
Content

Section 1 System Overview 1-1

1.1	Features	1-1
	Hardware:	1-1
	Software:	1-2
1.2	Optional Accessories	1-2
1.3	Formats Compatible with the 9500	1-3
1.4	9500 Supported SIA Digital I-III Levels	1-4
1.5	How to Use this Manual	1-5
1.6	Terminology	1-5
1.7	What's in the Box	1-6
1.8	How to Contact Silent Knight	1-6

Section 2 Agency Requirements 2-1

2.1	Telephone Requirements	2-1
2.2	FCC Warning	2-1
2.3	UL Requirements	2-2
	2.3.1 Hardware Requirements	2-2
	2.3.2 Operational Requirements	2-2
	2.3.3 Programming Requirements	2-2

Section 3 Installation 3-1

3.1	Environmental specifications	3-1
3.2	Electrical Specifications	3-1
3.3	Overview	3-2
3.4	Line Card Installation	3-4
3.5	Removing Line Cards	3-5
3.6	Telephone Line Connection	3-6
3.7	Parallel Printer Connection	3-7
	3.7.1 Printer Cable Pin-Outs	3-8
	3.7.2 Com Ports 1 & 2	3-8
	3.7.3 Remote Alert Output	3-9
3.8	AC Power Cord Connection	3-10
	3.8.1 Using Standard Power Cord	3-10
	3.8.2 Using UL Listed AC Power Connection	3-10
	3.8.3 Switching to a 230 VAC Power Supply	3-12
	3.8.4 How to Verify Earth Ground	3-13
3.9	Battery Connection	3-14
3.10	Automation Computer Connection	3-16
	3.10.1 Computer Port Baud Rate Selection	3-16

Section 4 Operation 4-1

4.1	Touchpad Function Buttons	4-1
4.2	Displays	4-3
4.2.1	LED Displays	4-3
4.2.2	LCD Status Display	4-3
4.2.2.1	Adjusting LCD Contrast	4-4
4.2.2.2	LCD Abbreviations	4-5
4.3	Initial System Power Up	4-6
4.4	Log On / Log Off	4-7
4.4.1	Installer Profile	4-7
4.4.2	Operator Profile	4-7
4.4.3	Default User Codes	4-8
4.4.4	How to log on the system.	4-8
4.4.5	How to log off the system.	4-9
4.5	Modes of Operation	4-10
4.5.1	Normal Mode	4-10
4.5.1.1	Manual Operation	4-10
	How to Manually Acknowledge Calls:	4-10
4.5.1.2	Automatic Operation	4-10
4.5.1.3	Log Only	4-10
4.5.2	Program Mode	4-10
4.6	Main Menu	4-11
4.6.1	How to display the Main Menu	4-11
4.6.2	How to Maneuver Through Main Menu	4-12
4.6.3	Call History	4-13
4.6.4	System History	4-13
4.6.5	System Info	4-14
4.6.6	Set Time & Date	4-15
4.6.7	System Restart	4-16
4.6.8	Printer Menu	4-17
4.6.8.1	Print Report	4-18
	How to Print Call History	4-18
	How to Print System History	4-19
	How to Print System Configuration	4-20
	How to Print a Test Page	4-21
4.6.8.2	Edit Event Format	4-21
4.6.8.3	Configure Printer	4-23
4.6.9	Program Menu	4-24
4.6.10	Diagnostics Menu	4-24
4.6.10.1	Phantom Menu	4-25
4.6.10.2	Message Que	4-26
4.6.10.3	Event Log	4-26
4.6.10.4	Format	4-27
4.6.10.5	LC Debug Mode	4-27
4.6.10.6	LC Statistics	4-28
4.6.10.7	Port Status	4-29
4.7	Listen-In and Hang Up	4-30
4.7.1	Extend (Common) Listen-In Operation	4-30
4.7.2	PBX Operation	4-31
4.8	Testing the System	4-31

Section 5 Programming 5-1

5.1	How to Enter Program Mode	5-1
5.1.1	Programming Fields	5-1
5.1.2	How to Maneuver Around in Program Mode	5-2
5.2	Programming Choices	5-2
5.3	General Options	5-3
5.3.1	Operation Mode	5-8
5.3.1.1	How to change the operation mode	5-9
5.3.2	Display Options	5-10
5.3.2.1	How to Change Language Display	5-11
5.3.2.2	How to Change Time Format Display	5-11
5.3.2.3	How to Change Date Format Display	5-13
5.3.2.4	How to Turn “On” or “Off” Daylight Savings.	5-13
5.3.2.5	How to Edit ITI Options	5-14
5.3.2.6	How to Edit Format Options	5-15
5.3.2.7	How to Set Hold Last Event	5-15
5.3.3	Communications	5-16
5.3.3.1	How to Set Up Port Function	5-20
5.3.3.2	How to set Com Port 1 Parameters	5-20
5.3.3.3	How to Set Com Port 2 Parameters	5-21
5.3.3.4	How to Edit Init String (Com 1, Com 2, and Parallel Port)	5-22
	To clear an init string:	5-23
5.3.3.5	How to Set Automation Communication	5-23
	How to Set the Format	5-23
	How Enable or Disable Hex Mode	5-24
	How Enable or Disable Heartbeat	5-24
	Time (Period of Heartbeat)	5-25
	Ack Time (Acknowledge Time)	5-26
	ITI Options (Only Visible if ITI Gen or ITIComp Formats are Chosen)	5-27
	Log Recs (For ITI Formats):	5-28
	XID (Extended ID for ITI Panels):	5-28
	SupCh (Supervisory Character):	5-28
	NoData (No Data Character for Log Record):	5-28
5.3.3.6	How to Configure the On-board Annunciator Outputs	5-29
5.3.3.7	How to Configure the Auxiliary Relay Outputs	5-31
5.3.4	System Options	5-32
5.3.4.1	How to Change Backup Battery Setting	5-33
	To Exit:	5-33
5.3.4.2	How to Set the Receiver ID Number	5-33
	To Exit:	5-33
5.3.4.3	How to Configure Output for Bad Data Blocks	5-34
	To Exit:	5-34
5.3.4.4	How to Set the Normal State of the Auxiliary Relay Contact	5-35
	To Exit:	5-35
5.3.5	Message Queue Options	5-35
5.3.5.1	Set the Message Queue Warning On level	5-36
	To Exit:	5-36
5.3.5.2	Set the Message Queue Warning Off Level	5-36
	To Exit:	5-36
5.3.5.3	Set the maximum Buffer Limit	5-37

	To Exit:	5-37
5.4	Line Card Menu	5-37
5.4.1	Add Line Card	5-42
5.4.2	Edit Line Card	5-42
5.4.2.1	Handshake Sequence	5-44
	To Change the Handshake Sequence Number:	5-45
	To Change the Format Group:	5-45
	To Change the Handshake Delay Time:	5-46
	To Change the Handshake Duration Time:	5-46
	To Change the Maximum Handshake Wait Time:	5-47
	To Change the Acknowledgment Tone Duration Time:	5-47
5.4.2.2	Pulse Format	5-47
	To Select Which Format a 5-digit Pulse Format will be received as:	5-47
	To Select Which Format a 6-digit Pulse Format will be received as:	5-48
	To Select the Inter-Digit:	5-48
	Set for 2300 and 1400 formats that require Acknowledges on Even Rounds:	5-48
	Set for 3/1 and 4/1 Partially Extended Formats:	5-49
5.4.2.3	Line Options	5-49
	How to Set the Line Card for a Direct Line (Dedicated Line):	5-49
	To Change the Number of Rings Follow These Steps:	5-50
	To Change the Ring On Time:	5-50
	To Change the Ring Off Time:	5-51
	To Select the dB Level:	5-51
	To Change the Ring Threshold Voltage:	5-51
	To Change the Phone Line Sample Rate:	5-52
5.4.2.4	Listen-In	5-53
	To Change the Listen Mode:	5-53
	To Change the PBX String:	5-54
	To Change the Listen-In Timeout:	5-55
	To Edit the Listen-In accounts Lists:	5-55
	To Add a Listen In Account	5-56
	To Edit a Listen In Account	5-56
	To Clear a Listen In Account	5-56
5.4.2.5	Trap List	5-57
	To Add a Trap Account	5-57
	To Edit a Trap Account	5-57
	To Clear a Trap Account	5-58
5.4.2.6	Misc. Line Opt.	5-59
	To Change the Echo Suppress Setting:	5-59
	How to Set Caller ID	5-60
	To Change the Billing Delay Setting:	5-60
	To Change the Hunt Group:	5-61
	To Change the Line Card ID:	5-61
5.4.2.7	ITI Options Menu	5-62
	ITI SCode Menu:	5-63
	To Set Date/Time Flag:	5-65
	To Enable or Disable ITI 300 Baud Negotiation:	5-65
	Set the Type of Listen-In Used for ITI Controls:	5-65
5.4.3	Copy Line Cards	5-66
5.4.3.1	To Program the Default Settings Into a Line Card	5-66
5.4.3.2	Copy the Programming of an Existing Line Card to Another	5-66
5.4.4	Clear Line Card	5-67
	To Clear or Delete a Line Card Form the Receiver Follow These Steps:	5-68
5.4.5	View Line Cards	5-68

5.4.6	Rollins	5-68
5.5	User List	5-70
5.5.1	Adding a User	5-71
5.5.2	Editing a User	5-72
5.5.3	Clearing a User Out of the Receiver	5-74

Section 6

Compatible Reporting Formats 6-1

6.1	Formats By Communication Group.	6-1
6.2	Format Numbers Used In Printer Output	6-3

Section 7

Troubleshooting 7-1

7.1	Error Messages	7-1
7.2	Troubleshooting Process	7-5
7.3	Safe Mode	7-5
7.4	Updating the Receiver Software	7-6

Section 8

Automation Communication Formats 8-1

8.1	Introduction	8-1
8.1.1	Conventions Observed In This Section	8-1
8.2	Silent Knight 9000 Protocol	8-2
8.2.1	Data String Description And Special Characters	8-2
8.2.2	Calls From Panels	8-4
8.2.3	Long Calls	8-5
8.2.4	Bad Data	8-5
8.2.5	Good Data with Bad Data	8-5
8.2.6	Validation Byte (V-Byte)	8-6
8.2.7	System Messages	8-6
8.2.8	Communication from a Computer to the 9500	8-7
8.2.8.1	ACKing And NACKing Data	8-7
8.2.8.2	Link Test	8-8
8.3	SIA CIS (Computer Interface Standard)	8-9
8.3.1	Data String Description And Special Characters	8-9
8.3.2	Basic Message Format	8-11
8.3.3	Modifier Codes	8-12
8.3.4	Long Calls	8-13
8.3.5	System Status Messages	8-14
8.3.6	Heart Beat	8-15
8.3.7	Communication from a Computer to the 9500	8-16
8.3.7.1	ACKing and NACKing Data	8-16
8.3.7.2	Link Test	8-17
8.4	ITI Generic Computer Format	8-18
8.4.1	Convention Used In This Section	8-18
8.4.2	Report Record	8-18
8.4.2.1	Control Panel Type and Zone Attribution Byte	8-19

8.4.2.2	Extended Panel ID Codes	8-20
8.4.2.3	Alarm Codes	8-21
8.4.3	Log Record	8-22
8.4.4	Test Record	8-22
8.4.5	OKAY Record	8-23
8.4.6	ACKing and NACKing Data	8-23
8.5	ITI Computer Interface Format	8-24
8.5.1	Convention Used In This Section	8-24
8.5.2	General Record Structure	8-24
8.5.3	Report Record	8-25
8.5.3.1	Information Field Identifiers	8-27
8.5.3.2	Panel Type Characters	8-28
8.5.3.3	Condition Codes	8-29
8.5.4	Test Record	8-29
8.5.5	Supervisory Record	8-30
8.5.6	Log Records	8-30
8.5.7	Checksum/Control Field	8-31
8.6	SIA 2000	8-31
8.7	SK EXP (Silent Knight Expanded)	8-32
8.7.1	SKE Header Block	8-32
Example:	.....	8-32
8.7.2	Call Message Block	8-33
Example:	.....	8-33
8.7.2.1	Dialer Format	8-34
8.7.2.2	Panel Data	8-35
Example:	.....	8-36
8.7.2.3	Listen-in Indicator	8-37
Example:	.....	8-37
8.7.2.4	Trap Account Indicator	8-38
Example:	.....	8-38
8.7.2.5	Long Call Indicator	8-38
8.7.2.6	Bad Data Field Indicator	8-39
Example:	.....	8-39
8.7.3	System Message Block	8-39
Example:	.....	8-39
8.7.3.1	System Messages	8-41
8.7.4	Heart Beat Message Block	8-42
Example:	.....	8-42
8.7.5	Validation Byte (V-Byte)	8-42
8.7.6	ACKing and NACKing Data	8-43
8.7.7	Commands Initiated by the Automation Computer	8-44
8.7.7.1	Remote Log-on/Log-off	8-45
To Log-in:	.....	8-45
To Log-off:	.....	8-46
8.7.7.2	Force Hang-up Request	8-46
To Force Hang-up:	.....	8-46
8.7.7.3	Add or Delete a Listen-in Account	8-47
To Add a Listen-in Account:	.....	8-47
To Delete a Listen-in Account:	.....	8-47
8.7.7.4	Common Listen-in Extend/End Request	8-48
To Extend Listen-in:	.....	8-48
To End a Listen-in Session:	.....	8-48
8.7.7.5	PBX Listen-in String	8-49
To Create or Edit PBX String:	.....	8-49

- 8.7.7.6 Add or Delete a Trap Account 8-50
 - To Add a Trap Account: 8-50
 - To Delete a Trap Account: 8-50
- 8.7.7.7 Link Test Request 8-51
- 8.8 US ASCII Character Code 8-51

