Sur-Gard System II

Single Line Network Receiver

Operating Manual

***WARNING**: This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.*

version 1.1

GENERAL DESCRIPTION of the EQUIPMENT and CLASSIFICATION.

SYSTEM II - SAFETY INSTRUCTIONS

The SYSTEM II equipment is a CLASS 1, DESK-TOP (MOVABLE) or RACK-MOUNTED (FIXED - STATIONARY), EQUIPMENT, PLUGGABLE TYPE A using a DETACHABLE POWER SUPPLY CORD; it is designed to be INSTALLED, OPERATED and MAINTAINED by SERVICE PERSONS ONLY. [person having appropriate technical training and experience necessary to be aware of hazards to which that person may be exposed in performing a task and of measures to minimize the risks to that person or other persons]. The equipment SYSTEM II shall be installed in RESTRICTED ACCESS LOCATIONS within an environment that provides the Pollution Degree max 2, and overvoltages category II – non-hazardous locations, indoor only.

The POWER SUPPLY CORD serves as a means of disconnection from the MAINS. The OUTLET used to power the equipment shall be installed near the equipment, and shall be easily accessible. The equipment must be connected to a socket-outlet with a protective earthing connection!

WHEN RACK-MOUNTED, IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THE FINAL ASSEMBLY that includes SYSTEM II EQUIPMENT IS COMPLIANT with the applicable requirements from the point of view of STABILITY; the rack-mounted equipment must be secured to the building structure before operation; all wiring and installation shall be in accordance with electrical codes acceptable to the authorities that have jurisdiction where the equipment is installed, serviced and operated; not more than 3 (three) system II units mounted within the same rack shall be powered from the same branch circuit; use a different branch circuit for any group larger than 3 (three) units.

Interconnecting cables shall be routed in a manner that prevents: excessive strain on wire and on terminal connections; loosening of terminal connections; damage of conductor insulation.

This product uses Lithium Batteries. Improper handling of lithium batteries may result in heat generation, explosion or fire, which may lead to personal injuries.

CONNECTION TO THE MAINS:

1. Connect first the DETACHABLE POWER SUPPLY CORD to the IEC 320 connector located on SYSTEM II equipment.

CAUTION: The Ethernet communication lines must be connected first to an Approved (acceptable to the local authorities) type NID (Network Interface Device) before leaving the premises (e.g., UL installations, UL60950 Listed NID for ULC Installations CAN/CSA C22.2 No. 60950-1 Listed NID).

NO REPAIRS IN THE FIELD ARE ALLOWED. THE EQUIPMENT SYSTEM II MUST BE RETURNED TO THE MANUFACTURER FOR REPAIRS.

FCC Compliance Statement

CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The user may find the following booklet prepared by the FCC useful: “How to Identify and Resolve Radio/Television Interference Problems”. This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Table of Contents

WARNING Please Read Carefully

Note to Installers

This warning contains vital information. As the only individual in contact with system users, it is your responsibility to bring each item in this warning to the attention of the users of this system.

System Failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

- Inadequate Installation

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that all access points and areas are covered. Locks and latches on windows and doors must be secure and operate as intended. Windows, doors, walls, ceilings and other building materials must be of sufficient strength and construction to provide the level of protection expected. A reevaluation must be done during and after any construction activity. An evaluation by the fire and/or police department is highly recommended if this service is available.

- Criminal Knowledge

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that a security system be reviewed periodically to ensure that its features remain effective and that it be updated or replaced if it is found that it does not provide the protection expected.

- Access by Intruders

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

- Power Failure

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as a security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

- Failure of Replaceable Batteries

This system's wireless transmitters have been designed to provide several years of battery life under normal conditions. The expected battery life is a function of the device environment, usage and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

- Compromise of Radio Frequency (Wireless) Devices

Signals may not reach the receiver under all circumstances which could include metal objects placed on or near the radio path or deliberate jamming or other inadvertent radio signal interference.

- System Users

A user may not be able to operate a panic or emergency switch possibly due to permanent or temporary physical disability, inability to reach the device in time, or unfamiliarity with the correct operation. It is important that all system users be trained in the correct operation of the alarm system and that they know how to respond when the system indicates an alarm.

- Smoke Detectors

Smoke detectors that are a part of this system may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building.

Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fires equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches or arson.

Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

- Motion Detectors

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

- Warning Devices

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners or other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

- Telephone Lines

If telephone lines are used to transmit alarms, they may be out of service or busy for certain periods of time. Also an intruder may cut the telephone line or defeat its operation by more sophisticated means which may be difficult to detect.

- Insufficient Time

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time to protect the occupants or their belongings.

- Component Failure

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.

- Inadequate Testing

Most problems that would prevent an alarm system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an earthquake, an accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices and any other operational devices that are part of the system.

- Security and Insurance

Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.

Limited Warranty

Digital Security Controls warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify Digital Security Controls in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period. There is absolutely no warranty on software and all software products are sold as a user license under the terms of the software license agreement included with the product. The Customer assumes all responsibility for the proper selection, installation, operation and maintenance of any products purchased from DSC. Custom products are only warranted to the extent that they do not function upon delivery. In such cases, DSC can replace or credit at its option.

International Warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls shall not be responsible for any customs fees, taxes, or VAT that may be due.

Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- damage incurred in shipping or handling;
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls such as excessive voltage, mechanical shock or water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls);
- defects caused by failure to provide a suitable installation environment for the products;
- damage caused by use of the products for purposes other than those for which it was designed;
- damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

Items Not Covered by Warranty

In addition to the items which void the Warranty, the following items shall not be covered by Warranty: (i) freight cost to the repair centre; (ii) products which are not identified with DSC's product label and lot number or serial number; (iii) products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection or testing to verify any warranty claim. Access cards or tags returned for replacement under warranty will be credited or replaced at DSC's option. Products not covered by this warranty, or otherwise out of warranty due to age, misuse, or damage shall be evaluated, and a repair estimate shall be provided. No repair work will be performed until a valid purchase order is received from the Customer and a Return Merchandise Authorisation number (RMA) is issued by DSC's Customer Service.

Digital Security Controls's liability for failure to repair the product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property. The laws of some jurisdictions limit or do not allow the disclaimer of consequential damages. If the laws of such a jurisdiction apply to any claim by or against DSC, the limitations and disclaimers contained here shall be to the greatest extent permitted by law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so that the above may not apply to you.

Disclaimer of Warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) And of all other obligations or liabilities on the part of Digital Security Controls Digital Security Controls neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.

WARNING: Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Installer's Lockout

Any products returned to DSC which have the Installer's Lockout option enabled and exhibit no other problems will be subject to a service charge.

Out of Warranty Repairs

Digital Security Controls will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls determines to be repairable will be repaired and returned. A set fee which Digital Security Controls has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

Section 1 - Introduction

1.1 Features

The SG-System II is a single line network receiver intended for remote monitoring of commercial fire and burglary systems. The system can be configured for "desktop stand-alone" operation (vertical stacking of up to 4 systems) or rack mounting. The SG-System II can monitor up to 1024 accounts including 512 supervised accounts.

NOTE: System must be rack mounted for UL and ULC Listed Installations.

The SG-System II real time clock and calendar stamps all received alarm data which is then transmitted to a central station computer via TCP/IP, USB port; transmitted directly to a printer using the parallel printer port; and viewed on the LCD of the front panel. System configuration can be programmed using a PC with SG-System II Console Software or locally using the scroll buttons and LCD.

The SG-System II receives alarm information from panels over a LAN/WAN or internet network.

SG-System II features include the following:

- Provides higher line security than conventional dial up panels with the polling feature.
- Provides fast transmission since dialing or handshaking is not required.
- The control panel is the originator of the signals and as such will be the one requesting the ACK from the central station.
- Network trouble detection is displayed on LCD/Printer and automation software.
- Disconnect trouble detection.
- Static IP for programming of the network protocols.
- Data network polling environment for replacement of an existing DVACS network.
- SIA event descriptors are used to transmit information to the central station from the control panel through the PC-Link connection.
- 4 and 10 digit Contact ID.
- A security function communicates to the central station when a module is removed and replaced.
- USB 1.1 connection for Console and Automation

Figure 1.1, SG-System II Receiver

1.2 Software Compatibility

The following examples of Central Station automation software are compatible with the SG-System II interface.

Refer to the DSC website "http://www.dsc.com/Default.aspx?id=79" for a comprehensive list of compatible Automation Software Manunufacturers:

MAS	**DICE**	**SIMS II**	**GENESYS**
S.I.S.	**IBS**	**MicroKey**	

NOTE: Automation connections are considered supplementary per UL864 listing. Compatibility with the automation software in a system used at a central station is intended to be handled under a separate UL1981 software and/or site certification evaluation.

1.3 Approvals

1.3.1Industry Approvals

The System II meets the requirements of the following standards:

- UL 1610 Central Station Burglar Alarm Units
- UL 864 Standard for Control Units and Accessories for Fire Alarm Systems
- CAN/ULC-S304-06 Signal Receiving Centre and Premises Burglar Alarm Control Units
- CAN/ULC-S559-04 Equipment for Fire Signal Receiving Centres and Systems
- EN60950-1:2001 Standard for Information Technology Equipment.
- AS/NZS 60950:2000 Information Technology Equipment - Safety
- CISPR22 Information Technology Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurements
- EN50130-4 Immunity requirements for components of fire, intruder and social alarm systems.

This equipment shall be installed in accordance with the requirements of NFPA72, NFPA70, and the authority having jurisdiction.

The Equipment is ULC listed for active communication channel security level A4 when used in conjunction with T-Link TL250 and T-Link TL300 Internet/Intranet alarm communicators. For this type of application the supervision and encryption features have to be enabled.

For ULC Installations the equipment shall be installed in accordance with the requirements of ULC-S561 and ULC-S301 Standards and the authority having jurisdiction.

UL864 Programming Requirements

Table 1-1: UL864 Programming Requirements

NOTICE to Users, Installers, Authorities having Jurisdiction, and other involved parties				
This product incorporates field programmable software. In order for the product to comply with the requirements in the ***Standard for Control Units and Accessories for Fire Alarms Systems***, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.				
Opt#	**Program Option**	**Page**	**Permitted in UL 864? (Y/N)**	**Possible Settings**	**Settings Permitted (UL 864)**
13	Mute Buzzer	12	N	ON/OFF	OFF
20	Mask UPS AC 1	12	N	ON/OFF	OFF
21	Mask UPS BAT 1	12	N	ON/OFF	OFF
29	Mask Parallel 1 Printer	13	N	ON/OFF	OFF
2A	Mask Serial 1 Printer	13	N	ON/OFF	OFF
39	Mask USB Printer	14	N	ON/OFF	OFF
53	Transmitter Absent Debounce Time	16	N	1E-FFH (30-255 Sec)	05AH (90 Secs)
57	Network Present Trouble Mask	16	N	ON/OFF	OFF
58	Network Absent Trouble Mask	16	N	ON/OFF	OFF
59	Transmitter Restoral Trouble Mask	16	N	ON/OFF	OFF
5A	Transmitter Failure Trouble Mask	16	N	ON/OFF	OFF
5B	Transmitter Swap Trouble Mask	16	N	ON/OFF	OFF
5C	Transmitter Unencrypted Trouble Mask	16	N	ON/OFF	OFF
5D	Transmitter Report Trouble Mask	17	N	ON/OFF	OFF
61	Option Change Trouble Mask	17	N	ON/OFF	OFF
6B	Busy Out	17	N	00,01,04,05	00

Parallel Printers:

For UL and ULC Listed applications the following UL Listed printers can be used with the System II

- DMP-SCS-PTR
- Seiko DPU-414

Serial Printers:

For UL and ULC Listed applications the following UL Listed printer can be used with the SG-System II

- Seiko DPU-414

NOTE: Do NOT use printer cables that have only 1 common ground wire

1.4 Specifications

Table 1-2: SG-System II Specifications

Electrical:

Input Voltage	100-240VAC, 50-60Hz.
Input Current	0.7A (Max)
Backup Power Supply	External UPS (not supplied)

Environmental:

Temperature	32 - 122°F (0-50°C)
Humidity	93%RH, Non Condensing

Dimensions

Width	12in. (305mm)
Length	12.25in. (311mm)
Height	1.75in. (45mm)
Weight	7.92lbs (3.58 Kg)

Ethernet Interfaces

Automation Port	1025
Printer Port	1027
Command Port (Console Interface)	1024
Audit Port	1030
TFTP Port	69
Account Port (Default)	3064

Accounts

Number of Accounts	1024 MAX
Number of Supervised Accounts	512 MAX

1.5 Out of Box

Verify that you have received the following:

SG-System II

- ☐ SG-System II Receiver ..... Qty 1
- ☐ SG-System II Console Software CD ..... Qty 1
- ☐ SG-System II Operating Manual ..... Qty 1
- ☐ Rubber Feet ..... Qty 4

SG-System II Rack Mount Kit (Optional)

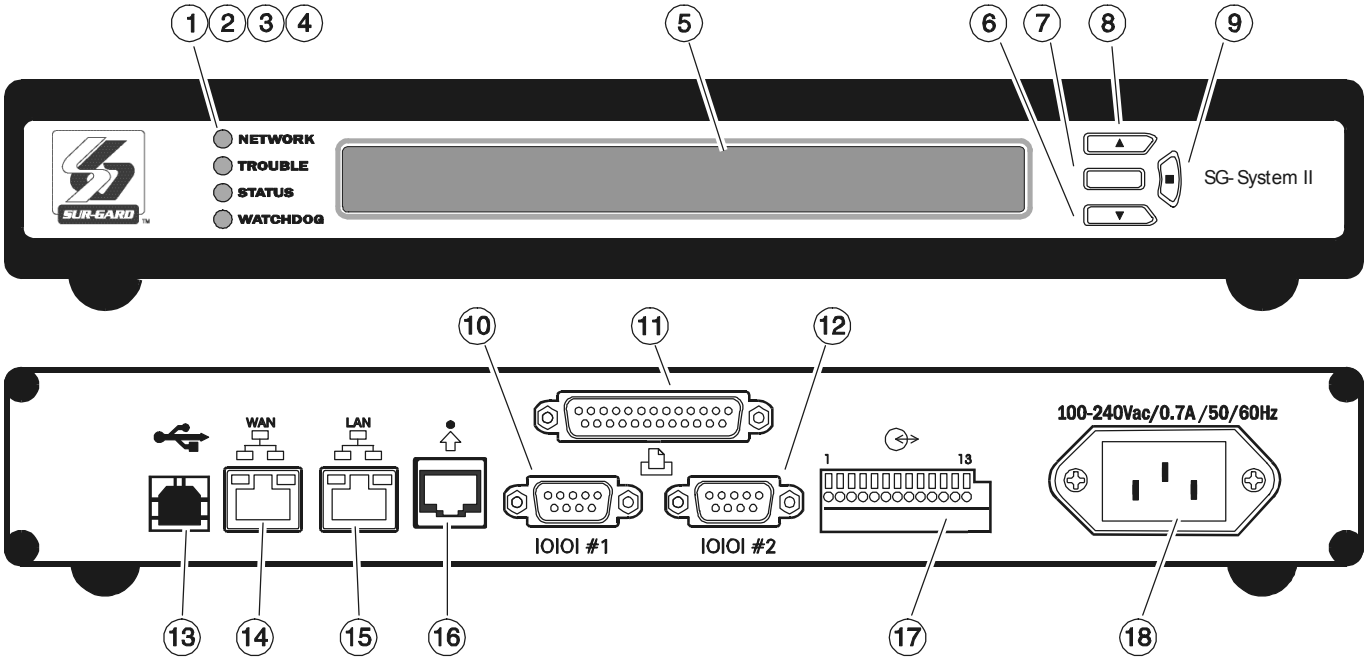
- ☐ Brackets ..... Qty 2
- ☐ Rails (Mounting) ..... Qty 4
- ☐ Screws ..... Qty 8
- ☐ Quick Install Sheet ..... Qty 1

Additional Equipment Required (Not Supplied)

- ☐ IEC Power Line Cord ..... Qty 1
- ☐ CAT-5 Ethernet Cable for WAN Interface Support ..... Qty 1
- ☐ CAT-5 Ethernet Cable for LAN Interface Port or USB cable for Console Communication ..... Qty 1
- ☐ DB9 terminated RS232 Serial Cable ..... Qty 1
- ☐ DB25 terminated Parallel printer Cable ..... Qty 1

Section 2 - Installation

2.1 Controls & Indicators



Item No.	Indicator/ Control/ Connector	State/Pin	Description
1	NETWORK Green LED	**ON** **OFF**	Network Present Network Absent Follows the network interface that receives T-Link signals.
2	STATUS Orange LED	**FLASHING** **OFF**	Number of Flashes indicates Trouble as indicated: **FLASHES .....TROUBLE** 2 ..... NO_TIMESET 4 ..... BUFFER_FULL 5 ..... FLASH_BADCHECKSUM Normal Operation
3	TROUBLE Yellow LED	**ON** **OFF**	Indicates CPM Trouble No CPM Trouble
4	WATCHDOG Blue LED	**FLASHING** **STEADY**	Normal Operation SG-System II Line Card Fault
5	LCD Display		40x2 Character LCD display Top Line Displays current Operating Mode Bottom Line displays troubles (or messages in manual mode).
6	DOWN Interface Button		Scrolls down through menu options
7	ACK Interface Button/LED	**FLASHING** **OFF**	Indicates unit is in Manual Mode and waiting for acknowledgement. There are No Alarm Events Alarm Events requiring acknowledgement The ACK Button is used to acknowledge an alarm event in manual mode and acts as [Enter] in Programming Mode
8	UP Interface Button		Scrolls up through menu options

9	ENTER Interface Button		Selects a menu option
10	AUTOMATION Port (COM1)	DB9	Sends Automation Messages to Central station Computer (e.g., Heartbeat if No activity) ***NOTE: Maximum Cable length is 1.8m (6ft). Longer cables may impair performance. Use at own risk.***
11	PARALLEL PRINTER Port	DB25 (Female)	Sends events to local printer (DB25 Female) ***NOTE: Maximum Cable length is 1.8m (6ft). Longer cables may impair performance. Use at own risk.***
12	SERIAL PRINTER Port (COM2)	DB9	RS232 Serial Printer Port. Sends events to local printer ***NOTE: Maximum Cable length is 1.8m (6ft). Longer cables may impair performance. Use at own risk.***
13	USB Port	USB Type B	USB Type B ***NOTE: Maximum Cable length is 1.8m (6ft). Longer cables may impair performance. Use at own risk.***
14	WAN Interface Port	CAT-5	T-Link v1.2 or higher via CAT5 Ethernet Cable (1.8m/6ft) ***NOTE: Longer cables may impair performance. Use at own risk***
15	LAN Interface Port	CAT-5	This interface is used for Console, Automation and Local (same subnet) T-Link connections. Connects to LAN via CAT5 Ehernet Cable (1.8m/6ft) ***NOTE: Longer cables may impair performance. Use at own risk***
16	DEBUG RJ-45	RJ-45	***NOTE: Maximum Cable length is 1.8m (6ft). Longer cables may impair performance. Use at own risk.***
17	I/O Port (Use AWG 18-22 wire)	1 Input 2 Com 3 Input 4 Input 5 Com 6 Input 7 Ouput 8 COM 9 Output 10 Output 11 COM 12 Output 13 Earth	UPS AC Failure (toggles from ground to open on failure) COMMON (ground) UPS DC Failure, battery of the UPS failed (toggles from ground to open on failure) Future Use COMMON (ground) Future Use Follow Buzzer: Toggles to ground following the Buzzer.* COMMON (ground) Toggles to ground following the Status LED* Future Use COMMON (ground) Future Use EARTH GROUND ***NOTE: Maximum Cable length is 1.8m (6ft). Longer cables may impair performance. Use at own risk.***
18	Mains Supply Connector		120/240VAC /0.7A/ 50-60Hz Connection to Interruptible Power Supply (UPS recommended) with minimum 24 Hr standby capability required. Refer to ***Section 2.2. Setup & Testing***

For ULC Installations, the equipment shall be rack mounted and energized by a permanently wired supply in accordance with C22.1, Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations, section 32.

NOTE: The trouble messages are being indicated by separate LED's and on the alphanumeric LCD. If a trouble condition is not indicated on the corresponding LED but it is displayed on the LCD please have the unit serviced in order to replace the failing indicator.

2.2 Set Up & Testing

DSC recommends testing the receiver before actual installation. Becoming familiar with the connections and setup of the unit on the workbench will make final installation simpler.

The following items are required:

- IEC Power Supply cord
- CAT5 Ethernet Cable
- One or more T-Link modules
- Hub/router or Network

NOTE: When a Hub or Router/Gateway is used with the SG-System II, 24 Hr Standby Power is required for these devices (i.e., UL Listed UPS, Battery Backup, or engine driven generator).

1. Unpack the SG-System II components.

   NOTE: Carefully unpack the receiver and inspect for shipping damage. If there is any apparent damage, notify the carrier immediately.

2. Install the rack-mount brackets or the rubber feet in the indents as required.
3. Connect a CAT5 Cable (not supplied) .
4. Connect the main power using a standard computer IEC cable (not supplied).

Figure 2-1, Wiring Diagram

WARNING:

To reduce the risk of electrical shock, the SG-System II is equipped with a grounding type power supply IEC receptacle.

Connect SG-System II using an appropriate IEC cable to a grounded receptacle.

Connect SG-System II to UPS dry contact connections only.

Do NOT connect to a receptacle contrrolled by a switch.

NOTES:

For UL Installations

Mains Supply: 120VAC/60Hz

UPS Output Rating: 120VAC/60Hz, 2.5A. Use UL listed UPS (uninterrupted power supply) for protective-signalling systems and listed burglar alarm power supply as applicable.

For CE Installations

Mains Supply: 240VAC/50Hz

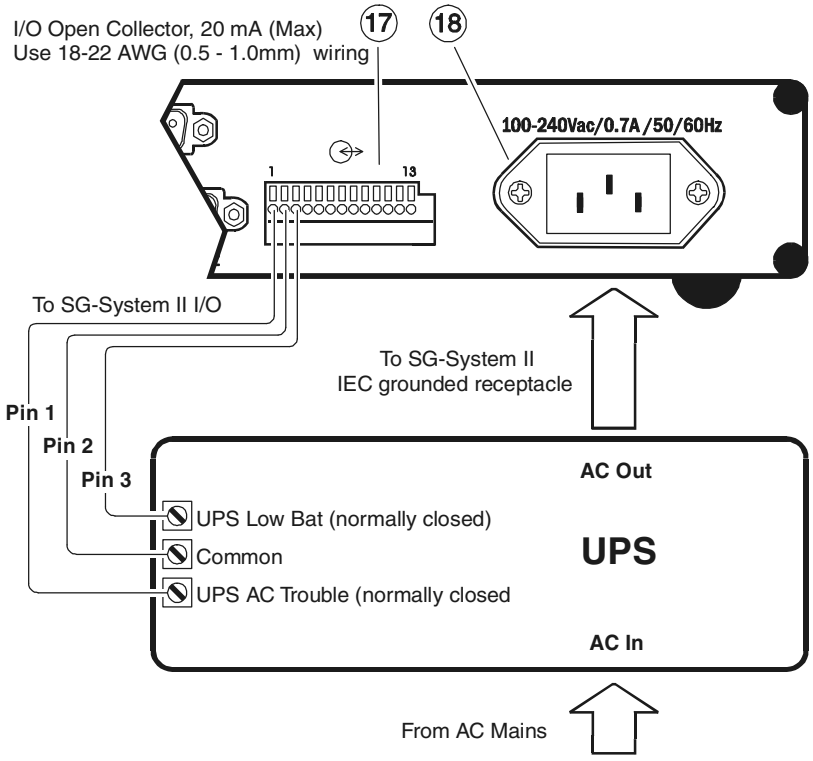
UPS Output Rating (non UL): 240VAC 50Hz

NOTES:

Install External Devices connected to item (10)-(17) in the same room as the SG-System II.

Maintain 1/4" (6.5mm) separation between power limited and non-power limited circuits. Use power limited, supervised circuits only/

I/O Terminal is Open collector 20mA switched to ground. Wire with 18-22 AWG



5. The LCD will power up and display internal troubles (printer, computer, telephone line fault).

   NOTE: Internal diagnostics may require more than one minute during the power up sequence.

6. Send a signal from a control panel to the receiver. The signal will be displayed on the LCD. Press the [ACK] button to silence the buzzer and clear the signal from the LCD.

Section 3 - Operation/Operating Modes

There are two main categories of operating modes, Native and Program Modes.

3.1 Active Mode

Active Mode is the normal operating mode. The SG-System II is in Active Mode when any of the Automation Ports are present and responding to signals.

3.2 Manual Mode

This mode normally occurs when automation is lost or has been programmed out (all automation ports disabled). Changing from ACTIVE mode to MANUAL mode is automatic.

In manual mode, the SG-System II can receive signals (unless the buffer is full) and attempts to output the first signal in the buffer if there are any and if the automation is programmed on some ports. The unit displays the message on the LCD screen, activates the buzzer and the acknowledge LED. To stop the buzzer and the acknowledge LED, the ACK button must be pressed and released for every signal not acknowledged in the buffer. The messages are only the printer message. For messages greater than 40 characters, the first 40 characters are displayed. Press the Enter button to toggle between the rest of the message. The alarm printer and automation buffers reside in the SG-System II.

3.3 Program Modes

Press the ENTER button in one of the native modes to access the Password Screen.

NOTE: All alarms must be acknowledged before entering programming from Manual Mode.

- Enter your 4-hex digit password on the bottom line. The default password is CAFE.
- Use the UP/DOWN buttons to cycle through the digits.
- Press ENTER to select the desired entry and move to the next digit.
- Continue until the 4 locations are filled.

If the password is correct, the SG-System II will enter PROGRAM mode and generate the corresponding printer and automation signals. If the password is incorrect the unit will produce an error tone on the buzzer and return to native mode.

User Interface

The LCD and user button interface allow programming of the unit and scrolling through the printer buffer or the trouble list. The top line of the LCD displays the mode the device is in. The bottom line displays the information. An example LCD screen is shown below..

To Scroll Up Press the UP Button

The Program Modes

Top Level Menu	System Functions Menu
View or Change Options	System Information
View Printer	Date & Time
System Functions	Default SG-System II Options
Exit Programming	Reset SG-System II
	Back Menu

3.4 Top Level Menu

View Option Mode

In View Option mode, the buttons cycle through the configurable options, starting with Option[00]. Option[00] is not a real option, and it can be used to exit View Option Mode. The reserved options are skipped and they are not displayed. This mode displays the option number, the option label, and the current value on the bottom line of the LCD while keeping the time and date on the top line and the description of the mode

(List Options)

Press UP and DOWN buttons simultaneously to return to the Top Level Menu.

View Printer Buffer Mode

The bottom lines of the LCD cleared when this mode is entered. The oldest message in the buffer including those that have been acknowledged will be displayed first. In this mode the UP and DOWN button cycle through older (UP) or newer (DOWN) messages. For message that is longer than 40 characters, the first 40 characters of the message are displayed. The ENTER button can be used to toggle between the rest of the message.

Press UP and DOWN buttons simultaneously to return to the Top Level Menu.

System Information

When this is selected the user will be able to scroll using the UP or DOWN buttons the version with date, the LAN Ethernet IP with subnet mask, the WAN Ethernet IP with subnet mask, and the Gateway IP. The information is displayed in the bottom line.

Press UP and DOWN buttons simultaneously to return to the Top Level Menu.

Date & Time

When this is selected, the user can cycle through the digits using the UP and DOWN buttons. The ENTER button is used to go to the next digit. Once the last digit is selected, pressing the ENTER key again and the interface will prompt the user if "Ok?" to save the date and time. Pressing ENTER again will save the date and time. Again, at any point before the date and time are saved, pressing both UP and DOWN buttons together will abandon the inputs and exit back to the System Functions Menu.

Default SG-System II Options

When this is selected, the interface will prompt the user to confirm defaulting the options. Selecting YES using the ENTER button will default the all options. The UP and DOWN buttons can be used to change the answer.

Reset SG-System II

When this is selected, the interface will prompt the user to confirm resetting the box. Selecting YES using the ENTER button will reset the box. The UP and DOWN buttons can be used to change the answer.

View Trouble Mode

To enter the mode the unit must be in any mode other then printer view mode or programming mode and has no events to be acknowledged in manual mode the DOWN and UP buttons are pressed together. Once in the mode the DOWN or UP button will start cycling through the trouble list. Should there be no trouble the LCD will flash NO TROUBLE for a few seconds and return to the previous mode of operation. Once in the trouble view mode using the UP arrow will cycle through the troubles in the opposite order as the DOWN button. When reaching the end of the trouble it will cycle back to the start of the list.

Trouble List

The following is a list of troubles the CPM section will monitor. All troubles can be disabled in the programming section. Enabled is the default condition.

- Parallel Printer
- Serial Printer
- TCP Printer
- USB Printer
- Serial Automation
- TCP Automation
- USB Automation
- UPS Battery
- UPS AC

Section 4 - Programming Options

Programming Option Index

Option [01]: LAN Address - Default [10.0.7.100]

Enter the IP Address of the SG-System II. Ensure that the IP address programmed is unique to the CPM.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [02]: LAN Subnet Mask Address - Default [255.255.0.0]

Enter the Subnet Mask Address of the CPM

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [03] Reserved

Option [04]: Auto Update Time & Date - Default [0]

This option enables the automation to update the SG-System II's time via the TCP/IP port. If the SG-System II fails to get the time & date within a 24 hour period (started after the last update is received), it will generate a status message to the printer and automation, following the internal trouble protocol. The Trouble status on the SG-System II will not be affected.

Printer message: "Time&Date Update Fail"
Automation message:0RRLLL[#0000¦NRU0000]

Options [05]: Contrast Adjust - Default [45]

Allows the contrast of the message display screen to be adjusted. Press the up or down button to adjust. The contrast can also be adjusted from the main screen by holding the UP and ENTER buttons simultaneously to increase the level, or by holding the ENTER and DOWN buttons simultaneously to decrease the level.

Options [06]: Password Menu

Allows the SG-SYSTEM II users and passwords to be erased or changed. Sixteen users with 4-digit passwords are available for use on the SG-SYSTEM II. User 0 is the Master user, and users 1 through F may be assigned to individual operators. The Master user will provide access to all menus, while the operators will not have access to the SG-SYSTEM II settings. To erase a user, program the password for that user to 'FFFF'.

NOTE: User "0" cannot be erased.

Option [07]: COM1 Baud Rate - Default [9600]

Determines the baud rate that the SG-System II communicates to the automation software via serial port 1.
Values are: 1200, 2400, 9600, 4800,19200, 38400, 57600

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [08]: COM1 Data Bits - Default [8]

Determines the number of data bits used to communicate to the automation software via serial port 1.
Enter a number from 7 through 8 to indicate 7 or 8 data bits.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [09]: Parity - Default [0]

Determines the parity of the serial port 1.

[0] — No parity (default)

[1] — Odd parity

[2] — Even parity

NOTE: The number of stop bits can not be changed and will always be 2.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [0A]: COM2 Printer Format - Default [0]

This option affects how the COM2 Serial Port is supervised and how the data is formatted.

[0] Disables Option

[1] Outputs printer messages to serial printer via COM2

[2] Outputs printer messages to a computer via COM2

[3] Future Use

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [0B]: COM2 Baud Rate - Default [9600]

Determines the baud rate that the SG-System II communicates to the serial printer via serial port 2. Values are:1200, 2400, 4800, 9600,19200, 38400.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [0C]: COM2 Data Bits - Default [8]

Determines the number of data bits used to communicate to the automation software via serial port 2. Enter a number from 7 or 8 to indicate 7 or 8 data bits.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [0D]: Parity - Default [0]

Determines the parity of the serial port 2.

[0] — No parity (default)

[1] — Odd parity

[2] — Even parity

NOTE: The number of stop bits can not be changed and will always be 2.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [0E]: Future Use

Option [0F]: B32 Headers - Default [00]

Compatible with MAS B32 Automation Software through TCP/IP.

[0] — Disable

[1] — Enable

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [10] - [11]: Reserved

Option [12]: Heartbeat Timer - Default [30]

Determines the time interval in seconds between heartbeat transmissions sent to COM1 and TCP/IP port 1025. Heartbeat transmissions ensures that communications through COM1 and TCP/IP are functioning normally.

Enter a decimal number from "01" - "99" to select time interval in seconds.

Option [13]: Mute Buzzer - Default [OFF] (Disabled)

When the SG-System II receives an alarm and is unable to forward the alarm message to COM1 or TCP/IP a tone will sound. The tone may be silenced with this option. If enabled, the buzzer will NOT sound when an alarm is received and cannot be forwarded to COM1.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [14]: Reserved

Option [15]: Printer Test - Default [ON]

When this option is enabled, a test signal is sent to the printer at 05:00 and 17:00 hrs.

[0] — OFF

[1] — ON

Printer message:
26 Nov 2003 16:41:25 - 26 Nov 2003-16:41:25-00/00-SG -01-000-0000--Printer Test Message

Option [16] - [1F]: Reserved

Option [20]: Mask UPS AC 1 - Default [ON]

UPS AC Shelf 1 trouble mask. If enabled, UPS AC Shelf 1 trouble conditions are not reported.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [21]: Mask UPS BAT 1 - Default [ON]

UPS Battery Shelf 1 trouble mask. If enabled, UPS Battery Shelf 1 trouble conditions are not reported.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [22] - [23]: Reserved

Option [24]: Mask SG TCP 1 – Default [OFF]

SG TCP Shelf 1 trouble mask. If enabled, SG TCP shelf 1 trouble conditions are not reported.

Option [25]: Mask SG Serial 1 – Default [Off]

SG Serial Automation Shelf 1 trouble mask. If enabled SG Serial automation shelf 1 trouble conditions are not reported.

Options [26] - [27]: Reserved

Option [28]: Mask TCP 1 Printer - Default [Off]

SG TCP Printer Shelf 1 trouble mask. If set, SG TCP Printer shelf 1 trouble conditions are not reported.

Option [29]: Mask Parallel 1 Printer - Default [Off]

SG Parallel Printer shelf 1 trouble mask. If set, SG Parallel Printer shelf 1 trouble conditions are not reported.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [2A]: Mask Serial 1 Printer - Default [Off]

SG Serial printer shelf 1 trouble mask. If set, SG Serial Printer Shelf 1 trouble conditions are not reported.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Options [2B] - [2E]: Reserved

Option [2F]: Automation Mode - Default [1] (Fall Back)

The TCP/IP connection is the primary output of the SG-System II for automation computer alarms. It is estimated that sockets may appear and disappear regularly as processes are terminated and reconstituted. After 5 seconds of socket loss, a socket loss is declared and automation output is shifted to the next connection level, which is the serial automation output connection.

[0] First configuration: LOOP

If both outputs are present, the CPM will send to the TCP/IP until it fails, proceed to the serial until it fails, proceed back to the TCP/IP until it fails ... and so on. See Automation out flow diagram 1.

[2] Second configuration: FALL BACK

If both outputs are present, the CPM will send to the TCP/IP until it fails, proceed to the serial until it fails, and will keep trying on the serial continuously, or until the reset fallback command is generated from the console, in which case it would go back to try the TCP/IP connection. See Automation out flow diagram.

[3] Third Configuration: ALL (2)

The SG-System II will always send to all connected outputs. If at least one output replies with a ACK, then the alarm is considered as transmitted regardless if the other output acknowledged it or not. This setting is NOT recommended. See Automation out flow diagram.

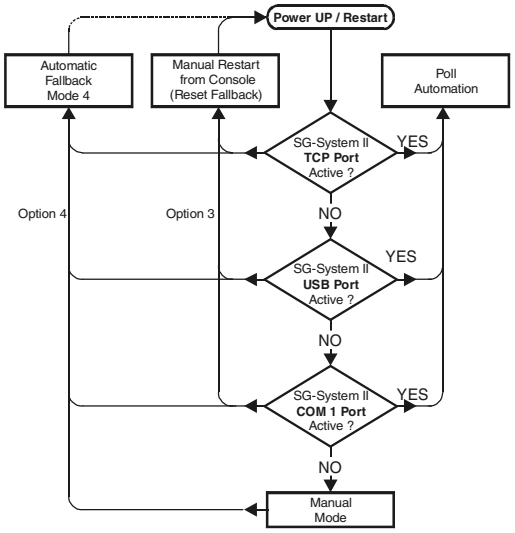
[4] Fourth Configuration: Reserved

[5] Fifth Configuration: Automatic SG-Fall Back (4)

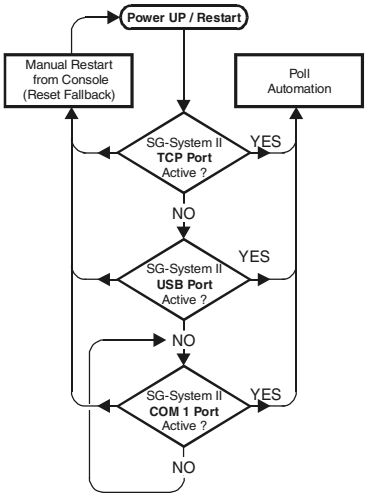
This mode is similar to Fall Back except that when the TCP/IP connection is restored the SG-System II will return to the TCP/IP port to send events. This eliminates the need for the Reset SG Fallback from the SG-System II Console.

NOTE: The SG-System II must be restarted for these changes to take effect.

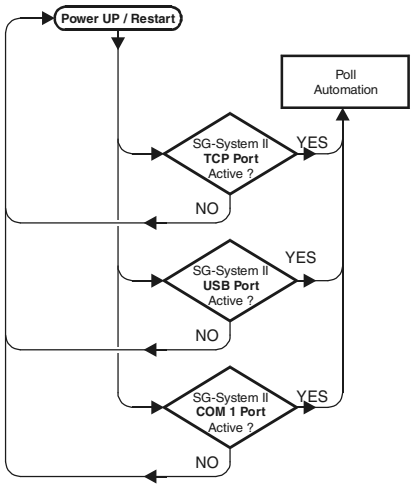
Automation LOOP mode flow diagram



Automation FALL BACK mode flow diagram



Automation ALL mode flow diagram



Option [30]: Printer Mode - Default [2]

The printer outputs can be configured in a similar approach as the automation outputs except that the FALLBACK [1] option is not available.

Sequence is TCP, Parallel, Serial.

NOTE: DSC does NOT recommend changing the default setting.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [31]: ACK Wait - Default [40]

Determines the acknowledge wait time in tenths of a second for automation outputs. Determines the interval before the SG-System II will try again if no response is received.

Enter a decimal number from “40” to “99” for 4.0 seconds to 9.9 seconds.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [32]: Date Format – Default [0]

Selects the DATE format for printer output.

[0] International format **DD/MM/YY**.

[1] US format **MM/DD/YY**.

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [33]: Reserved

Option [34]: Time Correct – Default [000]

The SG-System II will synchronize its time with the SG-System II console application PC. However in some situations it may be desirable to automatically correct the time of the SG-System II. The SG-System II will update its time once an hour.

Valid values are -590 to +590; value represents time in tenths of a second (i.e. 243 means 24.3 seconds).

Options [35] - [37]: Reserved

The option in the DRL3 must be set to the same speed in order for communication to work. All units must have the same speed. Once changed the unit must be reset for the option to take affect.

Option [38]: Mask USB Automation – Default [ON]

If enabled, USB Automation trouble conditions are not reported.

Option [39]: Mask USB Printer – Default [ON]

If enabled, USB Printer trouble conditions are not reported.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [3A]: Programmable I/O

Future Use

Option [3B]: Last Message ON – Default [OFF]

If enabled, the most recent printer message is displayed on the LCD bottom line until a new message replaces it.

Option [3C]: LCD Backlight Color - Default CYAN

Specific LCD backlight colors, or cycling through all colors can be selected.

Option [3D]: Keymat Backlight Color - Default CYAN

Specific Keymat backlight colors, or cycling through all colors can be selected.

Option [3E]: Reserved

Option [3F]: Debug

Refer to Technical Support before activating this option.

Option [40]: Reserved

Options [41] - [44]: WAN IP Address

This IP address identifies the SG-System II on the IP network for reception of alarms. Each node on the IP network must be assigned a unique IP address, which is made up of a network identifier and a host identifier. The SG-System II uses Static IPs, DHCP is not supported. These options specify 4 bytes of the receiver IP address, from the high byte to low byte with highest (byte 3) in section [01] and lowest (byte 0) in section [04] in hexadecimal.

Defaults: 41: C0, 42: A8, 43: 00, 44: 01 (Represents: 192.168.000.001)

NOTE: The SG-System II must be restarted for these changes to take effect.

Options [45] - [48]: WAN Subnet Mask Address

A mask used to determine what subnet an IP address belongs to. The subnet is a portion of a network that shares a common address component. On TCP/IP networks, subnets are defined as all devices whose IP addresses have the same prefix. Dividing a network into subnets is useful for both security and performance reasons. These options specify 4 bytes of receiver subnet mask address, from the high byte to low byte with highest (byte 3) in section [45] and lowest (byte 0) in section [48] in hexadecimal.

Defaults: 45: FF, 46: FF, 47: 00, 48: 00 (Represents: 255.255.000.000)

NOTE: The SG-System II must be restarted for these changes to take effect.

Options [49] - [4C]: WAN Gateway

This is the Gateway address that the SG-System II must communicate to reach the T-LINK. This address is applied to all T-LINK modules connected to the SG-System II.

These options specify the 4 bytes of the receiver gateway, from high byte to low byte with the highest (byte 3) in section [49] and the lowest (byte 0) in section [4C].

Defaults: 49: 00, 4A: 00, 4B: 00, 4C: 00 (Represents: 000.000.000.000)

NOTE: The SG-System II must be restarted for these changes to take effect.

Options [4D] - [4E]: WAN Connection Port Number

These options set the 2 bytes of T-Link connection port number with high byte in section [4D] and low byte in section [4E].

If this option is changed, T-Link modules connected to the SG-System II must be programmed with the new port number. T-Link modules connected to the SG-System II will send their signals to this port.

Defaults: 4D: 0B, 4E: F5 (Represents: 3061)

NOTE: The SG-System II must be restarted for these changes to take effect.

Option [4F]: Receiver Number – Default: [01]

The receiver number is used for sending signals to the central station software. Refer to the manuals for any central station automation software being used to determine if there are any special requirements for this number. Also, ensure that there are no duplicate receiver numbers used.

Option [50]: Line Card Number – Default: [01]

The Line Card Number provides a virtual identification code for each SG-System II. Hexadecimal numbers “01” to “FF” can be programmed in Option [01] to identify the particular SG-System II.

Option [51]: Line Card Number Length – Default: [0A]

This option is used to determine how many digits from the line card number / DNIS length will be sent to the output. You also have the option of displaying the number in hex or decimal. Program this option with one of the following

[01] - Sends only one hex digit to the printer or computer output (if you have a 2-digit line card number only the last digit will be sent to the output).

[02] - Sends 2 hex digit line card number to the output.

[03] - Send 3 hex digit line card number to the output (leading zeros will be inserted prior to the line card number).

[0A] - Send 3-digit line card number in decimal; send 2-digit receiver number in decimal

[0D] - Send 3-digit line card number in decimal

Option [52]: Reserved

Options [53] - [54]: Transmitter Absent Debounce Time - Default [078](120 secs)

The time, in seconds, that a supervised transmitter must be absent before a transmitter failure condition is reported.

Valid entries are 30-255 seconds. Enter Value in hex.

NOTE: T-LINK Absent Time should not be less than 90 seconds. For ULC Installations Security Level 4, this option shall be programmed as 5A (90s), 4B (75s) for Security Level 5. For UL Installations, this option shall be programmed as C8 (200 secs).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Options [55] - [56]: Transmitter Restoral Time - Default [003C](60 secs)

This option determines the required time a transmitter must be present before it is registered in the Account Table and the transmitter restoral message is sent.

NOTE: Transmitter Restore Time must be 30 seconds minimum.

Option [57]: Network Present Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Network Absent condition on the SG-DRL3-IP receiver.If enabled, Network Present Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [58]: Network Absent Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Network Absent condition on the SG-DRL3-IP receiver.If enabled, Network Absent Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [59]: Transmitter Restoral Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Transmitter restoral condition on the SG-System II receiver. If enabled, Transmitter Restoral Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [5A]: Transmitter Failure Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Transmitter failure/absent condition on the SG-System II receiver. If enabled, Transmitter Failure Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [5B]: Transmitter Swap Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the T-LINK and GS-3055I swap condition on the SG-System II receiver. If enabled, Transmitter Swap Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [5C]: Transmitter Unencrypted Trouble Mask - Default [01]

This programmable mask enables or disables the reporting of a T-LINK sending an unencrypted event when the SG-System II receiver is expecting an encrypted event condition. If enabled, Transmitter Unencrypted Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [5D]: Invalid Report Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting the invalid report. If enabled, Invalid Report Troubles are not reported (masked).

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [5E]: Unknown Account Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of an unknown account report condition when the SG-System II receives data from an invalid account (not in the account table). If enabled,Unknown Account Troubles are not reported (masked).

Option [5F]: Accounts Exceeded Trouble Mask - Default [OFF]

This programmable mask enables or disables reporting if a new account tries to connect to the SG-System II when the account table limit has been exceeded. If enabled, Accounts Exceeded Troubles are not reported (masked).

Option [60]: Transmitter Deleted Trouble Mask - Default [OFF]

This programmable mask enables or disables reporting when a T-Link account is deleted from the table. If enabled, Transmitted Deleted Troubles are not reported (masked)

Option [61]: Option Change Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of an option changed on the SG-System II. If enabled, Option Change Troubles are not reported (masked)

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [63]: Console Lead-out Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Console Lead out. This occurs when the console disconnects successfully to the SG-DRL3-IP. If enabled, Console Lead-out Troubles are not reported (masked).

NOTE: For UL and ULC Installations, Options [17], [18], [19], [1A], [1B] and [1C] shall be programmed as [00].

Option [64]: Console Session Denied Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting if a session is denied. This occurs when a console connection is already present or the credentials are not correct. If enabled, Console Session Denied Troubles are not reported (masked).

Option [65]: Printer Buffer Full Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Printer Buffer Full. If enabled, Printer Buffer Full Troubles are not reported (masked).

Option [66]: Computer Buffer Full Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of the Computer Buffer Full. If enabled, Computer Buffer Full Troubles are not reported (masked).

Option [67]: Internal Communications Error (Printer) Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of an internal communication error of a printer message. If enabled, Internal Communication Errors (Printer) Troubles are not reported (masked)

Option [68]: Internal Communications Error (Computer) Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of an internal communication error of a computer message. If enabled, Internal Communication Errors (Computer) Troubles are not reported (masked).

Option [69]: Remote Reset Trouble Mask - Default [OFF]

This programmable mask enables or disables the reporting of a remote reset condition. If enabled, Remote Reset Troubles are not reported (masked).

Option [6A]: Reserved

Option [6B]: Busy Out - Default [00]

The SG-System II will stop acknowledging transmitter events under specific trouble conditions if Option **[6B]** is programmed with the following:

[00] - No time Set, Code corruption checksum error, Internal buffer is in full condition

[01] - SG-System II is downloading

[04] - No time Set. Code corruption checksum error, SG-System II is downloading, Internal buffer is full, Internal communication error.

[05] - No time Set. Internal Communication is absent, Internal buffer is full, Internal communication error, SG-System II is downloading.

NOTE: If [01] is selected, the line card will overwrite the oldest alarm with a new alarm when the buffer is full.

IMPORTANT: Refer to Table 1-2, UL864 Programming Requirements, if changing the default setting.

Option [6C]: Internal Messages RS-232 - Default [01]

RS-232 Format

S, 0 (zero) = Protocol number
RR = Receiver number
LLL = Line number
AAAA = Account code, always 0000

[00] - Output for all internal signals is **SRRL** protocol

SRRLLL[#AAAA|Nxxyy]

[01] - Output for all internal signals is 0RRL protocol

0RRLLL[#AAAA|Nxxyy]

[04] - Output signals in automation protocol SRRL with leading space in the zone (DVACS only)

[05] - Output signals in automation protocol 0RRL with leading space in the zone (DVACS only)

Options [6D] - [79]: For Future Use

Options [7A] - [7B] Console Port - Default 7A[0B], 7B[F8]

These options set the 2-byte Console **Connection Port Number** with high byte in section [3A] and low byte in section [3B]. If this option is changed, the console connected to the SG-System II must be programmed with the new port number

NOTE: The SG-System II must be restarted for these changes to take effect.

Options [7C] - [7F] Reserved

Option [80]: Console Password - Default [CAFE]

Options [84]: DNIS Replacement of RRLLL - Default [00]

When set to 0x01 will replace RRLLL with the 5 digit DNIS received from the GS3055-I transmitter.

Option [85]: For Future Use

Option [86] Account Digit Stripping- Default [00]

This option truncates the 10-digit T-Link Account Code and the Panel Account code to the number of digits entered here. If the number of digits in the account number exceeds the entered value, the excess digits are stripped from the left most side of the account number. Entering [00] does not change the Account Code or Panel Code:

For example; If option [86] is set to 07 the following will occur:

T-Link	Output	Alarm Panel	Output
1234567890 =	4567890	567890 =	567890
0000001234 =	0001234	7890 =	7890
0012345678 =	2345678	00567890 =	0567890

[00] Disabled

[00] - [09] Number of digits stripped

Option [87] SIM Number Output- Default [00]

This options only available when using the GS3055-I. When enabled the receiver will output the received SIM number to the printer and automation. The message will include the account number (up to 10 digits following Option [86]) and the SIM number (21 digits). Please verify with the automation software provider to determine if they support the (s) protocol via the Sur-Gard output format before enabling this feature.

The Automation output is as follows:

sRRLLLAAAAAAAAAASSSSSSSSSSSSSSSSSSS
s = Protocol identifier
RRLLL= Receiver and line number
A = Account number
S = SIM number

Appendix A - SG-System II Events & Messages

Description/Event	Automation Message	Printer Message	LCD Message
TCP/IP Printer Failure	VZ0100	TCP/IP 1 Printer Failed	TCP 1 PRINTER FAIL
TCP/IP Printer Restoral	VY0100	TCP/IP 1 Printer Restored	
Parallel Printer Failure	VZ0101	Parallel 1 Printer Failed	PAR 1 PRINTER FAIL
Parallel Printer Restoral	VY0101	Parallel 1 Printer Restored	
SG-TCP/IP Shelf 1 Failure	NT0100	SG-TCP/IP 1 Failed	SG-TCP/IP 1 FAIL
SG-TCP/IP Shelf 1 Restoral	NR0100	SG-TCP/IP 1 Restored	
Serial Communication Failure	YC0101	SG-SERIAL 1 Failed	SG-SERIAL 1 FAIL
Serial Communication Restoral	YK0101	SG-SERIAL 1 Restored	
Switch To Active Mode	SC0003	Switching To Normal Mode	ACTIVE
Switch To Manual Mode	SC0000	Switching To Manual Mode	MANUAL
Switch To Standby Mode	N/A	Switching To Standby Mode	STANDBY
Line Card Absent	YEssOO	Line Card Absent	
Line Card Restored	YDssOO	Line Card Restored	
Internal Comm Error (Computer)	YOssOO	Computer: Inter-Comm. Error	
Internal Comm Error (Printer)	YOssOO	Printer: Inter-Comm. Error	
Internal Comm Error (Console)	YOssOO	Console: Inter-Comm. Error	
Operator Activity Mode	LB00##	User:## Entered Programming	
SG-System II Power Up	RR0001	Primary CPM Power Up	
SG-System II Failure	YX0001	Primary CPM Failure	
Reset SG-Fallback sent from Console	YY0000	Reset SG-Fallback Initiated	
Primary CPM Restoral	RR0001	Primary CPM Restored	
AHS Database Full	N/A	CPM AHS Database Full	
UPS AC Fail (PGM In)	AT0102	UPS AC 1 Failed	UPS AC 1 FAIL
UPS AC Restored	AR0102	UPS AC 1 Restored	
UPS Low Battery Restore	YR0102	UPS Battery 1 Restored	
UPS Low Battery	YT0102	UPS Battery 1 Low	UPS BATT 1 LOW
Console Session Denied	RD0001	Primary Console Session Denied	
Line Card Busy	YBss00	LC Programming	
Computer Buffer Full	YBss02	Computer Buffer Full	
Printer Buffer Full	YBss01	Printer Buffer Full	
Checksum Fail	YBss00	Checksum Failed	
Automation Time & Date Failure	RU0000	Time & Date Update Failed	
T-Link Interface Network Present	[#000000|NNR*10.0.0.2*]	000000-NR-Network Restoral	
T-Link Interface Network Absent	[#000000|NNT*10.0.0.2*]	000000-NT-Network Failure	
Transmitter Restoral	[#123456|NYK*10.0.0.1*]	123456-YK-*Transmitter Restoral 10.0.0.1*	
Transmitter Failure	[#123456|NYC*10.0.0.1*]	123456-YC-*Transmitter Failure 10.0.0.1*	
Transmitter Swap	[#123456|NYS*10.0.0.1*]	123456-YS-*Transmitter Swap 10.0.0.1*	
Transmitter Unencrypted	[#123456|NNC*10.0.0.1*]	123456-NC-*Transmitter Unencrypted 10.0.0.1*	
Invalid Report	[#123456|NYN*10.0.0.1*]	123456-YN-*Invalid Report/Possible Compromise Attempt 10.0.0.1*	
Accounts Exceeded	[#123456|NJO*10.0.0.1*]	123456-JO-*Accounts Exceeded 10.0.0.1*	
Transmitter Deleted	[#123456|NJX*10.0.0.1*]	123456-JX-*Transmitter Deleted 10.0.0.1*	
Option Change	[#000000|NLS0101]	000000-LS-Option Change	
Console Lead In via T-Link Interface	[#000000|NRB*10.0.0.3*]	000000-RB-Console Lead In	
Console Lead Out via T-Link Interface	[#000000|NRS*10.0.0.3*]	000000-RS-Console Lead Out	
Console Session Denied via T-Link Interface	[#000000|NRD*10.0.0.3*]	000000-RD-Console Session Denied	
Printer Buffer Full	[#000000|NYB0001]	000000-YB-Printer Buffer Full	
Computer Buffer Full	[#000000|NYB0002]	000000-YB-Computer Buffer Full	
Internal Comm Error (Printer)	[#000000|NRT0001]	000000-RT-Printer: Internal Communication Error	
Internal Comm Error (Computer)	[#000000|NRT0002]	000000-RT-Computer: Internal Communication Error	
Line Card Programming	[#000000|NYB0101]	000000-YB-LC Programming	
LC Remote Reset	[#000000|NRN0101]	000000-RN-Remote Reset	
LC Checksum Fail	[#000000|NYF0101]	000000-YF-Checksum Failed	
Unknown Account	[#123456|NXA*10.0.0.1*]	123456-XA-*Unknown Account 10.0.0.1*	

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