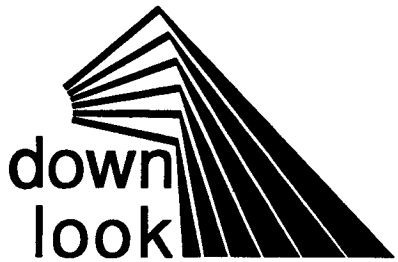
INSTALLATION MANUAL

DSC8400 DIGITAL COMMUNICATOR

with support for



Downlook Still-Frame Video Transmission Module

Digital Security Controls

DSC8400

Version 2.3L

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LIMITED WARRANTY *Inside rear cover*

FCC COMPLIANCE *Inside rear cover*

FEATURES

KEYPAD PROGRAMMABLE
The DSC8400 is complete with a default program so that it is operational with a minimum amount of programming. It is completely programmable from a PC2550 remote keypad.

EEPROM MEMORY
The DSC8400 uses EEPROM memory which will retain all program information even if the battery power is removed from the digital communicator. The EEPROM memory can be reprogrammed thousands of times.

STATIC/LIGHTNING PROTECTION
The DSC8400 has been carefully designed and tested to provide reliable in-use protection against static and lightning induced transients. A special "Zap-Trac" circuit board design catches high voltage transients right at the wiring terminals and transient protection devices are placed in all critical areas to further reduce damaging voltages.

SUPERVISION
- Low supply voltage
- Telephone line monitoring (TLM)
- Unsuccessful Communication
- Loss of time on system clock
- Microprocessor "Watchdog" circuit

OPERATION
- Supports still-frame video transmission with DLM-1 Downlook Module
- Camera switching capability
- Download/upload capability
- Programmable auto downloading
- Swinger shutdown
- Programmable test transmission
- 5 programmable outputs
- Locking out of unwanted installers
- Transmission Abort feature

SPECIFICATIONS

GENERAL
- Voltage requirements: 12 to 14VDC @ 300mA
- Dimensions: 6" x 4.5" (150mm x 115mm)
- 4 programmable (PGM) outputs
- 1 programmable switched 12V output
- 8 channel inputs

CHANNEL INPUTS
- Positive voltage trigger: 4 to 14 VDC
- Negative voltage trigger: 0.0 to 0.8 VDC
- Input impedance: 10kΩ

PGM OUTPUTS
Open Collector, switched to ground:
- V max : 14 VDC
- I max: 50 mA
- Current limited: 100Ω 1 watt resistor

SWITCHED OUTPUT
- V max: 12 VDC
- I max: 100 mA
- Programmable positive switch

+H TERMINAL
Voltage output:
- Current limited: 100Ω 1 watt resistor.
- V out: 12 to 14 VDC

TELEPHONE INTERFACE
- Input impedance: 600Ω
- Output impedance: 600Ω
- Input sensitivity: -41 dBm (20mVp-p)
- Output level: -9 dBm

DLM-1 DOWNLOOK MODULE SPECIFICATIONS
- Video image resolution: 256 x 256 pixels
- Video transmitted as a 64 Grey Scale image
- Phase shift modulation: 2kHz to 2.8kHz
- Picture transfer time: 11 to 13 seconds
- Complete image is refreshed each time a new picture is sent
- Downlook protocol sent to Monitoring Station:
  - Sur-Gard 4/3 DTMF with Parity with picture transmission (DSC8400 and Sur-Gard DC1664)
  - 4/2 Radionics, with or without Parity, with picture transmission (PC3000 Software Version 7.52L)
- DSC8400 Software Version 2.3L and the Sur-Gard DC1664 Software Version 3.5 support multiple cameras with the DLM-7 Module

INSTALLATION

MOUNTING THE DIGITAL COMMUNICATOR

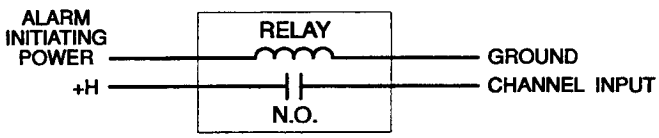
Select a dry location close to the telephone line connection. Remove the printed circuit board and the mounting hardware from the cardboard retainer inside the package. Before attaching the cabinet to the wall, press the four white nylon printed circuit board mounting studs into the cabinet from the back.

Once the cabinet is mounted to the wall, pull all the cables into the cabinet and prepare them for connection. Use a meter to test the wiring for opens, shorts, and grounds. Press the circuit board onto the mounting studs.

TERMINAL CONNECTIONS

CURRENT LIMITED VOLTAGE SUPPLY (+H)

This voltage supply denoted as +H (positive high) is used to provide a +12 volt source from the digital communicator to the channel inputs. If the trigger voltage from the triggering device is incompatible with the DSC8400 input circuit, a connection can be made through a normally open dry contact relay. See diagram below.



POWER INPUTS

Power is supplied to the unit via the RED terminal and BLACK terminal of the keypad connection.

KEYPAD WIRING

RED Positive 12 volts. A power supply is connected into this terminal to power the digital communicator. The red keypad lead is also connected here.

BLK Ground terminal. The negative of the power supply is connected to this terminal as well as the black keypad lead.

GRN The green keypad connection.

YEL The yellow keypad connection.

NOTE: The remote keypad is not intended for long-term connection; the keypad is only used for programming the system and viewing trouble conditions. A keypad with a short length of cable and alligator clips or a 4-line connector is helpful for testing and programming the DSC8400.

CHANNEL INPUTS (CHANNELS 1 TO 8)

These inputs are activated by a 12 Volt DC signal for the programmed loop response time.

PROGRAMMABLE OUTPUTS (PGM 1 TO 4)

The PGM output transistors are open collectors which switch to ground when activated. Output options are described in Programming Section [16].

When Downlook operation is enabled in Section [10], PGM 4 and Channel 8 will be dedicated to Downlook functions and may not be used for other functions. When Downlook operation is enabled, the option for PGM 4 programmed in Section [16] will be ignored. Refer to the Downlook Module Set-up section.

SW 12 V

The 12 V switched output is an open collector that switches to +12 V when activated and is current limited to 100 mA.

TELEPHONE INTERFACE

This interface consists of TIP, RING, T-1, R-1, and earth ground connections for the phone lines.

A	TIP	Incoming line from
B	RNG	telephone company
C	T-1	Outgoing line to
D	R-1	house telephone(s)
	EGND	To earth ground

Refer to the Downlook Module Set-up section for instructions on connecting the DSC8400 to the DLM-1 Downlook Module.

NOTE: For proper operation there must be no other telephone equipment connected between the DLM-1 Downlook Module and the telephone company's facilities.

TRANSMISSION ABORT FEATURE

This feature is enabled in Section [09] Light 6. To abort an unwanted transmission to the monitoring station, use a normally open switch to short the "YEL" and "GRN" keypad terminals.

If the 120-second bypass on power up function is enabled in Section [09], the channels will be bypassed for 120 seconds after each transmission abort.

If a channel is open after a transmission abort (or after the bypass period), that alarm will be transmitted to the monitoring station. All channels should be restored after a transmission abort.

NOTE: If the Transmission Abort feature (Section [09], light 6) is enabled, the keypad will beep and the LEDs will flash. Pressing the [#] key disables this feature for 30 seconds and stops the LEDs flashing for that period.

KEYPAD FUNCTIONS

The PC2550 remote keypad provides complete information and control of the DSC8400 digital communicator. The DSC8400 can be fully programmed from the keypad. Lights 1 through 8 provide alarm and status indication for the alarm circuits. The 12-digit keypad is used for programming functions with all entries made by pressing one key at a time.

TROUBLE DISPLAY

The DSC8400 continuously monitors four trouble conditions. If one of these conditions occurs, the keypad "Trouble" light will come on and the buzzer will sound two short beeps every 10 seconds. To silence the buzzer, press the [#] key. The buzzer will stop but the "Trouble" light will remain on until the trouble condition is cleared.

To view the trouble condition, press [*]. The light indicates the type of trouble.

[1] Low Voltage: If the DC supply voltage is low a "Trouble" will be displayed on the keypad. The trouble can be reported to the central station and can be programmed to turn on one of the PGM outputs in Section [16].

NOTE: The system will not power up properly with a low voltage on the power supply.

[2] Telephone Line Monitoring (TLM): A telephone line trouble is generated when the line voltage drops below 3 volts for more than the time programmed in Section [18]. It generates a keypad trouble and can be programmed to turn on one of the PGM outputs in Section [16].

[3] Failure to Communicate: If the system is unsuccessful at communicating with the monitoring station after 8 attempts to each telephone number to be dialed, a trouble is generated. If a Downlook image had been captured, it will not be transmitted and will be deleted. Refer to Section [21] to program which telephone numbers will be tried. If a later attempt at communication is successful, the trouble is cleared. The trouble is also cleared when the [#] key is pressed to exit trouble viewing mode.

[4] Loss of Time on System Clock: When the DSC8400 is powered up the internal time of day clock needs to be set if the test transmission/periodic download time is programmed. The trouble can be cleared by viewing the trouble and exiting the trouble mode, or by attempting to program the system clock. The time will be 00:00 hours (midnight) upon power up.

NOTE: If [9] is pressed while in the trouble display mode, the most recent trouble will be displayed on the keypad lights. This memory is most useful as a diagnostic tool when installing and servicing the DSC8400.

INSTALLER'S PROGRAMMING COMMAND

The DSC8400 is programmable from the keypad by using commands which are described in detail in the Programming Guide.

A default Installer's Code of [8400] is programmed into the DSC8400. Using this code, the installer can gain access to the system to enter digital communicator program information. This code can be changed by the installer in Section [14].

DOWNLOOK MODULE SET-UP

The DLM-1 Downlook Still-Frame Video Transmission Module allows video images to be captured and transmitted to provide a visual record of events during channel alarms. The Downlook module is designed to provide the benefits of a closed-circuit television system without the costs normally associated with such installations.

A **basic** Downlook Video System allowing video images to be captured, transmitted and viewed, includes the following:

On Site:

- DSC8400 Digital Communicator with version 2.3L software
- DLM-1 Downlook Module
- Black and white closed circuit video camera

Monitoring Station:

- Sur-Gard central station receiver (version 1.63L or later) with video card
- Video monitor

A **complete** Downlook Video System will allow video images to be captured, transmitted, viewed and recorded.

On Site:

- DSC8400 Digital Communicator with version 2.3L software
- DLM-1 Downlook Module
- DLM-7 Downlook Camera Selector (up to 7 video cameras may be connected)
- Black and white closed circuit video camera(s)

Monitoring Station:

- Sur-Gard central station receiver (version 1.63L or later) with video card
- Video monitor
- Video cassette recorder

Note that the Downlook system requires the DSC8400's PGM4 and Channel 8 terminals to be dedicated to Downlook operation. When Downlook operation is enabled, PGM 4 and Channel 8 may not be used for other functions.

DOWNLOOK OPERATION

The Downlook module will be activated by alarms on Channels 1 to 7 and test transmissions. When a Downlook event occurs, the Downlook module will wait for the time programmed in Section [19] to expire before capturing video images. The time in Section [19] may range from 0 to 9.9 seconds.

The number of video images to be transmitted for each channel is programmed in Section [31]; up to 8 images may be transmitted. If the DLM-7 Downlook Camera Selector is used, the image will be captured from the camera corresponding to the channel alarm. For example, Camera 1 will capture images for Channel 1, Camera 2 will capture images for Channel 2, and so on.

After the video image is captured, the DSC8400 will report the event and the number of images to be received to the monitoring station:

- The system will call the monitoring station to transmit the Account Code and the appropriate reporting codes.
- The system will then transmit the Downlook Protocol.
- The Downlook module will then transmit the video images. Each picture has a transmission time of approximately 13 seconds.
- If the system fails to communicate after 8 attempts to all telephone numbers, any Downlook images for that alarm will not be transmitted and will be deleted.

DOWNLOOK PROTOCOL

Downlook Protocol is always transmitted in a 4/3 DTMF with parity format regardless of the communication format selected in Section [15]. During a Downlook transmission, the Downlook Protocol follows normal communication and precedes the video transmission. The protocol informs the monitoring station of the type of event that occurred, which camera will transmit images, and the number of images to be transmitted.

***Transmitted data:* AAAA ICV P**

Where:

"AAAA" is the Downlook Account Code programmed in Section [32].

"I" is the Condition Code identifying the type of event. Condition Codes are programmed in Section [08].

"C" is the Channel, 1 through 7, that initiated the video transmission. For the test transmission, Channel 1 is identified.

"V" is the number of video images, less one, to be transmitted (for example, if 3 images are to be transmitted, "V" will be sent as "2"). The number of images to be transmitted, up to a maximum of 8, is programmed in Section [31].

"P" is the checksum parity.

PROGRAMMING

The following sections must be programmed to enable Downlook operation.

SECTION [08] CONDITION CODE

Program eight 2-digit hexadecimal codes, in the range of "00" to "0F", for alarms on Channels 1 through 7 and the Downlook Test Transmission. Shown below are typical condition codes; consult your monitoring station to determine what condition codes are to be programmed.

Enter	*Event*	*Enter*	*Event*
00	24-hour Test	08	Installer/User Message
01	Fire Alarm	09	Restore
02	Panic Alarm	0A	Not Used
03	Burglary Alarm	0B	Close Group
04	Closing	0C	Open Group
05	Opening	0D	Bypassing
06	Low Battery	0E	Clear Bypassing
07	Medical Emergency	0F	Auxiliary

SECTION [09] FIRST SYSTEM OPTION CODE

Turn ON Light 7 to enable the Downlook Test Transmission. Note that the normal Test Transmission must also be enabled in Section [10] by turning ON Light 5. When the Downlook Test Transmission is enabled, Channel 1 must have a camera connected and enabled.

The test transmission will be sent at the time of day and at the intervals programmed in Section [13] System Times. The Downlook Module will transmit one picture from each enabled camera during the test transmission.

SECTION [10] SECOND SYSTEM OPTION CODE

Turn ON Light 7 to enable Downlook operation. Light 7 may be turned OFF to disable the Downlook Module while still allowing the DSC8400 to perform its normal security functions.

Turn ON Light 8 to allow the Downlook Module to back-up transmissions to the Second Telephone Number in the event the system cannot communicate with the First Telephone Number. Note that the Back-up To Second Telephone Number function must be enabled in Section [09] by turning Light 2 OFF.

SECTION [15] COMMUNICATION FORMATS

Enter two digits from [0] to [F] to program the communication format for each telephone number. Both digits must be programmed event if communications will only be sent to the first telephone number.

SECTION [19] DOWNLOOK DELAY TIMER

The Downlook Module will wait for the Delay Time programmed in this section to expire before capturing and transmitting a video image. The Delay Time may be used for installations where a person has to walk some distance after activating a channel before coming into the camera's field of view.

The Downlook Delay Time is programmable in 100 millisecond (ms) increments. Program a delay time between [00] (0 seconds) and [99] (9900 ms, or 9.9 seconds). The default delay time is [10] for 1000 ms (1 second). This delay time affects all Downlook events.

SECTION [29] DOWNLOOK CAMERA MASK

Turn ON Lights 1 through 7 to enable Downlook functions for the corresponding channels; note that Light 8 is not used.

Downlook operation must be enabled in Section [10] for the Downlook Camera Mask to be operational. When using the DLM-7 Downlook Camera Selector, an alarm on a channel will activate the corresponding camera. For example, an alarm on Channel 1 will activate Camera 1, an alarm on Channel 2 will activate Camera 2, and so on.

When using the basic Downlook set-up, all Downlook events will capture images from the single camera connected directly to the DLM-1 module.

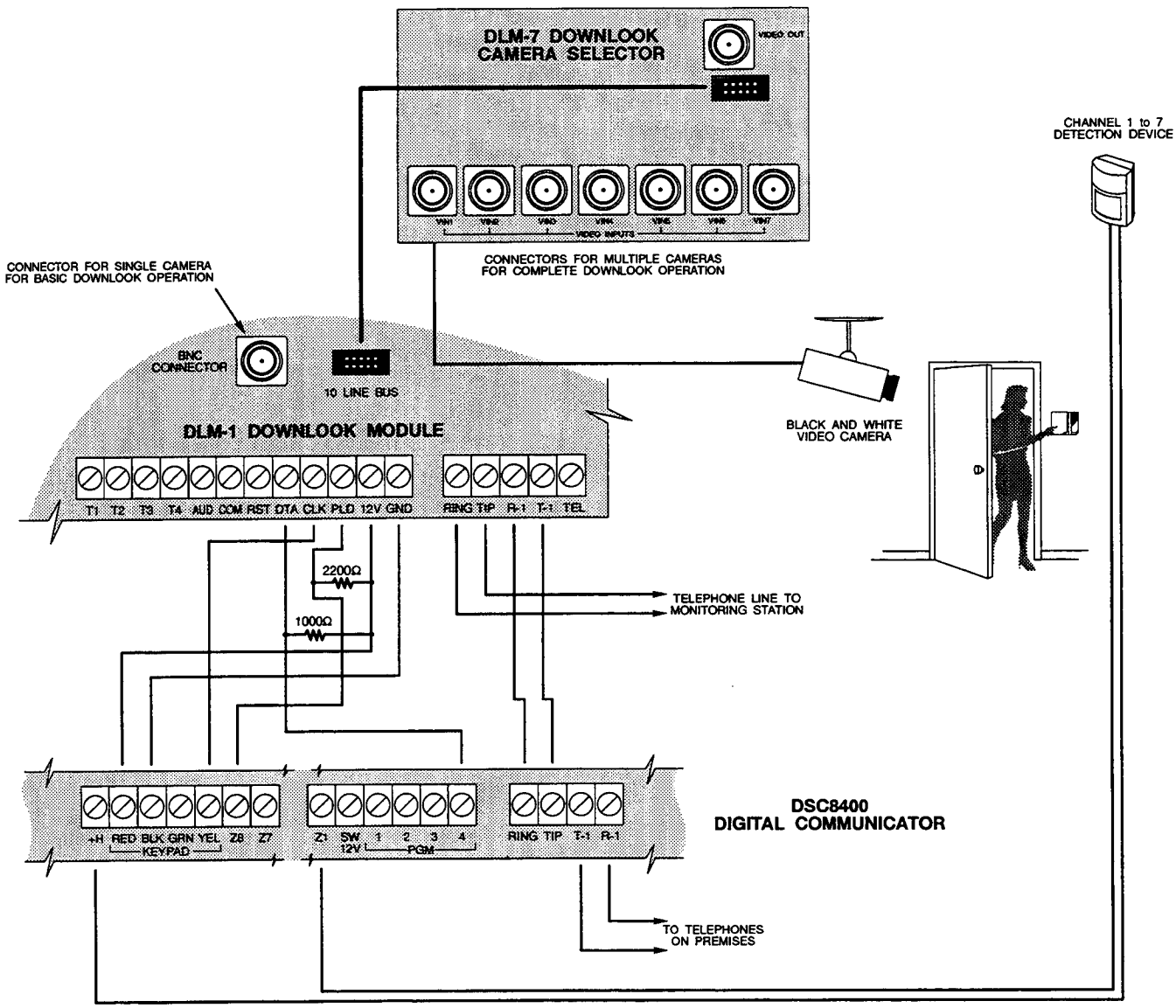
SECTION [31] NUMBER OF PICTURES PER CHANNEL

Up to 8 video images may be captured for each Downlook event. Program seven 2-digit numbers in the range of [01] to [08].

SECTION [32] DOWNLOOK ACCOUNT CODE

This 4-digit Account Code is reported whenever a Downlook transmission is made. Enter a 4-digit code using the numbers [0] to [9]; do not press [*] or [#] when entering the code.

DOWNLOOK MODULE HOOK-UP DIAGRAM



DOWNLOADING

Downloading functions may be performed with the DSC8400 using the DSC DLS-1 Downloading Software package. Refer to the DLS-1 Manual for information on using the software with the DSC8400. Several Programming Sections are related to downloading functions and must be programmed before downloading is attempted.

SECTION [10]: SECOND SYSTEM OPTION CODE

Light 1 enables and disables the Downloading Answer function. If Downloading Answer is disabled, the other Programming Sections related to downloading need not be programmed.

Light 2 enables and disables the Call Back option.

Light 3 enables and disables the Answering Machine Override (Double Call) function.

Light 4 enables and disables Periodic Downloading.

SECTION [22]: DOWNLOADING COMPUTER TELEPHONE NUMBER

If Call Back (Section [10] Light 2) or Periodic Downloading (Section [10] Light 4) are enabled, this section must be programmed with the telephone number of the downloading computer.

SECTION [23]: DOWNLOADING ACCESS CODE

A 4-digit code must be programmed in this section to allow downloading access to the DSC8400.

SECTION [24]: DIGITAL COMMUNICATOR IDENTIFICATION CODE

A 4-digit code must be programmed in this section to allow the downloading computer to identify the system. Every system should have a unique Identification Code.

SECTION [25]: NUMBER OF RINGS BEFORE ANSWER

This section determines the number of rings before the system will answer a call from the downloading computer. Enter a 2-digit number from 01 to 12.

DOWNLOADING CALL BACK

Section [10] Light 2 enables and disables the Call Back function. If disabled, the downloading computer will have immediate access to system when it calls. The disabled mode is useful when there are multiple downloading computers at different telephone numbers.

When Call Back is enabled, the downloading computer will call the system, request access, and then hang up and wait for the system to call back. After the system calls back and the downloading computer and the system verify one another as being valid, downloading operations will begin.

DOWNLOADING AND ANSWERING MACHINE OVERRIDE FUNCTION

The answering machine override function allows an answering machine to be connected to the same telephone line as the DSC8400. The override function allows the system to determine when a call is being placed to the system.

If Section [10] Light 3 is OFF, the system will operate as if there is no answering machine connected to the telephone line. The system will answer an incoming call after the programmed number of rings.

If Light 3 is OFF and an answering machine is set to answer incoming calls before the system, the system will be unable to receive calls from the downloading computer. If the system is set to answer before the answering machine, the answering machine will be unable to receive incoming messages.

To use the override feature, turn Light 3 ON. Have the downloading computer call the system and then hang up after one or two rings. If the system is called again within 1 to 249 seconds (programmed in Section [26]), the system will answer the second call on the first ring.

SECTION [26]: ANSWERING MACHINE DOUBLE CALL TIMER

This timer sets the amount of time between calls when using the answering machine override feature (see Section [10] Light 3). Valid entries are from 001 to 249 seconds, with the default being 060.

PERIODIC DOWNLOADING

The system may be programmed in Section [10] Light 4 to periodically call the downloading computer. The cycle time, in days, and the time of the call are programmed in Section [13]. The automatic call to the downloading computer can be used to update the system's programming and to upload system status information.

PROGRAMMING GUIDE

INTRODUCTION

The DSC8400 is fully keypad-programmable, and also supports downloading programming functions. The system's EEPROM memory can be reprogrammed thousands of times and will not lose program data even after total loss of power. This section of the manual describes how to program the DSC8400 using the system's keypad.

PROGRAMMING

Enter the Installer's Code; the default Installer's Code is [8400]. The Installer's Code should always be changed once programming is complete. Be sure to record the new Installer's Code for future reference! If the Installer's Code is forgotten, the system's factory programming may be restored; refer to Programming Section [30] Reset to Factory Default.

When the Installer's Code is entered, the "Armed" light will come ON and the "Memory", "Bypass", "Trouble" and "Program" lights will FLASH to indicate that the system is ready for programming. If no keys are pressed for 2 minutes, the system will return to the "Ready" mode. To re-enter the programming mode, enter the Installer's Code again.

With the "Armed" light ON, enter 2 digits for the Section to be programmed. Note that Section [00] is reserved for binary programming and is normally only entered on instruction from factory technical personnel. When the section to be programmed is entered, the "Armed" light will go OFF, the "Ready" light will come ON, and the keypad will beep 3 times. The system is now ready to accept program data.

For sections containing 2- and 3-digit numbers, Lights 1 through 4 will indicate, in binary format, the value of the first digit in the section. Refer to "Binary Data Display" for instructions on reading the binary display.

To change the first digit, enter the new digit from the keypad. To leave the first digit unchanged, enter the same number or skip the digit by pressing the [F] key. Once the first digit has been entered or skipped, Lights 1 through 4 will display the value of the second digit. When all digits in a number have been programmed, the keypad will beep twice and display the value of the first digit in the next number.

When all required data for a section is entered, the keypad will beep several times and the "Armed" light will come ON. Enter the number of the next Section to be programmed.

It is not necessary to program all 2-digit numbers in any given section. A section can be entered and programmed by going only to the digit or digits to be changed and then pressing [#] to return to the Programming Mode. For 2-digit and 3-digit numbers, all digits must be programmed before pressing the [#] key. Only the data entered before pressing the [#] key will be changed in the system's memory.

REVIEWING PROGRAMMED DATA

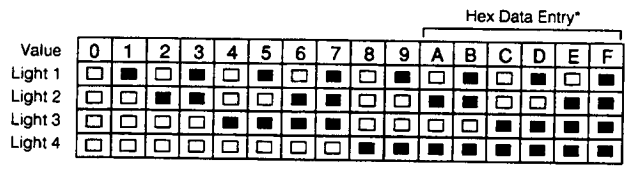
- Enter the section to be programmed by entering the 2-digit section number.
- Lights 1 through 4 will represent the value, in binary format, of the first digit in the section.
- Press the [F] key to advance the display to the next digit.
- At the end of the section, the keypad will beep several times and then return to the Program Mode so that another section can be selected for review or programming.

NOTE: When viewing the telephone number with the [F] key, the number must be completely viewed before pressing [#].

Only Sections [01] through [08], [12] through [27], [31] and [32] can be reviewed using the method described above. Note that Sections [30], [90], [91] and [99] cannot be reviewed.

BINARY DATA DISPLAY

Lights 1 through 4 are used to display the binary value of the data as shown in the table below.



■ Light On
□ Light Off
*See Hex Data Entry instructions below

SECTIONS [09], [10], [11], [28] AND [29]

These sections use the keypad lights to indicate which functions are active and which number keys to press to turn them on and off. When the section is entered, Lights 1 to 8 will display which functions are currently on. Pressing the number key corresponding to the light will alternately turn the function on and off and the light will follow. All functions can be turned off at once by pressing [0]. When the correct selections have been made, press [#] to save the selections in memory and return to the program mode where another section can be selected.

HEX DATA PROGRAMMING

Certain programming sections require hexadecimal (base 16) data. Hex numbering uses the digits 0 through 9 and the letters A through F. The letters A through F are represented by the keys [1] through [6]. To enter hex data, first press [*]; the "Ready" light will flash. Enter the hex value, then press [*] again; the "Ready" light will stop flashing.

To enter 'A': Enter [*1*]
To enter 'B': Enter [*2*]
To enter 'C': Enter [*3*]
To enter 'D': Enter [*4*]
To enter 'E': Enter [*5*]
To enter 'F': Enter [*6*]

Enter [*] ***before*** and ***after*** each digit. The last digit in each section does not require the final asterisk to be entered.

PROGRAMMING SECTIONS

[00] BINARY PROGRAMMING

This section is normally used upon instruction from factory technical personnel for specialized programming not covered by the standard programming instructions.

[01] FIRST TELEPHONE NUMBER

This is the first telephone number to which the communicator will dial. See Section [21] "Communicator Call Direction Options". After entering the Section [01], enter the telephone number the way you would dial it on a touch-tone telephone. Press [#] after the last digit to complete the telephone number programming.

The following 4 entries may be made in the telephone number if necessary.

Enter [*2*] to dial a * (Hex B)
Enter [*3*] for a 4 second pause (Hex C)
Enter [*4*] for a second dial tone search (Hex D)
Enter [*5*] for a # (Hex E)

The total number of digits including dial tone searches and pauses must not exceed 21. Remember to press [#] to complete entry of the telephone number. Enter two digits to program another section.

[02] FIRST ACCOUNT CODE

The first Account Code is always transmitted to the First Telephone Number to identify the customer. Enter a 4-digit number. If "HEX" digits A to F are required, enter [*] before and after the digit entry. Where a zero digit in the Account Code is required for BPS formats, use "Hex A" ([*]+[1]+[*]) to transmit 10 pulses. The receiver at the monitoring station interprets 10 pulses for a digit as a zero. If a 3-digit code is required as in 3/1 formats, enter [0] as the last digit. [0] represents a null digit where no pulses are transmitted.

[03] SECOND TELEPHONE NUMBER

This is the second telephone number to which the communicator will dial. See Section [01] "First Telephone Number" for programming instructions.

[04] SECOND ACCOUNT CODE

The Second Account Code is always transmitted to the Second Telephone Number. See Section [02] "First Account Code" for programming instructions.

PROGRAMMING REPORTING CODES (COMMUNICATION FORMATS 0 TO C)

Sections [05] to [07] are used to program the communicator reporting codes. A reporting code is transmitted along with the Account Code with each transmission. If the reporting codes are not programmed in these sections no transmission will be sent when an event (for example, an alarm, restoral, trouble, and so on) takes place. To prevent a transmission from being sent for any event in the following sections leave it unprogrammed or enter [00] as the reporting code.

Sections [05] and [06] each have 8 reporting codes. Section [07] has 3 reporting codes. Once the section number is entered, the keypad expects a series of 2-digit numbers to be entered for the number of reporting codes in that section. The keypad beeps twice and the "Armed" light flashes after each 2-digit number is entered. After the last 2-digit number is entered, programming of the current section is complete. The keypad will give a series of beeps, the "Ready" light will go off and the "Armed" light will go on. The keypad is then ready to accept the next 2-digit section number for programming.

When changing the reporting codes in a section, you can scroll to the code you wish to change by pressing the [F] key. Only codes actually changed will be altered in the EEPROM. Press [#] to exit from the programming sequence.

[05] ALARM REPORTING CODES CHANNELS 1 TO 8

Once the Section [05] is entered, the keypad expects eight 2-digit numbers to be entered as the alarm reporting codes for channels 1 to 8. These codes are used by the communicator when there has been an alarm on channels 1 to 8. Listed below are several programming examples and the resulting transmission using different formats for the reporting codes. Obtaining different formats requires entering data correctly for the Account Codes (Sections [02] or [04]), the reporting codes (Sections [05] to [07]), and the communication format options (Section [15]).

NOTE: When Downlook operation is enabled in Section [10] with Light 7, Channel 8 will be dedicated to Downlook functions and will report only if Downlook functions are disabled.

3/1 FORMAT: NON-EXTENDED REPORTING

Required:

3-digit Account Code in Sections [02] or [04]
For example, enter [1230] for Account Code 123
Formats [0], [1], [2], [3] or [4] depending on receiver type selected in Section [15]
Single digit reporting codes
For example, enter [30] for single digit code 3 (0 is a null digit where no pulses are transmitted)

Transmission sent:

123 3

4/2 FORMAT: NON-EXTENDED REPORTING

Required:

4-digit Account Code in Sections [02] or [04]
For example, enter [1234] for Account Code 1234
Formats [0], [1], [2], [3] or [4] depending on receiver type selected in Section [15]
2-digit reporting codes
For example, enter [31] for 2-digit code 31

Transmission sent:

1234 31

3/1 FORMAT: EXTENDED REPORTING

Required:

3-digit Account Code in Sections [02] or [04]

For example, enter [1230] for Account Code 123

Formats [8], [9], [A], [B] or [C] depending on receiver type selected in Section [15]

2-digit reporting codes

For example, enter [31] for 2-digit code 31

Transmission sent:

First round: 123 3

Second round: 333 1

If a transmission is not wanted for a particular reporting code, then enter 00 or FF to disable that reporting code.

DTMF FORMATS

Required:

4-digit Account Code in Section [02] or [04]

For example, enter [1234] for Account Code 1234.

Format [5] selected in Section [15]

2-digit reporting codes

For example, enter [31] for Code 31.

Transmission sent:

1234 I31 P, where I is a preprogrammed event identifier, and P is parity

Downlook protocol is similar for Format [5] except that the event identifiers ("I") for each Downlook event may be programmed in Section [08]. Enter a 4-digit Downlook Account Code in Section [32]. Refer to Downlook Module Set-up for a list of commonly used event identifiers.

[06] RESTORAL REPORTING CODES CHANNELS 1 TO 8

These reporting codes are used by the communicator to transmit a channel restoral for channels 1 to 8. Use instructions in Section [05] as a guide for programming.

[07] MAINTENANCE REPORTING CODES

These reporting codes are used by the communicator to transmit the low battery alarm, low battery restoral and the test transmission code.

[08] CONDITION CODES

Program eight 2-digit hexadecimal codes, in the range of "00" to "0F", for alarms on Channels 1 through 7 and the Downlook Test Transmission. Shown below are typical condition codes; consult your monitoring station to determine what condition codes are to be programmed.

Enter	*Event*
00	24-hour Test
01	Fire Alarm
02	Panic Alarm
03	Burglary Alarm
04	Closing
05	Opening
06	Low Battery
07	Medical Emergency
08	Installer/User Message
09	Restore
0A	Not Used
0B	Close Group
0C	Open Group
0D	Bypassing
0E	Clear Bypassing
0F	Auxiliary

[09] FIRST SYSTEM OPTION CODE

The First System Option Code is set using the keypad lights to represent the options shown in the table below. Once Section [09] is entered, the 8 lights will indicate the status of each option. Press a number key corresponding to the light to turn the option ON or OFF. Pressing 0 will turn all of the options off.

Light

[1] ON = Communicator disabled
• OFF = Communicator enabled

[2] • ON = Call First Telephone Number only
OFF = Back-up to Second Telephone Number

[3] • ON = DTMF dialing
OFF = Pulse dialing

[4] • ON = 120 second bypass of channels upon power up
OFF = Channels are active upon power up

[5] ON = 1300Hz identification tone enabled
• OFF = 1300Hz identification tone disabled

[6] • ON = Transmission abort enabled
OFF = Transmission abort disabled
See "Transmission Abort Feature", page 2.

[7] ON = Test Transmission with Downlook enabled
• OFF = Test Transmission with Downlook disabled

[8] ON = Alternate Dialing
• OFF = Normal Dialing

• ***Indicates default setting***

BACK-UP TO SECOND TELEPHONE NUMBER

When Back-up to Second Telephone Number is enabled, events will be copied to the Second Telephone Number when the First Telephone Number fails to communicate. The Second Telephone Number will then communicate the events.

If the Second Telephone Number fails to communicate, the events will be copied to the First Telephone Number and an audible "fail to communicate" trouble will be generated.

ALTERNATE DIALING

When Alternate Dialing is selected, the panel will alternate between dialing the First Telephone Number and the Second Telephone Number until each number has been dialed 8 times. Downlook information will be transmitted to whichever telephone line responds first.

Important Note: When Alternate Dialing is selected, the Back-up to Second Telephone Number and Communicator Call Direction features are disabled.

IDENTIFICATION TONE

When enabled in Section [09], the communicator will transmit a "beep" on the line every 2 seconds after dialing until the proper handshake is received. This tone is intended to alert the listener who has answered the call that a communicator is placing a call. Note that this feature will affect all communication formats programmed in Section [15].

TRANSMISSION ABORT

To cancel an unwanted transmission, use a normally open switch to short the YEL and GRN keypad terminals.

If the 120-second Bypass on Power Up option is enabled (Section [09] Light 4), the alarm circuits will be bypassed after each transmission is cancelled. Ensure that all channels are restored before cancelling a transmission.

If the Transmission Abort feature is enabled, the keypad will beep and the LEDs will flash. Pressing the [#] key disables this feature for 30 seconds and stops the LEDs flashing for that period.

DOWNLOOK TEST TRANSMISSION

When this feature is enabled, Channel 1 must be connected to an enabled camera; all cameras enabled in Section [29] will transmit one picture each. Also, Normal Test Transmission must be enabled in Section [10] with Light 5.

[10] SECOND SYSTEM OPTION CODE

Use the same method of programming as Section [09].

Light

[1] ON = Downloading answer is enabled
• OFF = Downloading answer is disabled
See Section [25].

[2] ON = Downloading call-back enabled
• OFF = Downloading call-back disabled
See DLS-1 manual.

[3] ON = Answering machine over-ride is enabled
• OFF = Answering machine over-ride is disabled
See Section [26].

[4] ON = Periodic downloading is enabled
• OFF = Periodic downloading is disabled
Program time in Section [13].

[5] • ON = Test transmission is enabled
OFF = Test transmission is disabled
Program time in Section [13].

[6] ON = Radionics 1400Hz Handshake
• OFF = Radionics 2300Hz Handshake

[7] • ON = Downlook events enabled
OFF = Downlook events disabled

[8] ON = Downlook follows back-up to Second Telephone Number
• OFF = Downlook to First Telephone Number

• ***Indicates default setting***

[11] FOR FUTURE USE

[12] SWINGER SHUTDOWN

Enter a 2-digit number in this section.

This section defines the number of attempts (alarm and restoral pairs) per channel that the communicator will make before it shuts down for that channel. The number of alarms already transmitted will be reset to 0 every 24 hours at 12:00am, when the Installer's Code is entered, or after a transmission abort.

[13] SYSTEM TIMES

Program four 2-digit numbers in this section:

- Test transmission/periodic download time. Enter the time in the 24-hour clock format; enter 00 to 23 for the hour, and 00 to 59 for the minutes. ***If an invalid time is entered, this function will not work***
- Test transmission time/periodic download time (in days)
- Loop response time (× 10 ms). The loop response time determines how long an alarm condition must be present before a loop generates an alarm. Valid entries are in the range of 01 to 99 for times of 10ms to 990ms.

[14] INSTALLER'S CODE

Once in this section enter a 4-digit code. Only use the digits 0 - 9 as code numbers. Do not press [*] or [#]. If an error is made in entering the code, complete entering the 4 digits then enter the section number again to enter the correct code.

[15] COMMUNICATION FORMATS

This section sets the format which will be sent to each of the two telephone numbers programmed in Sections [01] and [03]. For each telephone number, enter one digit from the list below. See Hex data programming section for digits [A] through [F]. The selection for each telephone number is determined by the type of receiver being called. Enter the format number of the First Telephone Number first. It is necessary to program both telephone format numbers even if the first telephone number is the only one being used. Select from the following options.

[0] Silent Knight, Ademco, Scantronics Slow, 10 BPS (1400Hz handshake), non-extended

[1] Sescoa, Franklin, DCI, Vertex, 20 BPS (2300Hz handshake) 3/1, 3/2 and 4/1, 4/2, non-extended

[2] Silent Knight Fast, 20 BPS (1400Hz handshake), non-extended

[3] Radionics, (1400Hz / 2300 Hz handshake) 3/1, 4/2, non-extended format*

[4] Radionics, (1400Hz / 2300 Hz handshake) 3/1, 4/2, non-extended with parity format*

[5] Sur-Gard 4/3 DTMF with parity, 2300Hz, non-extended

[6] ***Not Used***

[7] ***Not Used***

[8] Silent Knight, Ademco, Scantronics Slow 10 BPS (1400Hz handshake), extended

[9] Sescoa, Franklin, DCI, Vertex, 20 BPS (2300Hz handshake) 3/1, extended format

[A] Silent Knight Fast, 20 BPS (1400Hz handshake), extended

[B] Radionics, (1400Hz / 2300Hz handshake) 3/1 extended*

[C] Radionics, (1400Hz / 2300Hz handshake) 3/1, extended with parity format*

[D] ***Not Used***

[E] ***Not Used***

[F] ***Not Used***

* See Section [10] for Radionics Hanshake Option

20 BPS FORMATS

20 BPS is the standard fast format used on DCI, Franklin, Sescoa and Vertex receivers.

DATA=1800Hz KISSOFF=2300Hz SPEED=20 BAUD

RADIONICS FORMAT

For conventional 3/1 Radionics format the communications mode should be set to either Radionics rounds [B] or Radionics parity [C]. The extended version of the Radionics format is normally used. The following guidelines have been provided to help in configuring the DSC8400 for Radionics format.

1. The customer Account Code must be only 3 digits with a zero making up the 4th digit (for example, program 1230 for Account Code 123).
2. The channel alarm reporting codes must all be single digit numerical codes with no extended second round being sent (for example, Channel 1 = 10, Channel 2 = 20; Channel 6 = 60). The zero in the second digit of the reporting code tells the DSC8400 not to send an extended round.
3. All other non-alarm reporting codes must be set up to send an extended second round. The first digit of the reporting code is used to identify the event while the second or extended digit is used to associate the event with a particular item. (For example, a reporting code of E3 represents a restoral on channel 3; E for "restoral" and 3 for "channel 3").
4. The following is a list of first digit identifiers that should be used with the Radionics format.
   - Restorals "E" Example "E3" = Restore Channel 3
   - Troubles "F" Example "F5" = Trouble from Source 5
   - Miscellaneous "D" Example "D1" = Test Transmission

[16] PROGRAMMABLE OUTPUT OPTIONS (PGM TERMINALS)

Each PGM output is programmable as option [0] (not used) or one of options [1] to [9]. Options [1] to [9] can each be programmed to only one PGM output at a time and cannot be used by two outputs simultaneously.

Note that PGM 4 is only available for use if Downlook functions are disabled.

[0] PGM output Not used

[1] Strobe Output (alarm output) The PGM terminal switches to ground on alarm for the duration of the period programmed in Section [17].

[2] Failure to Communicate FTC causes the output to go low until there is a successful communication.

[3] Telephone Line Trouble A telephone line trouble causes the output to go low until the telephone line is restored.

[4] Unsuccessful Attempts Reached After the number of unsuccessful dialing attempts programmed in Section [20] is reached, this output will go low for the period programmed in Section [17].

[5] Ground Start Pulse This option provides a pulse for the period programmed in Section [17] before the dialing begins for any communication (PGM 1 only.)

[6] Successful Communication After a successful communication, the output will go low for the period programmed in Section [17].

[7] Kissoff Output This causes the PGM output to go low after communications are completed and the the communicator has hung up. There will be no pulse if the communication was unsuccessful.

[8] Low Voltage Output If the DC supply voltage goes low the PGM output will go low until the voltage level is restored.

[9] Line Seized Output When the communicator seizes the telephone line to dial the monitoring station, the PGM OUT will be activated.

[17] PROGRAMMABLE OUTPUT TIMERS

Each PGM output has an independent timer to determine the duration of output's activation. The time can be from 01 to 99 seconds, or the time will be applied when the option has restored as in options [2], [3] and [8] in Section [16].

[18] TELEPHONE LINE MONITORING TIMER

This programmable timer determines the delay until the digital communicator indicates a Telephone Line Monitoring fault. The time is programmed in multiples of 10 seconds; enter a 3-digit number in the range of 001 to 255. Programming as 001 will give a delay time of 10 s (001 × 10s = 10 s); programming as 255 will give a delay time of 42.5 minutes (255 × 10 s = 2550 s, or 42.5 minutes).

[19] DOWNLOOK DELAY TIMER

When a channel is activated, the Downlook Module will wait for the Delay Time programmed in this section to expire before capturing and transmitting a video image.

The Downlook Delay Time is programmable in 100 millisecond (ms) increments. Program a delay time between [00] (0 seconds) and [99] (9900 ms, or 9.9 seconds). The default delay time is [10] for 1000 ms (1 second).

[20] NUMBER OF UNSUCCESSFUL DIALING ATTEMPTS

This counter sets the number of attempts the digital communicator will try to communicate before turning on the PGM output option [4].

[21] COMMUNICATOR CALL DIRECTION OPTIONS

This section requires four 1-digit entries using digits 0 to 3 only. This section defines how the communicator will call the telephone numbers programmed in Sections [01] and [03].

- Channels 1 to 4 Alarms and Restorals
- Channels 5 to 8 Alarms and Restorals
- Maintenance Alarms and Restorals
- Not used

Enter ONE digit for each of the above categories from the following list.

[0] Disables the function (no transmission for the group)

[1] Call First Telephone Number and backup to the Second Telephone Number when Section [09] light 2 is set to OFF and the digital communicator has made 8 unsuccessful tries on the First Telephone Number

[2] Call the Second Telephone Number only (Downlook images are not transmitted)

[3] Always call both telephone numbers

If the [#] key is pressed during data entry you will be returned to the programming mode and data for this section will NOT be saved.

NOTE: Alternate dialing and Back-up to Second Telephone Number affect the Communicator Call Direction Options; refer to Section [09].

If split reporting is used and the Downlook Test Transmission is enabled, then assign Channel 1 through 4 Alarms and Restorals to Option [1] Call First Telephone Number.

[22] DOWNLOADING TELEPHONE NUMBER

This telephone number is used to call the downloading computer. See Section [01] for programming instructions.

[23] DOWNLOADING ACCESS CODE

This 4-digit code allows the digital communicator to confirm that it is talking with a valid downloading computer. The default code is 8484.

[24] DIGITAL COMMUNICATOR IDENTIFICATION CODE

This 4-digit code allows the downloading computer to confirm the identity of the DSC8400. The default code is 8401.

[25] NUMBER OF RINGS BEFORE ANSWERING

Two decimal digits must be programmed in this section to determine the number of rings to be received before the digital communicator answers the telephone line. Enter a value in the range of [01] to [12].

[26] ANSWERING MACHINE DOUBLE CALL TIMER

This section sets the time between calls when using the answering machine over-ride option enabled in Section [10]. Program a time between 001 to 249 seconds.

[27] 12 V SW PGM OUT

Enter a '0' and an option number from Section [16]. Enter two digits for the number of seconds that this output is to be active.

NOTE: Do not program as Output Option [5] Ground Start Pulse or as any option already selected in Section [16].

[28] CHANNEL INPUT TRIGGERING OPTION

Each channel can be programmed to activate when there is positive or negative signal applied. The default is to trigger on a positive signal.

If relays are to be used, positive triggering is associated with a normally open contact, and negative triggering is associated with a normally closed contact.

[29] DOWNLOOK CAMERA MASK

This section is used to determine which channels will be able to activate the Downlook module. If a light is ON, alarms on that channel will activate the Downlook module. When a light is OFF, alarms on that channel will not activate the Downlook module.

Be sure to enable cameras for all channels used for Downlook operations; channels not used for Downlook operation should not have cameras enabled for them.

[30] RESET TO FACTORY DEFAULT

This section is used to reset the EEPROM memory to the original factory default values. Enter [30][Installer's Code] to reset the EEPROM and restart the system as though power has just been applied.

HARDWARE RESET OF EEPROM MEMORY TO FACTORY DEFAULTS

If the Installer's Code is lost through inadvertent programming, the only means of reprogramming the system is via a hardware reset. If the installer's lockout is enabled, there is no way to reprogram the system without entering the correct Installer's Code.

Follow the sequence outlined below to reset the digital communicator to factory default conditions.

1. Disconnect power supply.
2. Use a jumper to short the "EEPROM RESET" pins together.
3. Apply power to the DSC8400.
4. Wait for 10 seconds then remove shorting jumper.
5. The system will have reloaded the EEPROM with the factory default codes.

[31] NUMBER OF PICTURES PER CHANNEL

This section determines how many images will be captured by the Downlook module when an alarm occurs on each channel. The maximum number of images for each channel is 8. Enter a 2-digit number from 01 to 08 for each channel.

[32] DOWNLOOK ACCOUNT CODE

This 4-digit code is used to identify the system when Downlook transmissions are made. Enter a 4-digit code in this section. Refer to Section [02] for programming instructions.

[90] INSTALLER'S LOCKOUT ENABLE

This feature is enabled by entering [90][Installer's Code] while in the programming mode. A factory default (hardware or software) will not reset the Installer's Code or the Downloading Access Code once this feature is enabled. A digital communicator that has this lockout feature enabled will give a distinctive audible indication upon power up. This indication is the phone line relay clicking ten times. Make sure that your new Installer's Code has been entered correctly before enabling this feature because there is no way of re-entering the programming mode without the new code. Even a reset to the factory default will not change the Installer's Code back to the default setting.

[91] INSTALLER'S LOCKOUT DISABLE

Entering [91][Installer's Code] when in the programming mode will disable the installer's lockout feature.

NOTE: Panels returned for service with the Installer's lockout feature enabled and no other apparent problems will be subject to an additional service charge.

[99] SYSTEM 24 HOUR CLOCK

Program the time of day in the 24-hour clock (military time) format. Enter 00 to 23 for the hour, and 00 to 59 for the minute.

[01] First Telephone Number Page 9

- Enter [#] to complete the telephone number entry
- Enter [0] for the digit "0" (zero) in the telephone number

_____

[02] First Account Code Page 9

- For a 3-digit code, enter [0] for the last digit (BPS formats only)
- Enter [*1*] (HEX A) for the digit "0" (zero) in the Account Code. For example, Code 103 would be entered as [1]+[*1*]+[3]+[0]

_____

[03] Second Telephone Number Page 9

_____

[04] Second Account Code Page 9

_____

[05] Alarm Reporting Codes Channels 1 to 8 Page 9

- For single-digit reporting codes, enter [0] as the second digit
- Enter [*1*] (HEX A) to transmit a "0"

____ Channel 1 Alarm
____ Channel 2 Alarm
____ Channel 3 Alarm
____ Channel 4 Alarm
____ Channel 5 Alarm
____ Channel 6 Alarm
____ Channel 7 Alarm
____ Channel 8 Alarm ***Normally reserved for Downlook operation When Downlook is disabled, Channel 8 functions as a normal channel***

[06] Restoral Reporting Codes Channels 1 to 8 Page 10

____ Channel 1 Restoral
____ Channel 2 Restoral
____ Channel 3 Restoral
____ Channel 4 Restoral
____ Channel 5 Restoral
____ Channel 6 Restoral
____ Channel 7 Restoral
____ Channel 8 Restoral ***Normally reserved for Downlook operation***

[07] Maintenance Reporting Codes Page 10

____ Low Battery Trouble
____ Low Battery Restore
____ Test Transmission Code

[08] Condition Codes *Page 10*

Valid entries are hexadecimal "00" through "0F".

NOTE: Contact the monitoring station for appropriate event identifiers

Default		
0 3	____	Channel 1 Downlook Identifier
0 3	____	Channel 2 Downlook Identifier
0 3	____	Channel 3 Downlook Identifier
0 3	____	Channel 4 Downlook Identifier
0 3	____	Channel 5 Downlook Identifier
0 3	____	Channel 6 Downlook Identifier
0 3	____	Channel 7 Downlook Identifier
0 0	____	Test Transmission Downlook Identifier

[09] First System Option Code *Page 10*

Default			*Zone Light ON*	*Zone Light OFF*
OFF	____	Light 1	Communicator disabled	Communicator enabled
ON	____	Light 2	Call First Telephone Number only	Backup to Second Telephone Number
ON	____	Light 3	DTMF Dialing	Pulse dialing
ON	____	Light 4	120 second power-up bypass	Disabled
OFF	____	Light 5	1300Hz identification tone	Disabled
ON	____	Light 6	Transmission Abort enabled	Disabled
OFF	____	Light 7	Test Transmission with Downlook	Disabled
OFF	____	Light 8	Alternate Dialing	Normal Dialing

[10] Second System Option Code *Page 11*

Default			*Zone Light ON*	*Zone Light OFF*
OFF	____	Light 1	Downloading Answer enabled	Disabled
OFF	____	Light 2	Downloading Call Back	Disabled
OFF	____	Light 3	Answering Machine Override	Disabled
OFF	____	Light 4	Periodic downloading	Disabled
ON	____	Light 5	Test Transmission	Disabled
OFF	____	Light 6	Radionics 1400Hz	Radionics 2300Hz
ON	____	Light 7	Downlook Enabled	Downlook Disabled
OFF	____	Light 8	Downlook backup to Second Telephone Number	Downlook for First Telephone Number

[11] For Future Use *Page 11*

[12] Swinger Shutdown Page 11

Default

0 3	___	Enter 00 to 99 where 00 means channels do not shut down.

[13] System Times Page 11

Default

9 9 9 9	_____	Test Transmission/Periodic Download Time (Enter 00 to 23 for hours, 00 to 59 for minutes)
3 0	___	Test Transmission/Periodic Download Interval (Days: DD - Enter 01 to 99)
5 0	___	Loop Response Time (× 10ms; Enter 01 to 99; do not enter 00)

[14] Installer's Code Page 12

Default

8 4 0 0	_____	Enter 4 digits from 0 to 9. Do not enter [*] or [#].

[15] Communication Formats Page 12

Default

5	__	First Telephone Number
5	__	Second Telephone Number

NON EXTENDED

[0] Silent Knight, Ademco, Scantronics Slow, 10 BPS, 1400Hz

[1] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300Hz

[2] Silent Knight Fast, 20 BPS, 1400Hz

[3] Radionics•

[4] Radionics with parity•

[5] Sur-Gard 4/3 DTMF with parity, 2300Hz

EXTENDED

[8] Silent Knight, Ademoc, Scantronics Slow, 10BPS, 1400Hz

[9] Sescoa / Franklin / DCI / Vertex, 20BPS, 2300Hz

[A] Silent Knight Fast, 20 BPS, 1400Hz

[B] Radionics•

[C] Radionics with parity•

• ***See Section [10] for 1400Hz / 2300Hz handshake option***

[16] Programmable Output Options Page 13

Default

5	__	PGM Output 1	***Do not program more than one output with the same option***
6	__	PGM Output 2	
4	__	PGM Output 3	
0	__	PGM Output 4	***PGM 4 is only available when Downlook functions are disabled***

[0] PGM output not used

[1] Strobe output (Alarm output)

[2] Failure to communicate

[3] Telephone line trouble

[4] Unsuccessful attempts reached (The number of unsuccessful attempts is programmed in Section [20])

[5] Ground start pulse (PGM 1 only)

[6] Successful Communication

[7] Kissoff output

[8] Low voltage output

[9] Line seized output

[17] Programmable Output Timers Page 13

Default

0 2	___	PGM Output 1 (in seconds) Program times from 01 to 99 seconds.
0 2	___	PGM Output 2 (in seconds)
0 5	___	PGM Output 3 (in seconds)
0 0	___	PGM Output 4 (in seconds) ***PGM 4 is only available when Downlook functions are disabled***

[18] Telephone Line Monitoring Timer Page 13

Default

0 0 3 _____ [001 to 255] x 10 seconds

[19] Downlook Delay Timer Page 13

Default

1 0 ___ [00 to 99] x 100 ms

[20] Number of Unsuccessful Dialing Attempts Page 13

Default

0 6 ___ [01 to 07] See Section [16], Option 4, "Unsuccessful Attempts Reached"

[21] Communicator Call Direction Options Page 13

Default

1	___	Channels 1 - 4 Alarms and Restorals
1	___	Channels 5 - 8 Alarms and Restorals
1	___	Maintenance Alarms and Restorals
0	___	Not Used

Enter:

[0] No transmission for this group

[1] Call 1st phone number and backup to 2nd phone number. (Section [09] light 2 OFF and 2nd phone number must be programmed)

[2] Call 2nd phone number only (Downlook images are not transmitted)

[3] Always call both phone numbers

NOTE: Alternate Dialing and Back-up to 2nd Phone Number affect Call Direction options. Refer to Section [09].

[22] Downloading Telephone Number Page 13

_____

[23] Downloading Access Code Page 13

Default

8 4 8 4 _____

[24] Digital Communicator Identification Code Page 14

Default

8 4 0 1 _____

[25] Number of Rings Before Answering Page 14

Default

0 8 ____ Enter 01 to 12.

[26] Answering Machine Double Call Timer Page 14

Default

0 6 0 ____ [001 to 249] seconds

[27] 12V Sw PGM Out Page 14

Default

0 9 0 Option from [16]

0 1 ____ 12V Sw Timer Period (01 to 99 seconds)

[28] Channel Input Triggering Options Page 14

Default

OFF ____ Channel 1 Alarm

OFF ____ Channel 2 Alarm

OFF ____ Channel 3 Alarm

OFF ____ Channel 4 Alarm

OFF ____ Channel 5 Alarm

OFF ____ Channel 6 Alarm

OFF ____ Channel 7 Alarm

OFF ____ Channel 8 Alarm

Zone Light OFF = Positive Trigger (Normally Open Contact)

Zone Light ON = Negative Trigger (Normally Closed Contact)

[29] Downlook Camera Mask Page 14

If the LED is ON, the Downlook Module will capture images for that channel.

Default

ON ____ Channel 1 Camera

OFF ____ Channel 2 Camera

OFF ____ Channel 3 Camera

OFF ____ Channel 4 Camera

OFF ____ Channel 5 Camera

OFF ____ Channel 6 Camera

OFF ____ Channel 7 Camera

[30] Reset to Factory Default Page 14

Enter [30][Installer's Code]

[31] Number of Pictures per Channel Page 14

Default

0 1	____	Number of Pictures for Channel 1	**Enter 01 to 08 for each channel.**
0 1	____	Number of Pictures for Channel 2	
0 1	____	Number of Pictures for Channel 3	
0 1	____	Number of Pictures for Channel 4	
0 1	____	Number of Pictures for Channel 5	
0 1	____	Number of Pictures for Channel 6	
0 1	____	Number of Pictures for Channel 7	

[32] Downlook Account Code Page 14

_____

[90] Installer's Lockout Enable Page 14

Enter [90][Installer's Code].

[91] Installer's Lockout Disable Page 14

Enter [91][Installer's Code].

[99] System 24 Hour Clock Page 14

Enter HH:MM; 00 to 23 for hours, 00 to 59 for minutes

FOR THE RECORD

Customer _____

Address _____

_____

Phone: _____ Installation Date _____

Contact:

Name _____ Phone _____

Name _____ Phone _____

Name _____ Phone _____

Version _____ Installer's Code _____

Receiver Phone 1 _____ Account Code 1 _____

Receiver Phone 2 _____ Account Code 2 _____

_____ Downlook Account _____

Channel	Type	Protected Area	Video
1			
2			
3			
4			
5			
6			
7			
8			

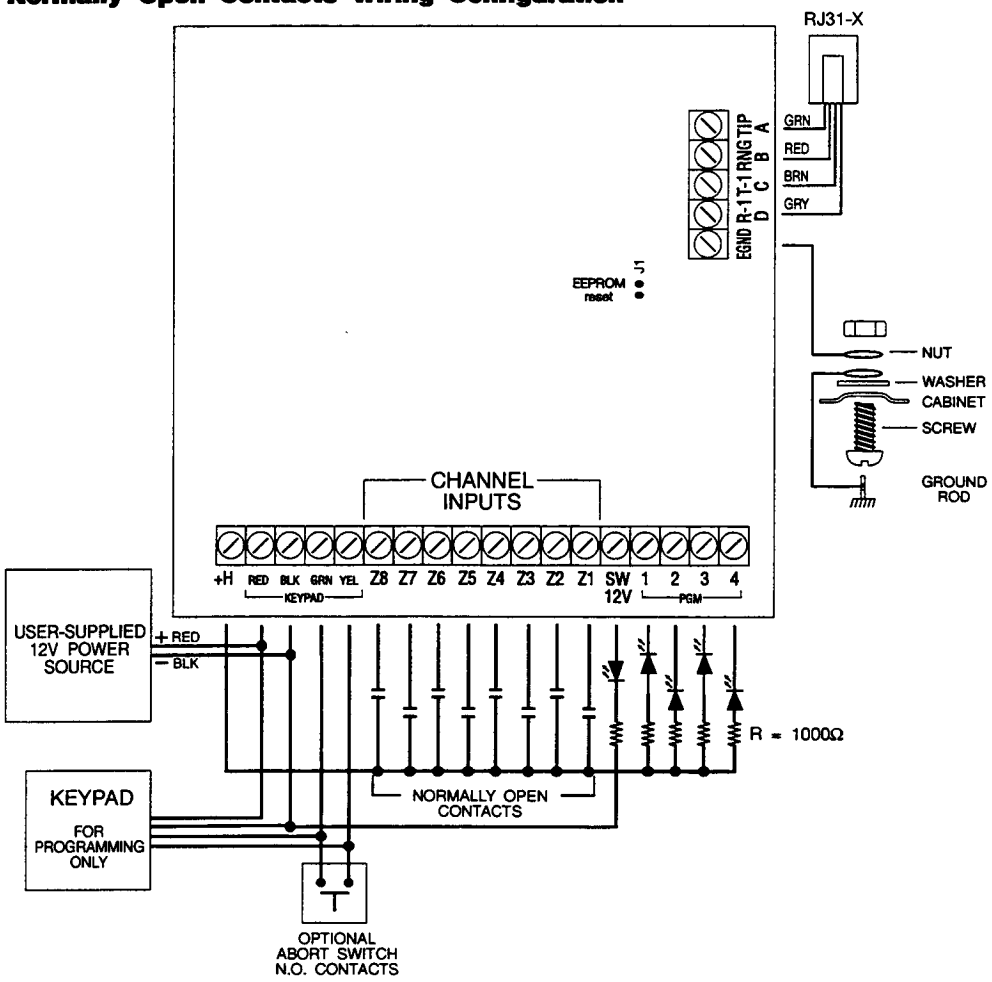
DOWNLOOK ☐ ENABLED ☐ DISABLED

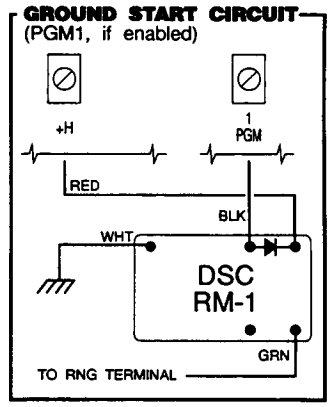
INSTALLER'S LOCK OUT ☐ ON ☐ OFF

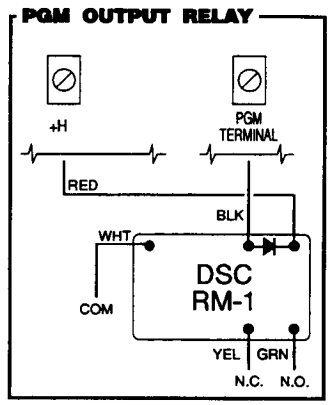
INSTALLER'S NAME _____

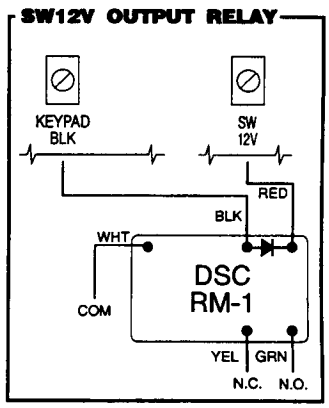
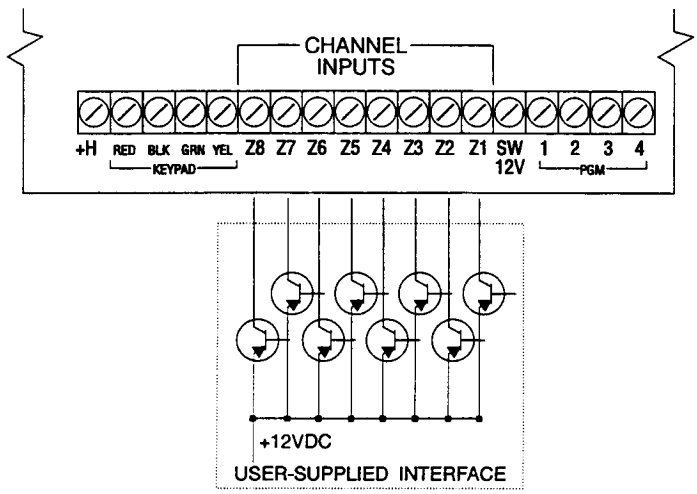
HOOK-UP DIAGRAM

Normally Open Contacts Wiring Configuration









Voltage Trigger Wiring Configuration