during exit delay (including extended) arms the system and places the panel into no delay mode.	Turns the ESM on or off.	OFF
F33*	Downloader Access	Enables the downloader functions. This option can also be changed in user programming.	Disables downloader functions.	ON
F35*	Phone Panics	Phone panics are functional from the on-premise phones. (Phone panics are *7777, *8888, *9999.)	Phone panics are not functional.	OFF
F36*	Phone Control	Touch tone phones on the premises control system functions.	Touch tone phones on the premises do not control system functions.	ON
F37*	Quick Arm	Quick-arm is available.	Quick-arm is not available.	ON
F40*	Smoke Verification	A hardwire sensor in the fire group (26) must remain in the alarm state for 3 seconds or be tripped twice in 5 minutes to cause an alarm.	A fire alarm occurs immediately when a hardwire fire sensor trips.	OFF

Table 3. UltraGard Feature Numbers (continued)

Feature		Condition		
No.	**Name**	**ON**	**OFF**	**Default**
F41*	Interior Siren Verification	The interior siren condition is supervised. Trouble conditions are shown on the touchpad and are spoken if there is a short or open on the internal siren circuit.	The interior siren condition is not supervised.	OFF
F42*	Source Tracking	Reports S77 and S80–87 include the touchpad source that caused the alarm. See Table 6 for source codes.	Reports are made without the source code.	ON

Reporting

Table 4 shows the possible reports from UltraGard panels.

Table 4. Sensor Reports

Sensor Report	Report Condition
nn Alarm!	Armed sensor *nn* is tripped.
nn Alarm Tamper	Cover is removed on armed sensor *nn*.
nn Canceled	Alarm from tripped sensor *nn* is canceled by a user.
nn Exit Fault	Exit door sensor *nn* is not closed at the end of the exit delay.
nn Low Battery	Sensor *nn* has a low battery.
nn Supervisory	SUPSYNC time has expired, and no transmission has been received from sensor *nn*.
nn Trouble	The EOLR on a hardwire loop is tripped.

Upper Sensor Reports

A panel sends an upper sensor report to the CS-4000 when the corresponding upper sensor number is on and the report condition is encountered. Table 5 shows the condition that must exist for upper sensor reports. Sensor numbers 77 and 80–87 may also include the source of the report (Src NN) if feature F42 (source tracking) is on. Table 6 lists the source tracking codes.

Table 5. Upper Sensor Reports

Upper Sensor Report	Default and Source Tracking		Report Condition
77 Alarm! Touchpad Tamper Src *NN*	OFF	Yes	If more than forty key presses are received without a valid code.
77 Supervisory Unit *NN*	OFF	NA	If a hardwire bus device quits reporting.
78 Freeze!	OFF	No	The following conditions report a freeze alarm: • The energy saver's temperature reading drops to a temperature below the freeze temperature. • The panel has no previous temperature to compare to the freeze temperature and the freeze temperature is greater than the current temperature reading.
78 Alarm Restoral	OFF	No	If the temperature rises 5° above the programmed freeze limit and the alarm has not been canceled.
78 Trouble	OFF	No	If temperature data is not received from the ESM.
79 Alarm! Activity Sensor!	OFF	No	If a no activity alarm is not canceled within 5 minutes.
80 Alarm! Src *NN*	ON	Yes	Pressing the FIRE emergency button.
81 Alarm! Src *NN*	ON	Yes	Pressing the POLICE emergency button.
82 Alarm! Src *NN*	ON	Yes	Pressing the AUXILIARY emergency button.
83 Phone Test Usr # Src *NN*	ON	Yes	Phone test mode.
84 Opening Report Usr # Src *NN*	OFF	Yes	User # disarms the system. Includes user numbers.
85 Closing Report Usr # Src *NN*	OFF	Yes	User # arms the system. Includes user numbers.
86 Alarm! S/D Usr # Src *NN*	ON	Yes	Entering the duress code. Includes user numbers.
87 Auto Force Armed Usr # Src *NN*	OFF	Yes	If a user attempts to arm the system with sensors open or in trouble and does not press BYPASS or 6 during arming.
87 Force Armed Usr # Src NN	OFF	Yes	If a sensor is directly or indirectly bypassed.
88 Trouble	OFF	No	The ESM does not receive a temperature.
89 Supervisory Unit *N*	OFF	No	If the wall mount RF Touchpad is not heard within SUPSYNC hours.
89 Low Battery Unit *N*	OFF	No	If the RF Touchpad reports a low battery.
90 A/C Power Failure 90 Alarm Restoral	OFF	No	If AC power has been off for 15 minutes. When the power is restored.
91 Low CPU Battery 91 Alarm Restoral	ON	No	If the panel battery becomes low. When the battery charge returns to normal.

Table 5. Upper Sensor Reports (continued)

Upper Sensor Report	Default and Source Tracking		Report Condition
92 Alarm! Tamper Loop!	ON	No	If the panel cover is removed while system is in arming level 2 or 3.
93 Automatic Phone Test	OFF	No	The panel reports the phone test every PTFREQ days at STIME if upper sensor 93 is on. If sensor 93 is off, the panel calls if there are troubles to report.
94 Receiver Failure!	ON	No	If there has been no RF reception for 2 hours.
95 CPU Back in Service	ON	No	The panel powers up after a power failure and low battery shutdown.
95 CPU Back in Service Code (1 or 2)	ON	No	Initial panel power-up (code 1) or panel reset (code 2). There is no code for a power-up after a shutdown due to power failure and low battery.

Table 6. Source Tracking Codes

Code	Description
00	Premises phone
01	Phone (during a conversation)
02	Remote phone
09	Panel armed itself (back in service)
0F	Keychain touchpad
1x	RF touchpad unit number *x*+1 (see note)
3x	Hardwire touchpad unit number *x*

Note: For RF touchpad unit numbers, add 1 to the reported number to identify the actual unit number.

Output Formats

The following describes GENERIC and ITICOMP output format changes regarding Panel ID, User Codes, and Source Tracking.

Panel ID

For the GENERIC output format, the UltraGard ID is a “y” and is sent to the computer (your automation package) in byte 4. For example: 01U**y**LGRDq183A.

For the ITICOMP output format, the UltraGard ID is an “M” and is sent to the computer (your automation package) in the **V** field. For example:
|[R|IA0|M0|L1|AULGRD|P18|V**M**3000|GB4|D0626|T1105|N9|Z83|CZ|U1|]I8192

User Codes

Upper sensor reports 83 through 87 now include user information that is displayed on the CRT, when option F42 (source tracking) is on. When F42 is off, user information is not displayed except for upper sensor reports 84 (opening) and 85 (closing), which still display user information as before.

For the GENERIC output format, user information is sent to the computer (your automation package) in byte 10. For example:

83 Phone Test Usr 1 Src 34
01UyLGRDq**1**83A

For the ITICOMP output format, user information is sent to the computer (your automation package) in the U field. For example:

83 Phone Test Usr 1 Src 34
|[R|IA0|M0|L1|AULGRD|P18|V**M**3000|GB4|D0626|T1105|N9|Z83|CZ|**U1**|]I8192

Source Tracking

The GENERIC and ITICOMP output formats include source tracking codes. When option F42 is on, source tracking information replaces the group information in the output codes for upper sensor reports 77 and 80 through 87. When option F42 is off, the group information is not replaced.

For the GENERIC output format, user information is sent to the computer (your automation package) in byte 9. For example:

83 Phone Test Usr 1 Src 34
01UyLGRD**q**183A

Source tracking information for the GENERIC output format is translated into ASCII as shown in Table 7.

Table 7. GENERIC Output Format ASCII Source Tracking Translations

GENERIC Data	Source Tracking
0 - 9	00 - 09 hex
A - Z (upper case)	0A - 23 hex
a - z (lower case)	24 - 3D hex

For the ITICOMP output format, source tracking information is sent to the computer (your automation package) in the G field (group information). For example:

83 Phone Test Usr 1 Src 34
|[R|IA0|M0|L1|AULGRD|P18|VM3000|G**B4**|D0626|T1105|N9|Z83|CZ|**U1**|]I8192

The most significant bit of the group information is set to 1 when group information is replaced with source tracking information. The lower seven bits are used for the actual source tracking information. Table 8 shows the source tracking translations for the ITICOMP output format.

Table 8.

ITICOMP Data	Source Tracking
80 - 8F	00 - 0F
90 - 9F	10 - 1F
A0 - AF	20 - 2F
B0 - BF	30 - 3F

Table 9 shows the CRT display information, GENERIC output format codes, and descriptions for upper sensor reports 77 and 80 through 87 with source tracking on.

Table 9. GENERIC Source Tracking and User Report Codes for Upper Sensors 77, 80 - 87

CRT Display	GENERIC Code	Description
77 ALARM! TP Tamper Src 10	01UyLGRD**G0**77A	Source Tracking 10 for RF Touchpad Unit 1
77 Cancelled Src 02	01UyLGRD**20**77R	Source Tracking 02 for Off-Premises Phone
80 ALARM! Src 00	01UyLGRD**00**80A	Source Tracking 00 for On-Premises Phone
80 Cancelled Src 0F	01UyLGRD**F0**80R	Source Tracking 0F for Keychain Touchpad
81 ALARM! Src 34	01UyLGRD**q0**81A	Source Tracking 34 for Hardwire Touchpad Unit 4
81 Cancelled Src 10	01UyLGRD**G0**81R	Source Tracking 10 for RF Touchpad Unit 1
82 ALARM! Src 0F	01UyLGRD**F0**82A	Source Tracking 0F for Keychain Touchpad
82 Cancelled Src 34	01UyLGRD**q0**82R	Source Tracking 34 for Hardwire Touchpad Unit 4
83 Phone Test Usr 1 Src 34	01UyLGRD**q1**83A	User 1 Source Tracking 34 for Hardwire Touchpad Unit 4
84 Opening Rpt Usr 3 Src 10	01UyLGRD**G3**84A	User 3 Source Tracking 10 for RF Touchpad Unit 1
85 Closing Rpt Usr 6 Src 34	01UyLGRD**q6**85A	User 6 Source Tracking 34 for Hardwire Touchpad Unit 4
86 ALARM! S/D Usr 8 Src 10	01UyLGRD**G8**86A	User 8 Source Tracking 10 for RF Touchpad Unit 1
87 Force Armed Usr 0 Src 02	01UyLGRD**20**87A	User 0 Source Tracking 02 for Off-Premises Phone
87 Auto Armed Usr 36 Src 0F	01UyLGRD**Fa**87S	Key Number 36 Source Tracking 0F for Keychain Touchpad

Table 10 shows the CRT display information and ITICOMP output format codes for upper sensor reports 77 and 80 through 87 with source tracking on.

Table 10. ITICOMP Source Tracking and User Report Codes for Upper Sensors 77, 80 - 87

CRT Display	ITICOMP Codes
77 ALARM! TP Tamper Src 10	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G90**|D0626|T1100|N1|Z77|CA|]A4EE
77 Cancelled Src 02	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G82**|D0626|T1101|N2|Z77|CX|]B5BF00
80 ALARM! Src 00	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G80**|D0626|T1102|N3|Z80|CA|]C3FE2
80 Cancelled Src 0F	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G8F**|D0626|T1102|N4|Z80|CX|]D6E8B
81 ALARM! Src 34	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**GB4**|D0626|T1103|N5|Z81|CA|]E539C
81 Cancelled Src 10	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G90**|D0626|T1104|N6|Z81|CX|]F60FF
82 ALARM! Src 0F	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G8F**|D0626|T1104|N7|Z82|CA|]G6190
82 Cancelled Src 34	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**GB4**|D0626|T1105|N8|Z82|CX|]H738A
83 Phone Test Usr 1 Src 34	|[R|IA0|M0|L1|AULGRD|P18|VM3000|**GB4**|D0626|T1105|N9|Z83|CZ|U1|]I8192
84 Opening Rpt Usr 3 Src 10	|[R|IA0|M0|L1|AULGRD|P31|VM3000|**G90**|D0626|T1107|N10|Z84|CO|U3|]J92CD
85 Closing Rpt Usr 6 Src 34	|[R|IA0|M0|L1|AULGRD|P13|VM3000|**GB4**|D0626|T1108|N11|Z85|CC|U6|]K9AB7
86 ALARM! S/D Usr 8 Src 10	|[R|IA0|M0|L1|AULGRD|P11|VM3000|**G90**|D0626|T1109|N12|Z86|CA|U8|]L8FC6
87 Force Armed Usr 0 Src 02	|[R|IA0|M0|L1|AULGRD|P13|VM3000|**G82**|D0626|T1111|N13|Z87|CF|U0|]M8BC6
87 Auto Armed Usr 36 Src 0F	|[R|IA0|M0|L1|AULGRD|P12|VM3000|**G8F**|D0626|T1116|N14|Z87|CF|U36|]ODF84

Interrogator 200 Audio Verification Module

UltraGard panels can be used with the Interrogator 200 Audio Verification Module (AVM) for two-way voice communication. The central station operator enters commands on a touch tone phone to communicate with an UltraGard system owner. Though the AVM and Interrogator Module are similar, many AVM commands are different. Refer to the *UltraGard Reference Manual* (466-1037) for a complete explanation of the AVM command set.

Note: The AVM functions are similar to the Interrogator Module used with other ITI security systems. The Interrogator 200 can be used only with Ultragard panels.

Verification Modes

Audio verification is accomplished through verification modes and reports. UltraGard panels are automatically trapped when an alarm occurs from sensors in groups 00–20 and group 26, if option F20 (AVM) is on and the AVM is set to instant mode.

Note: Silent panic alarms (sensors in groups 02 and 03) and duress alarms (upper sensor 86) allow only for listen-in capability. AVM speakers at the alarm site are not activated for talkback when these reports initiate an AVM audio session.

Table 11 describes the AVM verification modes supported by the CS-4000.

Table 11. AVM Verification Modes

Mode	Description	Code
One-ring	A five-minute window allows remote access alarm verification after an alarm report. This window prevents the panel from sending more reports (except fire alarms) for five minutes, so that the central station operator can get the customer on the phone. The five-minute window is cleared when the central station operator presses 99 to end the audio session, when the customer disarms the system to level 1 (OFF), or when the five-minute window time expires.	01
One-ring Silent	Same as one-ring, however, on-premise phones do not ring.	02
Instant	Allows the central station operator to immediately establish an audio session from the CS-4000 parallel phone, before the access time-out expires (see AVTIMEOUT command in Table 1). After the panel reports the alarm to the central station, the panel stays on the line for the duration of AVTIMEOUT to allow the start of an audio session (* keypress). Sirens at the customer site do not shut down for fire alarms but do shut down for police and auxiliary alarms. If an audio session is not started before the AVTIMEOUT expires, the panel releases the phone line. If a new fire alarm occurs during the AVTIMEOUT before an audio session is started, the Fire Alarm Override routine takes over (see Fire Alarm Override below).	03
One-ring Fire Siren Shutdown	Same as one-ring except fire sirens shut down at the customer site during an audio session (10 second annunciator).	09
One-ring Silent Fire Siren Shutdown	Same as one-ring silent except fire sirens shut down at the customer site during an audio session.	10
Instant Fire Siren Shutdown	Same as instant mode except fire sirens shut down at the customer site during an audio session.	11

Note: When Fire sirens shut down, there is voice annunciation every 10 seconds at the customer site.

- **Fire Alarm Override**

  If a fire alarm occurs during the instant mode access timeout or the one- ring mode five-minute callback window, *the panel reports the alarm*. After completing the report, the panel returns to its previous state prior to the alarm.

- **New Alarm Notification**

  If an alarm occurs during a two-way audio session, the two-way interval timer drops to 20 seconds, the system announces FIRE! FIRE!, INTRUSION! INTRUSION!, or HELP! HELP! over speakers at the site and the phone, and sounds a 20-second timeout warning over the phone.

After 10 seconds, the system sounds a 10-second warning over sirens at the site and the phone. After 10 more seconds, the system ends the two-way audio session and reports the alarm.

Pressing 7 anytime during the 20-second interval timer extends the audio session to 90 seconds. After the audio session is terminated, the alarm is logged into the panel event buffer and reported to the central station.

- **Customer Termination of a Two-Way Audio Session**

  Customers can end a two-way audio session at anytime by disarming the system to level 1 (OFF).

- **Access Beeps Delay**

  In order to accommodate other communication formats and avoid reporting conflicts, the AVM has a programmable delay period for the annunciation of beeps that request the audio access code or star (*) access key press.

  This delay period is programmable from 30 to 300 seconds in 2-second increments. In instant mode, the delay is in effect when the system has completed its reports and has released the phone to the AVM. In one-ring mode, the delay is in effect when the system answers the telephone after one ring. In offsite access the delay is in effect when the system answers the phone according to the current cadence.

  Use the AVBEEPDELAY command (see Table 1) to set the beep delay period.

One-Ring Mode:

Note: An AVM code must be programmed to use the one-ring mode.

1. The CS-4000 hangs up immediately after processing the alarm report.
2. The CS-4000 displays *One-ring Listen Mode! Line nn*. RS232 channels formatted to ITICOMP or GENERIC include a field indicating one-ring mode, if CHANNEL *n* VERSION V5.0 or higher is set.
3. The operator must then call back the AVM.
4. The AVM answers after one ring and the operator enters ✱ + ✱ + AVM C O D E + # to access the AVM and verify the alarm.

Note: Local phones are disabled during the 5-minute window.

Instant Mode:

1. The CS-4000 does not hang up after processing the report.
2. The CS-4000 instructs the panel to hang up and the AVM takes the line before it is released.
3. The CS-4000 displays *Instant Listen Mode! Line nn*, and *AUDIO* is shown in the CRT phone window for line *n*. RS232 channels formatted to ITICOMP or GENERIC include a field, indicating instant mode, if CHANNEL *n* VERSION V5.0 or higher is set.

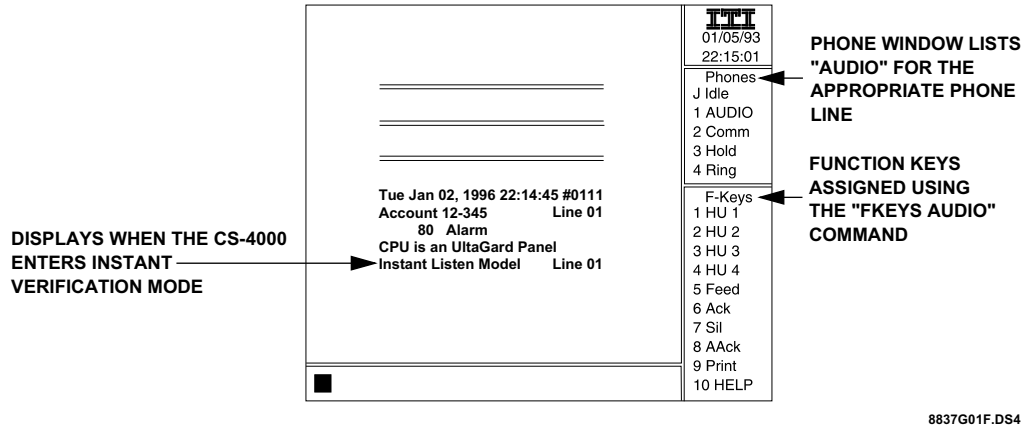

Figure 1. CS-4000 CRT Display When Using Instant Verification Mode

4. The central station operator must pick up the handset and instruct the CS-4000 to release the phone line. This releases the CS-4000 and establishes a connection between the handset and the AVM. CS-4000 phone release occurs, and "LINE *nn* RELEASED" displays when one of the following happens (see "Interactive Commands" for details on each command):
   - The FKEYS AUDIO command is set and the operator presses the keyboard function key, F1-F4, corresponding to the line being used.
   - The operator enters the HANGUP *n* command.
   - The ATIME (05-300 seconds) set by the operator expires.

   Notes: The HANGUP command does not take precedence over receiving report information. Commands are only performed after all panel reports are processed. During periods of heavy communication, it is possible for the AVM or ATIME to time out before the HANGUP command is performed, resulting in an error message.

   The operator must establish a connection with the AVM before the CS-4000 releases the phone line. If the operator fails to pick up the handset before the CS-4000 releases the phone line, the operator may not be able to verify the report.

5. The operator can now enter AVM control commands through the phone and verify the alarm.

Selecting Reports for Verification

The CS-4000 only selects panels for alarm verification if the panel's report meets certain selection criteria.

To Select UltraGard Reports:

The panel report tells the CS-4000 if the AVM is enabled and which verification mode to use.

Notes: The CS-4000 uses the verification mode specified in the panel report, not necessarily the mode set by the AUDIO command.

The CS-4000 selects the panel for listen-in, regardless of whether the panel's account number is in the ATRAP table.

LifeGard Panels

This section describes the changes in CS-4000 software version 6.0 regarding LifeGard panel ID, activity timer, and pill timer.

Panel ID

All LifeGard reports are the same as Commander 2000 panels, except for CPU Type. LifeGard panels with software versions 1.0 and earlier report as CPU Type Commander 2000. Software versions later than 1.0 report as CPU Type LifeGard.

All computer output codes are the same as Commander 2000 panels. The panel IDs for Commander 2000 and LifeGard panels are “w” (lowercase) for the GENERIC format and “S” (uppercase) for the ITICOMP format.

Activity Timer

The activity command now has two separate timeout settings. For example:

ACTIVITY dd nn
where *dd* is daytime activity timeout hour 02 - 24, and *nn* is nighttime activity timeout hour 02 - 24.

Pill Timer

The PILLTIME command allows programming of the four individual pill timers. The timers are set by specifying the hour and minute, using a 24-hour format. For example:

PILLTIME n hh:mm
where *n* is pill timer 1 - 4, *hh* is hour 00 - 23, and *mm* is minute 00 - 59.

CS-4000 Release Notes

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Appendix Q: CS-4000 Software Release 6.1.1

This document describes enhancements made in CS-4000 software version 6.1.1 (ITI part number 60-726). This version provides full support for the UltraGard™ software version 2.0 and LifeGard® version 5.1 control panels and reporting support for Simon™ control panels. Refer to the *CS-4000 Installation and User's Manual* (46-056), the *UltraGard Reference Manual* (466-1037 Revision B or later), the *LifeGard Reference Manual* (46-960), and the *Simon Installation Instructions* (466-1303) for more details.

WARNING: Before installing this software, perform an MSTATUS command to obtain a printout of the CS-4000's current settings. If you are using the E31, E3X, E41, or E42 commands, obtain a printout of those settings also.

Contact ITI Technical Service 1-800-777-2624 with questions or concerns.

Note: Software version 6.1.1 works only with CS-4000 part number 60-197-64K (64K of random access memory or RAM). Check your CS-4000 for this number before installing this software. Otherwise, contact ITI Order Processing at 1-800-777-4841 for an upgrade.

UltraGard Version 2.0 Software Support

The following describes UltraGard software version 2.0 features, programming, and reports supported by CS-4000 software version 6.1.1.

- **Feature F23 - Event Buffer Control**
  This new feature determines which events are saved to the panel event buffer (memory). With F23 on, only arming level and time changes will be saved to the event buffer. With F23 off, all events will be saved to the event buffer.

- **Feature F43 - Demo Kit Mode**
  This added feature determines if the special demo kit mode of operation is enabled. Turning F43 on enables and off disables demo kit mode.

- **Feature F44 - Constant Exterior Siren**
  New feature F44 determines if the exterior siren output modulates (normal) or is held constant when activated. Turning F44 on enables and off disables constant siren output.

- **Feature F45 - Keyswitch Arming**
  This new feature determines if keyswitch arming is enabled. Turning F45 on enables panel zone 1 as a special keyswitch arming/disarming input. Turning F45 off disables the keyswitch input use of panel hardwire zone 1 input.

- **Feature F46 - Daylight Savings Time Correction**
  This new feature determines if the automatic daylight savings time correction to the built-in real-time clock is enabled. Turning F46 on enables and off disables automatic correction.

- **Feature F47 - UL Beeps Time**

  This added feature determines when sensor group 26 (24-hour, instant, fire, rate of rise, or smoke) trouble beeps are restarted if the trouble is acknowledged, but not resolved. With F47 on, the restart time is 4 hours (required for UL-listed systems). With F47 off the restart time is 10 hours.

- **CPUTIME Interactive Command**

  This command sets or reads the panel's real-time clock. "SET" Sets the current (CS-4000) time into the panel. Panel automatically adjusts time if its time zone and/or daylight savings time is different than the CS-4000. "STATUS" Returns the panel's time setting to the CS-4000.

- **EVENT Interactive Command**

  This new command reads and/or clears the panel's event buffer. "*N*" displays the event buffer information for the previous *N* (1-32) events. "All" displays all event buffer information. "CLEAR" empties the event buffer.

- **HOM Interactive Command**

  This new command sets the optional SuperBus Hardwire Output Module (HOM) output point configuration (event trigger and response).

- **TRIPTIME Interactive Command**

  This added command sets the optional SuperBus Hardwire Output Module (HOM) momentary trip time response from 1 to 12 seconds.

- **TIMEZONE Interactive Command**

  This new command sets the panel event buffer real-time clock's international time zone from zone 0 to 23.

Receiver Commands

This section describes new or modified receiver commands.

CSTZONE Command (default: EASTERN)

In CS-4000 version 6.1.1 software, the CSTZONE command sets the receiver's time zone. For example, *CSTZONE n* where n is the receiver's time zone from 0 to 23. (Greenwich, England [0 degrees longitude - prime meridian] is zone 0 and zones increase for each 15 degrees West.)

Zones 5-8 can also be entered as EASTERN, CENTRAL, MOUNTAIN, or PACIFIC. For example, *CSTZONE PACIFIC*.

FLASH Command (default: OFF)

In CS-4000 version 6.1.1 software, the FLASH command was modified to transfer calls using pulse dialing. In addition, the FLASH command was modified so that each line can be programmed separately. Each line can be programmed to release an audio call with a flash hold, a flash with a number to dial, or to be "off." If the line is programmed to be off, the receiver will hang up the audio call after the audio time-out has expired or when a command is sent to the receiver instructing it to hang up the line.

The FLASH command syntax is as follows:

Syntax	Result
FLASH	Displays current FLASH configuration.
FLASH OFF	Turns FLASH OFF for all line numbers.
FLASH 1 OFF	Turns FLASH OFF for line number 1.
FLASH 2 ON	Turns FLASH ON for line number 2.
FLASH 3 1234	Dials 1234 after a FLASH for line number 3.

Interactive Commands

Table 1 shows new CS-4000 interactive commands used to control UltraGard software version 2.0 panels. When using the commands, you may enter leading zeros or leave them off.

Table 1. CS-4000 Interactive Commands Added for UltraGard Software Version 2.0 Panels

Command	Parameters	Description
CPUTIME	SET	Sets the current (CS-4000) time into the panel. Panel automatically adjusts time if its time zone and/or daylight savings time is different than the CS-4000.
	STATUS	Returns the panel's time setting to the CS-4000.
EVENT	1-32	Displays the event buffer information for the previous 1 through 32 events.
	ALL	Displays all event buffer information.
	CLEAR	Empties the event buffer.
HOM*	p c	Sets the HOM point *p* (1-32) to configuration *c* (trigger/response code numbers).
TRIPTIME*	1-12	Sets the HOM momentary trip time from 1 to 12 seconds.
TIMEZONE*	0-23	Sets the panel's real-time clock international time zone from zone 0 to 23.

*New interactive CS-4000 command.

Optional Features

Turn the optional feature on or off using the CS-4000 interactively or in program mode.

Table 2. New UltraGard Software Version 2.0 Feature Numbers

Feature		Condition		
No.	**Name**	**ON**	**OFF**	**Default**
F23	Event Buffer Control	With F23 on, only arming level and time changes will be saved to the panel event buffer (memory).	With F23 off, all events will be saved to the event buffer.	OFF
F43	Demo Kit Mode	Turning F43 on enables special demo kit mode of operation.	Turning F43 off disables demo kit mode.	OFF
F44	Constant Exterior Siren	Turning F44 on enables the exterior siren output to be held constant (not modulate with siren) when activated.	Turning F44 off disables constant siren output (allows the exterior siren output to modulate with the siren as usual) when activated.	OFF
F45	Keyswitch Arming	Turning F45 on enables panel hardwire zone 1 as a special keyswitch arming/ disarming input.	Turning F45 off disables the keyswitch input use of panel hardwire zone 1 input.	OFF
F46	Daylight Savings Time Correction	Turning F46 on enables automatic daylight savings time correction to panel's real-time clock.	Turning F46 off disables automatic correction.	ON
F47	UL Beeps Time	Determines when sensor group 26 (24-hour, instant, fire, rate of rise, or smoke) trouble beeps are restarted if the trouble is acknowledged, but not resolved. With F47 on, the restart time is 4 hours (required for UL-listed systems).	With F47 off the restart time is 10 hours.	ON

Reporting

The CS-4000 software has been modified to accept the following new sensor and upper sensor reports from UltraGard software version 2.0 panels.

Upper Sensor 98 (Auto Events Buffer Dump)

When upper sensor 98 (Auto Events Buffer Dump) is on, the panel reports a "98-Events" report to the central station and dumps (sends and clears) panel event buffer (memory) when 28 events are placed into the buffer. When upper sensor 98 is off, no report or events are sent to the central station, but events are still saved in the panel event buffer. The event buffer size is 32 events.

New Event Reports

The following new event messages have been added:

"04/10/97 10:00 PLV 1-3 U1 S31"

"04/10/97 10:00 10 Unbypassed"

"04/10/97 10:00 Program Chg #1"

"04/10/97 10:00 SYS Trouble #1"

"04/10/97 10:00 03 Tamper Alarm"

"04/10/97 10:00 95 Alarm Code 1"

"04/10/97 10:00 83 Alarm U1 S31"

Dirty RF Smoke Detector Report

Some new smoke sensors can report a blocked or dirty sensor. These will report as "Trouble RF Sensor."

SIMON Support

The CS-4000 has no programming support for SIMON panels. Only the CS-4000 ZONE interactive command will work with Simon panels. For SIMON panel programming, see ITI ToolBox Downloader (part number 60-675-WIN).

Use the CS-4000 CTIME receiver command to set the SIMON panel clock.

The SIMON panel has CSLOCK capabilities. For more information on the CSLOCK feature for the CS-4000, refer to Appendix N of this document.

Reporting

The CS-4000 software has been modified to accept sensor and upper sensor reports from SIMON panels. Table 3 shows the possible reports from a Simon panel.

Table 3. SIMON Sensor Reports

Sensor Report	Report Condition
nn Alarm!	Armed sensor *nn* is tripped.
nn Alarm Tamper	Cover is removed on armed sensor *nn*.
nn Canceled	Alarm from tripped sensor *nn* is canceled by a user.
nn Exit Fault	Exit door sensor *nn* is not closed at the end of the exit delay.
nn Low Battery	Sensor *nn* has a low battery.
nn Supervisory	SUPSYNC time has expired, and no transmission has been received from sensor *nn*.
nn Trouble	The EOLR on a hardwire loop is tripped.

Note: SIMON panel valid sensor numbers (*nn*) range from 1 to 17. Sensor 18 is for reporting that the emergency panic button has been pressed.

Upper Sensor Reports

The SIMON panel sends an upper sensor report to the CS-4000 when the corresponding option number is on and the report condition is encountered. New upper sensor report 99 (Latchkey) has been added for SIMON. Table 4 shows the condition that must exist for upper sensor reports.

Table 4. SIMON Upper Sensor Reports

Upper Sensor Report	Report Condition
79 Alarm! Activity Sensor!	If a no activity alarm is not canceled within 5 minutes.
83 Phone Test	Phone test mode.
84 Opening Report User #	User # disarms the system. Includes user numbers.
85 Closing Report User 6	User arms the system. (Always user "6.")
87 Force Armed	If a user attempts to arm the system with sensors open or in trouble.
90 A/C Power Failure 90 Alarm Restoral	If AC power has been off for 15 minutes. When the power is restored.
91 Low CPU Battery 91 Alarm Restoral	If the panel battery becomes low. When the battery charge returns to normal.
93 Automatic Phone Test	The panel reports the phone test every PTFREQ days at STIME if option 16 is on. If option 16 is off, the panel calls if there are troubles to report.
99 Latchkey	If the system has not been disarmed before a predetermined time.

Output Formats

The following describes GENERIC and ITICOMP output format changes regarding Panel ID.

Panel ID

For the GENERIC output format, the Simon ID is a "{" and is sent to the computer (your automation package) in byte 4. For example: 01S{IMONq183A.

For the ITICOMP output format, the SIMON ID is an "I" and is sent to the computer (your automation package) in the **V** field. For example:
|[R|IA0|M0|L1|AULGRD|P18|VI8000|GB4|D0626|T1105|N9|Z83|CZ|U1|]I8192

LifeGard Version 5.1 Support

This section describes the changes in CS-4000 software version 6.1.1 regarding LifeGard Version 5.1.

Panel ID

All LifeGard reports are the same as Commander 2000 panels, except for CPU Type. LifeGard panels with software versions 1.0 and earlier report as CPU Type Commander 2000. Software versions later than 1.0 report as CPU Type LifeGard.

All computer output codes are the same as Commander 2000 panels. The panel IDs for Commander 2000 and LifeGard panels are “w” (lowercase) for the GENERIC format and “S” (uppercase) for the ITICOMP format.

Optional Features

A new optional feature has been added for LifeGard panels. Turn the optional feature on or off using the CS-4000 interactively or in program mode.

Table 5. New LifeGard Software Version 5.1 Feature Number

Feature		Condition		
No.	**Name**	**ON**	**OFF**	**Default**
F32	Unsupervised Panic Away	With F32 on, wireless sensors assigned to fixed panic groups will not be supervised when the panel is in the Away mode. This allows users to take wireless panic buttons with them when they leave the premises.	With F32 off, sensors assigned to fixed panic groups will be supervised at all times.	OFF