3G3070

3G (HSPA) WIRELESS ALARM COMMUNICATOR

INSTALLATION MANUAL
V3.6

TABLE OF CONTENTS

IMPORTANT

The equipment is fixed, wall-mounted and shall be installed in the position specified in these instructions. The equipment enclosure must be fully assembled and closed, with all the necessary screws/tabs and secured to a wall before operation. Internal wiring must be routed in a manner that prevents:

- Excessive strain on wire and on terminal connections
- Loosening of terminal; connections
- Damage of conductor insulation

WARNING: **Never install this equipment during a lightning storm!**

Instruct the end-user to:

- Not attempt to service this product. Opening or removing covers may expose the user to dangerous voltages or other risks. Any servicing shall be referred to trained service persons only.
- Use authorized accessories only with this equipment.

Do not dispose of the battery in fire or water. Disposing of the battery in a fire will cause rupture and explosion.

Do not dispose of the waste battery as unsorted municipal waste. Consult your local regulations and /or laws regarding recycling with regard to this lithium battery pack. Doing so will help protect the environment. Some of the materials that are found within the battery could become toxic if not disposed of properly and may affect the environment.

Introduction

The 3G3070 is a wireless communicator that sends alarm system information to an SurGard System I, II, III, IV or 5 receiver through a 3G (HSPA) or 2G (EDGE/GPRS) wireless network.

NOTE: The 3G3070 is designed to work with the Contact ID communication format as described in SIA DC-05 Standard. Before completing the field installation of the alarm monitoring system please ensure communication with the supervising central station is successful by sending several events and getting confirmation that they have been received.

Features

- Compatible with 4-digit or 10-digit Contact ID communication format as described in SIA DC-05 Standard. Example of suitable compatible alarm panels: DSC Models PC1864, PC1832, PC1616, PC4020.
- Simulates landline
- Switches automatically to the 3G (HSPA) or 2G (EDGE/GPRS) network in the event of landline trouble (e.g., line down)
- Wireless Signal Indicator
- Four programmable outputs
- Contains one 12V - 1.2 Ah battery
- Case Tamper Output
- Landline overvoltage protection
- Tri-band UMTS/HSPA; Quad-Band GSM/EDGE Radio
- Four programmable inputs
- 3G (HSPA)/2G (EDGE/GPRS) communication with Sur-Gard System I / II / III / IV / 5
- Panel transmission monitoring for up to four phone numbers

Technical Specifications

The input voltage to the 3G3070 can be drawn from the control panel or provided by an external power supply rated for the application (external power-limited power source).

NOTE: The power supply must be Class 2, Power Limited.

Ratings

Power Supply Ratings - Input Voltage (for long-term operation)

JP3-OFF with internal battery: . . . . 13.8V$_{DC}$ required
JP3-ON without internal battery: . . . . 13.8V$_{DC}$ recommended

NOTE: When the input voltage drops below 13.5V$_{DC}$, the internal battery supplied with the 3G3070 will not be charged. In order to maintain a charged level for the internal battery, the power supply must have a minimum voltage of 13.5V$_{DC}$ to ensure a sufficient battery charge in all conditions of use.

Current Consumption

JP3-OFF with internal battery: 120mA*
JP3-ON without internal battery: 500mA*

* Plus any current drawn from the 3G3070 AUX+ terminal

Working Voltage Range:. . . . . 9-14V$_{DC}$
Battery: . . . . sealed, rechargeable type, rated 12V/1.2Ah or 12V/7Ah (for 24hr standby time)
Battery charging voltage:. . . . . 13.5V$_{DC}$
Battery charging current:. 50mA

NOTE: Battery must be replaced every 3-5 years.

Operating frequency: 850/1900MHz
Antenna gain: 2.0dBi

Environmental Specifications

Operating temperature: . . . . 0°C-49°C (32°F-120°F)
Humidity: . . . . .93%RH Maximum (non-condensing)

Mechanical Specifications

Dimensions (metal enclosure, painted):. . . . . 138mm x 224mm x 55mm / 5.4" x 8.8" x 2.2"
Weight (without battery): . . . . 900g / 3.2oz
Internal Event Buffer (communications): . . . . 256 Events (not viewable)

Simulated Telco Loop specifications (TIP/RING)

On-Hook Voltage: . . . . 35V$_{DC}$
Loop Current: 25mA
Loop Resistance: . . . . 600 Ohms

Figure 1 - Parts
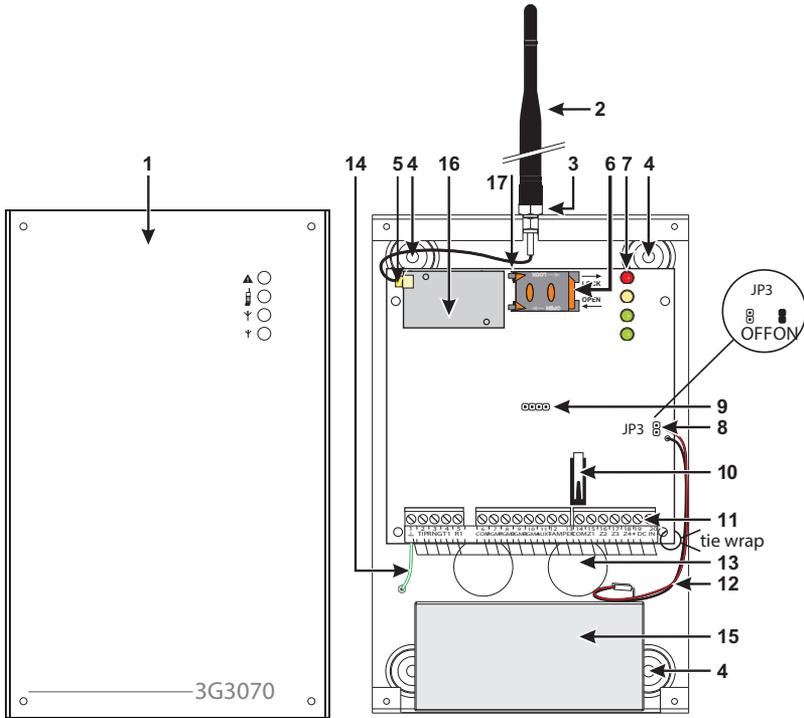
All circuits are classified as Power Limited/Class II Power Limited except for the battery leads which are not power limited. Do not route any wiring over circuit boards. Maintain at least 1" (25.4mm) separation. A minimum 1/4" (6.4mm) of separation must be maintained at all points between Power Limited wiring and all other non-Power Limited wiring. Route wires as indicated above.

Table 1: Parts

	Parts
1	Metal Casing
2	3G Antenna
3	Antenna Mounting Hardware
4	Anchor Screw Holes (3mm)
5	Antenna Connector
6	SIM Card (not included)
7	Status LEDs (see page 5)
8	JP3 Current Limitation Jumper (refer to Ratings Section)
9	PC-Link Connector
10	Tamper Switch
11	Terminal Blocks
12	Battery Leads
13	Cable Entry
14	Earth Ground Wire
15	12V - 7Ah Battery
16	3G (HSPA) Radio Module
17	SIM Card Holder

This equipment 3G3070 is fixed and shall be installed by Service Persons only (Service Person is defined as a person having the 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 available to minimize the risks to that person or other persons). It shall be installed and used within an environment that provides the pollution degree max 2, over voltages category II, in non-hazardous, indoor locations only. This manual shall be used with the Installation Manual of the relevant alarm control panel. All instructions specified within that manual must be observed.

Description

This 3G3070 manages transmissions to a central station and can simulate the landline in the event of trouble (e.g., landline down) or even substitute the landline completely in areas where the 3G or 2G wireless service is provided and a landline is not available.

The 3G3070 has the capability of communicating alarm signals via the 3G or 2G data network. This capability ensures a fast, reliable path to central stations equipped with a Sur-Gard System I / II / III / IV / 5 receiver. By connecting a 3G3070 to a control panel's standard PSTN interface, telephone-based Contact ID signals are decoded and seamlessly routed through the 3G or 2G network to any of the compatible receiver options.

The performance of the 3G3070 depends greatly on wireless network coverage. Therefore, it should not be mounted without first performing placement tests to determine the best location for reception (minimum of one green LED ON). Optional antenna kits – GS15/25/50-ANT (15ft/4.6m, 25ft/7.6m or 50ft/15.2m) – are available.

The 3G3070 shall be powered from any compatible listed control unit or compatible listed power supply that complies with the ratings specified on page 1. The power supply shall be listed for burglary applications and provide a minimum of 4 hours standby power capabilities. An example of a suitable listed compatible control unit is the DSC Model PC1864 with an AUX output rated 11.1 - 12.6VDC. An example of a suitable Listed power supply is DSC Model PC5204 with an AUX output rated 11.6 - 12.6VDC.

ATTENTION: The 3G3070 is equipped with a current limiter that limits current demand on the 12V$_{DC}$ power input to 120mA. The current limiter is enabled by default (see Part #8 in 'Identification of Parts' on page 3) with JP3 in the OFF position. The current limiter can be disabled (bypassed) with JP3 in the ON position. When the 3G3070 12V$_{DC}$ power input is supplied by the Alarm Panel Aux+ output, DSC recommends that the current limiter be active to limit the demand from the panel. If the alarm panel is intended to supply all of the current demand, you must ensure that the panel can supply 500mA and that the current limiter is disabled. When the 3G3070 is transmitting, the current demand exceeds 120mA (500mA). With the current limiter in place, the additional current demand is supplied by the 3G3070 battery.

NOTE: With the current limiter active, there is a risk of discharging the 3G3070 battery when transmission frequency is high. The back up battery must always be connected to the device when the current limiter is enabled.

If power to the 3G3070 is supplied by an external power supply (recommended 13.8 V$_{DC}$, 0.7A), the current limiter must be disabled to allow the full current demand to be supplied. In this configuration the 3G3070 battery is not required.

Installing the 3G3070

STEP 1 - Determine the Best Signal Location

1. Unscrew the four screws securing the front panel to the cabinet. Remove the front panel.
2. Fit the 3G antenna [figure 1, item 2]. Ensure the 3G antenna mounting hardware is fastened securely [figure 1, item 3].
3. Attach the 3G radio module with the 3G antenna connector. Ensure that the connector is secure.
4. Slide the SIM card holder to the left, in the direction labeled "OPEN" on the SIM card holder.
5. Insert the SIM card into the SIM card holder. The notch on the SIM card should face towards the LEDs.
6. Once the card is properly seated in the connector, press down and *slide* it into the "LOCK" position as indicated on the SIM card holder.
7. Turn on the 3G3070 and check the signal strength.
   a) Connect the battery to the RED and BLK battery leads.
   b) Connect the DC power source to +/- 12V terminals.
8. Allow the unit to power up.

NOTE: The green LEDs will indicate the signal strength. The bottom green LED must be **ON (solid)** for the location to be acceptable. Please refer to the 'Status LEDs' section for more information.

9. Power down the 3G3070 by removing the DC power source and battery leads.

STEP 2 - Connect the 3G3070

1. Using the cabinet, mark the four screw locations. Drill the anchor screw holes.

NOTE: Check for cable conduits and water pipes before drilling.

2. Using anchor screws (not provided), mount the cabinet to the wall.
3. Run the cables through the cable entry [figure 1, item 13] or through the cabinet knockouts.
4. Complete the connections on the terminal blocks [figure 1, item 11].

NOTE: Ensure that power and Telco circuit connections are made only after the cabinet has been secured to the building or structure, and has been connected to the protective earth ground. Descriptions of the terminals can be found in the 'Connecting the 3G3070' section.

5. Reattach the front cover [figure 1, item 1] securely to the cabinet.

NOTE: Please refer to Figure 4 at the end of this manual for wiring diagram.

Connecting the 3G3070

⏚ (**1) Earth Ground -** This terminal must be connected to the Mains Earth, in order to comply with the Telecommunications Network Safety Standards (Overvoltage Protection Requirements).

TIP (2) / RNG (3) External Telephone Line - These terminals must be connected directly to the incoming telephone line.

T1 (4) / R1 (5) Internal Telephone Line - These terminals must be connected to the TIP and RING of the control panel.

COM (6,14) Common - This terminal is connected internally to Power Ground.

PGM1 (7), PGM2 (8), PGM3 (9), PGM4 (10) Programmable Open-collector Outputs - These outputs can be activated by programmed events. Refer to 'Activating the Outputs' for details. The maximum current sink of each output must not exceed 50mA.

AUX+ (11) Auxiliary 12V Output - +12V Output, 200mA PTC Protected.

NOTE: Electrical current drawn from this terminal is drawn directly from the power supply. This must be added to the 3G3070 current when determining the total draw on the host panel or power supply. Jumper JP3 does not limit the electrical current available on this output.

Tamper (12-13) - These terminals are connected in series to the Tamper switch [10]. They will close when the cabinet is properly closed, and will open when the front cover is removed.

Z1-Z4 (15-16-17-18) Programmable Inputs - These terminals can be set up to trigger events. Refer to 'Inputs' for details.

12V (19), COM (20) Device Power Supply - These terminals must be connected to a rated power supply. Once the connections are completed, connect the battery leads (Red and Black wires, [12] in Figure 1) to the supplied battery.

Jumper JP3

    JP3 ON - Full power, including standby capacity, comes from the host panel or external power supply. Supply must be capable of up to 500mA (plus 200mA maximum from AUX+). The 3G3070 battery must *not* be connected.

    JP3 OFF - Current limiting mode, the host panel or external supply provides standby current. Supply must be capable of 120mA plus any current drawn from AUX+ terminal. 3G3070 battery must be installed for proper operation.

NOTE: The power supply must have a minimum voltage of 13.5V to ensure a sufficient battery charge.

NOTE: When disposing of batteries, follow the instructions and precautions printed on the batteries, and contact your municipal offices for information on the disposal of used batteries.

Status LEDs

The 3G3070 interface has four status LEDs. The following describes the control panel status LEDs.

NOTE: The top two LEDs blink during the Initializing and Programming phases.

⚠ **RED** - This LED is normally off; but, it will flash in the event of a trouble. This LED will switch on within three minutes in the event of wireless Module [figure 1, item 16] trouble, or when the wireless Network is unavailable, 'No Service'. If this LED flashes, the following list indicates the specific trouble based on the number of flashes, by priority. When turned on, the 3G3070 checks for the trouble conditions to be restored in the order listed below. The 3G3070 indicates the status of the highest priority, unrestored trouble condition with the corresponding number of flashes of the red LED. Once the highest priority trouble condition has been cleared, the next highest priority trouble condition is displayed (if applicable).

1 flash - Battery Trouble (battery with low voltage output)

2 flashes - Radio/SIM Trouble (battery absent or SIM Card disconnected)

3 flashes - Wireless Network Problem (SIM not active, poor signal strength, antenna not connected)

4 flashes - Insufficient Signal Strength (poor location)

6 flashes - Receiver not available (improper programming, receiver absent)

7 flashes - Power Supply Trouble (DC power supply absent)

8 flashes - Supervising receiver trouble

Off - No Troubles

YELLOW - When this LED is on (solid), a Phone Line Trouble condition exists. This LED switches on when the interface switches to the Wireless Network (due to a landline trouble condition). This LED will also flash once to indicate a signal transmission and twice to indicate an acknowledgment from the receiver

GREEN (Top) - When this LED is on, the reception is optimal. This LED switches on only when the other Green LED is on.

GREEN (Bottom) - If this LED is off and the Red LED is on, the Wireless Network service is unavailable (NO SERVICE). This LED flashes when the Wireless Network reception is poor. If this LED is on, the 3G3070 is able to communicate with the 3G (HSPA) or 2G (EDGE/GPRS) network.

NOTE: It is recommended that the device have at least one of the green LEDs ON (solid) for the location to be considered acceptable.

Operating Principles

Simulated Landline Mode

The simulated landline provides the alarm control panel (with dialer interface) with a back up line in the event of PSTN line trouble. If the voltage on the landline terminals (TIP/RNG) drops below 2.8V for a period of between 10 seconds and 45 seconds - depending on the device connected to the T1/R1 terminals - the 3G3070 switches the connected telephone device to the wireless network. After waiting between 30 and 40 seconds, it checks the landline for one of the following:

- If the landline has been restored, the 3G3070 switches the connected device back to the landline, OR
- If the landline is still down, the 3G3070 continues the simulation until the landline is restored. The 3G3070 will not switch during ongoing calls.

NOTE: When the landline is down, the 3G3070 provides a dial tone to any device connected to T1 and R1, including any telephones on the premises. The phones on the premises will not, however, be able to dial out over the 3G3070.

Panel Transmission Monitoring (PTM)

The 3G3070 can monitor the panel's attempts to communicate with the central station. If it determines that the panel is having difficulty, it switches the line to the wireless network. This feature is only active when the 3G3070 is configured as a back up communicator. This feature is in addition to the regular line voltage detection.

The 3G3070 monitors the phone line for four consecutive failed attempts within a 12-minute window. A failed attempt is assumed to have occurred when a line seizure takes place during dialing (either the alarm panel or the customer telephone), but no 1400Hz tone (or Contact ID kiss-off) is sent from the receiver.

Once the conditions for a failed attempt are met, the 3G3070 connects the panel to the wireless network to communicate the events. When the 3G3070 switches the line it stays in this mode until the panel hangs up. On the next event the 3G3070 restarts the error detection sequence before switching.

The 3G3070 performs this sequence on any phone number that is detected on the line. Specific central station phone numbers can be programmed into the 3G3070 if desired. Up to four, 20-digit numbers can be added. If programmed, the 3G3070 will only look for Contact ID kiss-off after these numbers are dialed.

NOTE: The number programmed in the 3G3070 must be the same as the number dialed by the panel (i.e. if the panel requires a '9' to dial on the phone line, a '9' must also be included in the 3G3070 programming).

A Telephone Line Monitoring trouble (PGM output activation and/or reporting code if applicable) is also activated and/or transmitted when the PTM is activated. A restoral is sent at the end of the call.

Wireless Communications Sequence

- When an alarm is triggered, the control panel goes off-hook.
- The 3G3070 asserts a dial tone.
- The Control panel dials the number of the central station. Ensure that the alarm panel inserts a minimum one second pause, or has Dial Tone Search enabled before dialing the number.
- The 3G3070 detects the DTMF dialing and stops dial tone.

NOTE: The 3G3070 is unable to decode pulse dialing.

- The 3G3070 sends the required Contact ID dual-tone handshake to the panel.
- After receiving the handshake, the control panel transmits an alarm message in Contact ID format.
- The 3G3070 decodes and transforms the Contact ID digits into an IP packet and sends it to the central station receiver over the wireless network.
- The central station receiver acknowledges the alarm and sends a command to the 3G3070 to generate the corresponding 1400Hz Kiss-off signal for a minimum of 800msec.

After the 3G3070 generates a Kiss-off signal, it sends the next alarm or, if no further alarms need to be sent, the control panel goes on-hook.

Inputs

The 3G3070 has four inputs that can be used to trigger specific communications. These events will transmit using Contact ID format with Inputs 1-4 reporting as [991] to [994] respectively.
Default settings are:

INPUT 1- FIRE	INPUT 3 - BURGLARY
INPUT 2 - PANIC ALARM	INPUT 4 - SYSTEM TROUBLE

These inputs are normally open and will activate when a short condition is detected between the terminal and the COM. Refer to the 3G3070 Wiring Diagram (Figure 4) at the back of this manual.

NOTE: These inputs communicate using Contact ID format.

Outputs

The 3G3070 has four programmable outputs to activate in response to the associated events. Refer to the 3G3070 Wiring Diagram (Figure 4) at the back of this manual.

Activating the Outputs

The 3G3070 has four open collector outputs capable of a maximum of 50mA. Internal events on the 3G3070 can trigger the outputs to turn on an LED or activate an input on the host panel. The default settings are as follows.

OUTPUT 1 Landline Trouble - Output is normally high and will switch to ground when the telephone line is down.

OUTPUT 2 Wireless Module or Network Trouble - Output is normally high and will switch to ground when the 3G3070 can not communicate with the 3G or 2G network.

OUTPUT 3 Power Supply or Battery Trouble - Output is normally high and will switch to ground when there is a problem with the power source.

OUTPUT 4 General Module Trouble - Output is normally low and will switch to high when a Wireless Network Trouble, Power Supply/Battery Trouble, and/or a Failure to Communicate (FTC) trouble is detected.

NOTE: PGM4 must be connected to the control panel as shown in Figure 4 (Residential applications). Program the control panel input Zone/Point as 24hr 'Supervisory' with keypad-only notification when activated. Output 4 on the 3G3070 must be set as 'Active High'.

NOTE: Once an output has been activated automatically, it will not restore its state until all the causes of activation are cleared.

Contact ID

Events Description	Event Codes
INPUT 1 ACTIVATION:	E110 FIRE ZONE 001 991
INPUT 1 RESTORAL:	R110 FIRE ZONE 001 991
INPUT 2 ACTIVATION:	E120 PANIC ALARM ZONE 002 992
INPUT 2 RESTORAL:	R120 PANIC ALARM ZONE 002 992
INPUT 3 ACTIVATION:	E130 BURGLARY ZONE 003 993
INPUT 3 RESTORAL:	R130 BURGLARY ZONE 003 993
INPUT 4 ACTIVATION:	E300 SYSTEM TROUBLE ZONE 004 994
INPUT 4 RESTORAL:	R300 SYSTEM TROUBLE ZONE 004 994
PSTN LINE DOWN:	E351 TELCO 1 FAULT 000
PSTN LINE RESTORAL:	R351 TELCO 1 FAULT 000
12V INPUT LOSS:	E337 EXP. MOD. DC LOSS 000
12V INPUT RESTORAL:	R337 EXP. MOD. DC LOSS 000
LOW BATTERY ALERT:	E338 EXP. MOD. LOW BAT 000
LOW BATTERY RESTORAL:	R338 EXP. MOD. LOW BAT 000
PERIODIC REPORT:	E603 PERIODIC RF XMISSION 000
PERIODIC REPORT WITH OFF-NORMAL CONDITION:	E608 PERIODIC TEST XMISSION SYSTEM TROUBLE PRESENT 000
3G UNIT ACTIVATION:	R552 RADIO XMITTER DISABLED 000
UNIT INTERNAL BUFFER FULL:	E624 EVENT LOG OVERFLOW 000
FTC RESTORAL:	R354 FAILURE TO COMMUNICATE 000

Swinger Shutdown

Swinger Shutdown is followed by a PSTN line trouble, limiting this event to a maximum of 3 trouble reports every 24 hours (including the PSTN line trouble sent when PTM is active). The condition will restore at midnight at which point the counter is reset.

NOTE: Swinger shutdown is applicable only to the radio-generated event codes listed above. Swinger shutdown on panel-generated events sent over the 3G3070 using dial capture is controlled by the panel settings.

Hardware Default

To perform a hardware default, follow these steps:

1. Ensure the unit is still powered down.
2. Connect a wire between PGM1 (terminal 7) and Z1 (terminal 15).
3. Power up the radio by connecting the battery first and then primary DC power.

4. Wait for 40 seconds and then completely power down the unit.
5. Disconnect the wire between the PGM1 and Z1 terminals.

NOTE: If the unit has previously received programming, a hardware default should be performed prior to reprogramming the unit. Failure to do so could result in the unit transmitting with the previously programmed configuration.

NOTE: A Hardware default must be performed when the SIM card is being swapped.

NOTE: Uploading a defaulted communicator will generate an error in the 3G3070 software application.

Low Power Radio Shutdown

When the battery voltage reaches the low battery threshold of 10.5V, the unit turns off the radio to prevent unnecessary network registrations. In this state, the unit does not communicate any events. Radio shutdown is indicated by the LEDs as follows:

- for 1 second -- red is on, yellow is off, green 1 is off, and green 2 is off.
- for 1 second -- red is off, yellow is on, green 1 is on, and green 2 is on.

This LED sequence will continue to be displayed until the low battery voltage is restored.

Programming the Device

This section contains the programming instructions using the 3G3070 software application. This programming method requires a PC-Link cable connecting the PC-Link connector of this device to the computer's COM port.

Once the PC-Link cable has been connected, set the computer COM port through the **Settings->Serial Port** option from the menu.

Viewing the Device Settings

To view the device settings on the screen, use the **Programming->Load** option from the menu.

NOTE: Uploading a defaulted communicator will generate an error in the 3G3070 software application.

Downloading the Device Settings

Once programming has been completed (or an uploaded file containing existing data has been modified), download the data into the device, using the **Programming->Download** option from the menu.

NOTE: Download program when the communicator is in initialization state (red and yellow LED flashing together).

Preliminary operations

When the application starts, the main window displays two sections on the left hand side.

Folders: This section allows the selection of programming and control pages.

Customers: This section allows the deletion or retrieval of configuration data, as follows:

1. Using the right button on the mouse, click on the customer's name.
2. Click **Load** to upload the respective data from the hard disk, or **Delete** to delete the data configuration.

Configuration data can also be loaded by double clicking the respective name.

List Customers in alphabetical or code order by clicking the heading of the column.

To start the configuration of a new customer, click on **File->New Customer** then select the device (e.g. 3G3070) from the product list.

Outputs Page

This page allows set up and control of outputs.

Output Settings

Polarity: select the polarity of the output: **H**-Normally Open **L**-Normally Closed.

Select the events that will activate the outputs: **PSTN Trouble, Cellular Trouble, Cellular Mains Fault, Warning Power, FTC.**

See the *Operating Principles* section of this manual for default output settings.

NOTE: Access Code is not used.

Contact ID Communicator Page

This page allows set up of the Contact ID function.

Events description

Customer Code - type in a 4 character code (accepted values: digits and the letters A, B, C, D, E and F).
Event Code - type in the Contact ID to be transmitted when the respective event occurs.
Send - select (tick) the events to be sent.
See the 'Operating Principles' section of this manual for default contact ID events.

Contact ID Default

Click on this button to assign the following event codes to the events managed by this device.

Event Description	Event Code	Central Station Description
Input 1 Activation	E 110	Fire Zone 001
Input 1 Restoral	R 110	Fire Zone 001
Input 2 Activation	E 120	Panic Alarm Zone 002
Input 2 Restoral	R 120	Panic Alarm Zone 002
Input 3 Activation	E 130	Burglary Zone 003
Input 3 Restoral	R 130	Burglary Zone 003
Input 4 Activation	E 150	24 Hour Zone 004
Input 4 Restoral	R 150	24 Hour Zone 004
PSTN Line Down	E 351	Telco 1 Fault 000
PSTN Line Restoral	R 351	Telco 1 Fault 000
12V Input Loss	E 337	Exp. Mod. DC Loss 000
12V Input Restoral	R 337	Exp. Mod. DC Loss 000
Low Battery Alert	E 338	Exp. Mod. Low Bat 000
Low Battery Restoral	R 338	Exp. Mod. Low Bat 000
Periodic Report	E 603	Periodic RF Xmission 000
Cellular Unit Activation	R 552	Radio Xmitter Disabled 000
Cellular Internal Buffer Full	E 624	Event Log Overflow 000
FTC Event	E 354	Failure To Communicate 000
FTC Restoral	R 354	Failure To Communicate 000

Send over Cellular

If this option is enabled, this device will only communicate via cellular network, effectively putting the communicator into primary mode. If this option is disabled, the communicator will operate in back-up mode.

Periodic Reports

This device can be programmed to send periodic Contact ID reports. This section will allows the selection of the **Date** and **Time** of the first periodic report and the **Interval** between reports.
Note: If the external power supply (connected to terminals [+12v]) and battery power supply drop at the same time, the device must be re-programmed after the power supply is restored, otherwise the time set for the Periodic Report cannot be respected.

Cellular page

This page outlines the cellular configuration options.

Access Point Name (APN)

Enter the Access Point Name of the cellular service provider being used (example: ibox.tim.it). Please contact the Cellular service provider for this information.

Receiver IP address and Port

Enter the primary (mandatory) and back-up (optional) receiver IP addresses and port numbers. Use the same IP address and port that is found in the 'Receiver Remote Port' section of the receiver.

APNs User Name and Password

Some providers may require a user name and password to validate communication. If needed, enter this information here.

DNIS

If required, enter the Dialed Number Identification Service number. This should be the same DNIS

number received at the Central Station when this panel communicates through a land-line.

Account code
An account code is required for communication with receivers. Enter the account code in this field.

No Activity Timeout
Select a value between 2 and 255 minutes (default 65min). If there is no cellular activity for the programmed No Activity Time Out period, the device will discontent from the network. The 3G3070 will reconnect once an event occurs which requires cellular communication. If programmed as 0, No Activity Timeout will be disabled and the 3G3070 will always remain connected to the cellular network.

Dialing Attempts
Select the number of dialing attempts between 1 and 15 (default 2). When the panel attempts to communicate to the receiver, the 3G3070 will count the number of attempts to each receiver. When the programmed number of dialing attempts is reached, the 3G3070 will switch from primary receiver path to the back up receiver path and reset the counter.

Supervision
Enable supervision and set the number of minutes in the supervisory period.

Panel Transmission Monitoring
Enter up to four 20-digit telephone numbers to be monitored and the number of failed attempts before take over can be selected (default 4 attempts).
See the 'Operating Principles' section of this manual for Panel Transmission Monitoring functionality.

Panel Force Dial
When enabled, any instance of the panel going off hook (3 seconds or more) / on hook with no dialed digits will be counted as a failed attempt. Enable the panel force dial feature if the control panel used with the 3G3070 does not force dial (goes off hook but will not dial if there is no dial tone)

Status Page
This page allows real-time monitoring of all device functions.
ATTENTION: The status page is updated every 5 seconds.

Status section
This section shows the cellular module data. This virtual display shows the network provider, the device battery charge (for the precise level, position the mouse arrow on the battery icon for a several seconds) and cellular signal strength (indicated by 10 bars).
The virtual communication LED is usually GREEN. It will turn RED in the event of a breakdown in communication between the software and this device. If it turns AMBER, this device is either reading the SIM card or receiving/making a telephone call, under these circumstances the status update will be suspended temporarily.

Inputs section
This section shows the status of each of the four Inputs (GREEN LED = Input balanced; RED LED = Input Unbalanced).
Note: Special functions are not used.

Outputs section
This section shows the status of each of the four outputs (GREEN LED = Output in standby; RED LED = Output activated).

Events section
This section shows the events as they occur (RED LED On).

Send next periodic message on
This section shows the date and time of the next periodic SMS text message (refer to the SMS dialer page).

Send next periodic report on
This section shows the date and time of the next periodic Contact ID report (refer to the Contact ID Communicator page).

Clear call queue
This button allows the interruption of any ongoing calls and stops the outgoing call queue.
•This option is available **ONLY** when this device operates in SMS Dialer/Contact ID Communicator mode.

Note: Turn off Cellular Module button is not supported at this time.

Troubleshooting Guide

Powering up the 3G3070 – when powering up the 3G3070, always connect the battery first before connecting primary DC power from the control panel or transformer.

Wiring Primary – R-1/T-1 of 3G3070 to RING/TIP of control panel, DC power from control panel or DC transformer to DC input, backup battery if JP3 OFF.

Wiring Backup – incoming line to RING/TIP on 3G3070, R-1/T-1 of 3G3070 to RING/TIP of control panel, R-1/T-1 of control panel to house phones, DC power from control panel or DC transformer to DC input, backup battery if JP3 OFF.

Testing Communications – when the 3G3070 transmits a signal for the control panel, or for an internal transmission, the YELLOW light will flash one time when the signal is transmitted and two times when it gets a kiss-off.

SIM – the SIM should be activated prior to installation. The 3G3070 will show signal strength with an inactive SIM, however it will display the signal strength of any available wireless network. The SIM must be active to ensure the signal strength displayed is that of the wireless network provider for which the SIM has access to.

Panel Programming – the control panel should be programmed to communicate Contact ID exactly the same way it would be programmed to communicate Contact ID over the telephone line.

Green Light Status	What it means:	Signal Strength Status
Both Green Lights **ON**	Excellent Signal Strength	• Unit can be installed in the current mounting location
One Green Light **ON**	Good Signal Strength	• Unit can be installed in the current mounting location
Bottom Green Light **FLASHING**	Poor Signal Strength	• Ensure the antenna cable is plugged securely into the radio connector • If the SIM is active, connect a battery to the unit and test various locations for good/excellent signal strength • Connect an antenna extension kit (GS-15ANT, GS-25ANT or GS-50ANT)
Both Green Lights **OFF**	No Signal Strength	• If the red light is also FLASHING, refer to the RED light chart • Verify SIM card is activated • Ensure the antenna cable is plugged securely into the radio connector • If the SIM is active, connect a battery to the unit and test various locations for good/excellent signal strength • Connect an antenna extension kit (GS-15ANT, GS-25ANT or GS-50ANT)

Yellow Light Status	What It Means: Wireless Communicator Status/Communication Indicator
Yellow Light **ON**	• When used as the primary communicator, the yellow light will always be ON • When used as a backup communicator, the yellow light will be ON when there is a no phone line connected to the 3G3070 TIP and RING, or the line voltage goes below 2.8VDC
Yellow Light **OFF**	• Indicates a good phone line is connected to the 3G3070. (more than 2.8 VDC detected across the 3G3070 TIP and RING terminals)
Yellow Light **FLASHING**	• The yellow light will flash one time when the 3G3070 transmits a signal and two times when a kiss-off is received

Red Light Status	What it means: Trouble Status	Trouble Status - Troubleshooting Steps
One Flash	3G3070 Low Battery	• Measure the battery under load and verify it is charged to at least 12.5 VDC. If not, wait at least 1 hour for the battery to charge • Remove the battery and measure the voltage across the two battery leads; the voltage should be at least 13.5 VDC • Verify the input DC supply is rated at 13.8VDC @ 120mA minimum • Ensure the 3G3070 jumper J3 is OFF
Two Flashes	SIM/Radio Trouble	• Ensure the SIM Card is inserted correctly and firmly • Ensure the antenna cable is plugged securely into the radio connector • Ensure the power source connected to the 3G3070 is providing 13.8VDC @ 120mA and that the battery is fully charged
Three Flashes	Wireless Network Problem	• Ensure the SIM card has been activated • The antenna cable should be plugged securely into the radio connector • Ensure there is good signal strength (at least one green light ON) • Verify the installation area is not experiencing a network outage
Four Flashes	Insufficient Signal Strength	• Ensure there is good signal strength (at least one 3G3070 green light ON) • Ensure the antenna cable is plugged securely into the radio connector
Six Flashes	Receiver Not Available	• Contact the monitoring station to verify that the 3G3070 programming is correct (port, IP address, DNIS) • Contact the central station to verify it is not experiencing any receiver issues
Seven Flashes	DC Supply Trouble	• Ensure the power source connected to the 3G3070 is providing 13.8VDC @ 120mA
Eight Flashes	Receiver Supervision Trouble	• This trouble is indicated when supervision is enabled and the unit is not able to successful communicate with the receiver • if this trouble persists, contact the central station

The Red light will flash to indicate various trouble conditions outlined previously. If multiple trouble conditions are present, the red light will flash according to the highest priority trouble. For example, if both a 3G3070 low battery trouble (one flash) and an insufficient signal strength trouble (four flashes) are

present; the red light will flash one time. Once the 3G3070 low battery trouble condition is corrected, the red light will then begin flashing four times.

General Troubles with System	
The control panel is displaying a telephone line trouble condition	• Ensure T1 and R1 of the 3G3070 are wired to the TIP and RING terminals of the control panel • If the 3G3070 is being used as the primary communicator, the yellow light will always be ON • If the 3G3070 red light is FLASHING, refer to the Red Light Status Chart
The control panel displays a communication trouble condition	• Ensure the panel is programmed for Contact ID • Ensure the control panel does not indicate a TLM trouble condition • If the 3G3070 red light is FLASHING refer to the Red Light Status chart in this guide
No signals are received at the central station but no trouble condition is displayed	• Ensure the control panel has a central station phone number programmed • Ensure the control panel has the correct account number programmed • Verify the reporting codes are programmed or the auto Contact ID option is enabled • Ensure the control panel communicator is enabled • Connect a handset to T1 and R1 of the 3G3070 in monitor mode to verify the control panel is trying to communicate
Not receiving internal signals generated directly from the 3G3070	• Ensure the 3G3070 was initialized with the correct account number. • Ensure that there are no trouble conditions on the 3G3070
The 3G3070 Yellow and Red lights flash constantly	• Ensure there is good signal strength (at least one 3G3070 green light ON) • Ensure the SIM card is activated. Depending on signal strength and network activity it can take up to 10 minutes for the unit to establish a connection with the receiver. • Cycle power and verify SIM and signal
The phone line is seized when the 3G3070 is connected	• Verify correct phone line wiring • Ensure the Ringer Equivalency Number (REN) is not being exceeded on the line

General Information	
Removing/Connecting the antenna	• To remove the antenna from the 3G3070, place your thumb on the end of the connector at the modem, then place a screwdriver between the modem and connector. Gently turn the screwdriver away to 'pop' out the connector from the modem • To install the antenna, firmly push the the connector into the modem until it 'snaps' into place
Critical Shutdown on 3G3070 backup battery	• If the 3G3070 backup battery is used and is below 10.5VDC, the unit will go into critical shutdown • The critical shutdown state will be displayed by the red light flashing followed by the yellow and two green lights flashing • The lights will continue to flash in this sequence until the battery is charged above 12.4VDC
Swinger Shutdown for Telephone Line Monitor (TLM) transmissions for backup units	• If the 3G3070 is configured as a backup, it can send a maximum of 3 TLM troubles and restorals per day • TLM Swinger Shutdown only affects signal transmissions, not the functionality of the 3G3070 lights or PGM outputs
Critical Shutdown on 3G3070 backup battery	• If the 3G3070 backup battery is used and is below 10.5VDC, the unit will go into critical shutdown • The critical shutdown state will be displayed by the red light flashing followed by the yellow and two green lights flashing • The lights will continue to flash in this sequence until the battery is charged above 12.4VDC
Swinger Shutdown for Telephone Line Monitor (TLM) transmissions for backup units	• If the 3G3070 is configured as a backup, it can send a maximum of 3 TLM troubles and restorals per day • TLM Swinger Shutdown only affects signal transmissions, not the functionality of the 3G3070 lights or PGM outputs

Figure 2 Telephone Connection

Figure 3 - Power Supply and Supervision Wiring Diagram

NOTES

1. Program the Zone/Point as "Supervisory" type with keypad only annunciation when in Alarm. **Do NOT use a point that is normally used for 2-Wire Smoke detectors.**

2. The power Supervision relay, **RM-2** is only used when the 3G3070 is *not* powered by the control panel. When the Radio is powered by the control panel the relay is not required since a loss of input power will generate a signal to the CMC.

3. Output 4 on the 3G3070 must be set as "Active High" (default).

4. When powering the 3G3070 Radio by an Auxiliary Power supply that has its own backup battery, insert JP3 jumper on the radio and remove the 1.2AH battery that came with the radio.

Figure 4 - Wiring Diagram

WARNING!
HIGH VOLTAGE. DISCONNECT AC
POWER & TELEPHONE LINES
PRIOR TO SERVICING

3G3070

BATTERY
Sealed Rechargeable
12V / 1.2Ah

Battery not required if JP3 is ON

Typical battery charge: 30-50 mA
Recommended Model: 12V/1.2Ah or 12V/7Ah (for order code 3G3070 only)

9-14VDC/ *700mA (max)
*Refer to Jumper 3 section for current rating

Panel Aux Power or External Power Supply (13.8Vdc required for normal, long-term operation)

⚠ This Connection is necessary

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|⏚| TIP | RNG | T1 | R1 | COM | PGM1 | PGM2 | PGM3 | PGM4 | AUX+ | TAMPER | I3 | COM | Z1 | Z2 | Z3 | Z4 | + DC IN - |

Inputs to be connected to dry contact outputs from alarm control panel

Tamper Output

1K5
Optional use of PGM output (See Programming)

Supervision Relay

Connect relay contacts to a zone input on the alarm control panel for 3G3070 troubles supervision (24hr-type zone)

T I P
R N G

Alarm Control Panel with Dialler Interface
(Supports Contact ID format)

RJ-45
Telephone Line Connection
(Use No. 26 AWG wires for the connection to PSTN)

Earth-ground

GROUND CONNECTION
Tighten nut to break paint & make good connection to the cabinet.

Nut
Lock washer
Nut
Lock washer
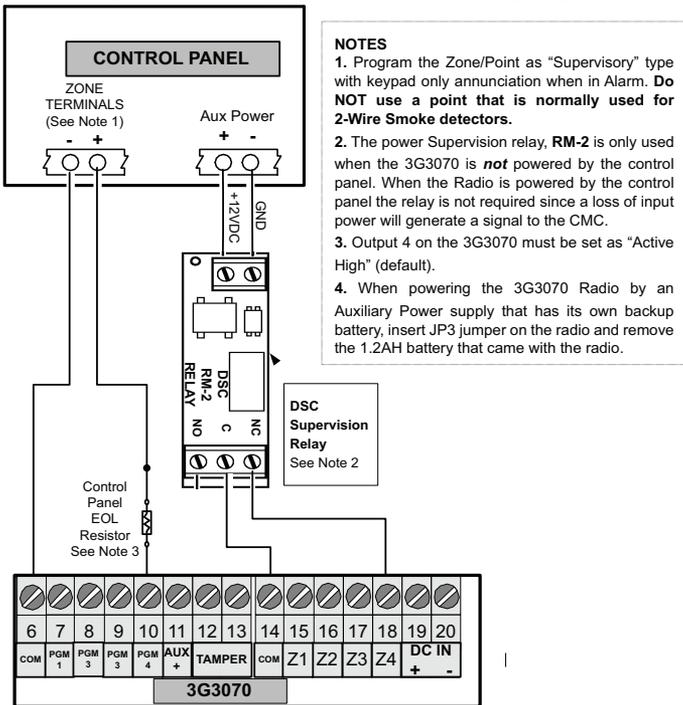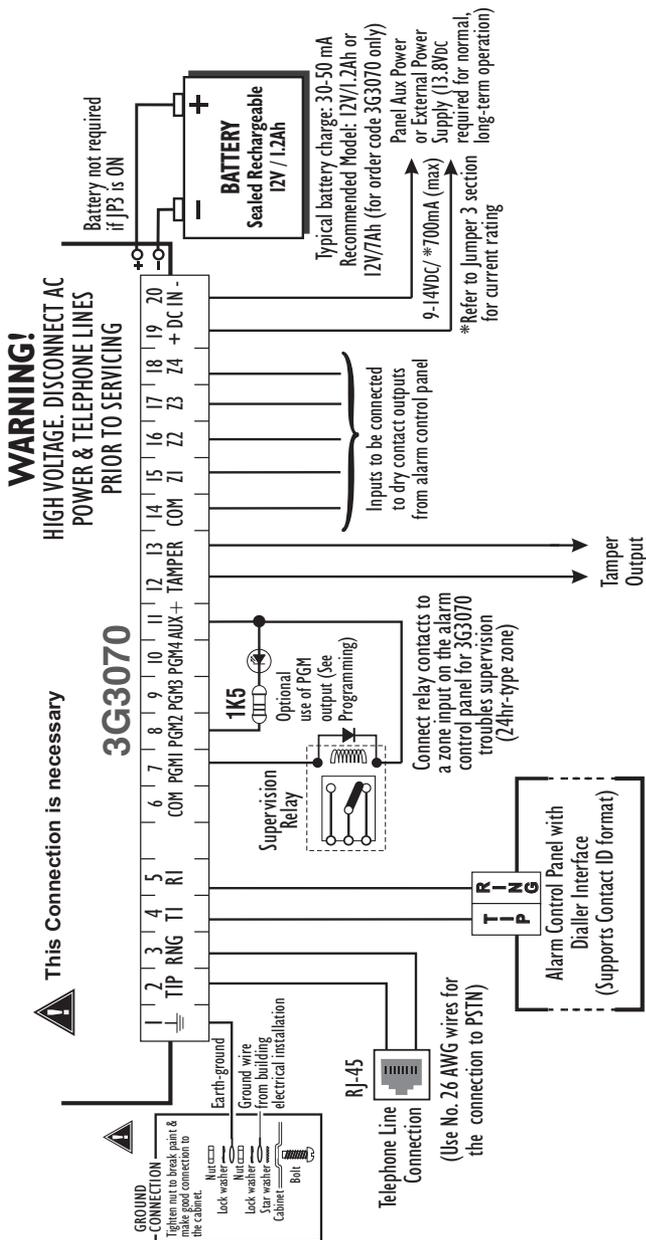Star washer
Cabinet
Bolt

Ground wire from building electrical installation

WARNING: Incorrect connections may result in PTC failure or improper operation. Inspect wiring and ensure connections are correct before turning on.

Do not route any wiring over circuit boards. Maintain at least 1" (25.4mm) separation. A minimum 1/4" (6.4mm) separation must be maintained at all points between Power Limited wiring and all other Non-Power Limited wiring. Route wires as indicated in the diagram.

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WARNING: DSC 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 SOFTWARE PRODUCT to fail to perform as expected.

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment. This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio 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
• Relocate the alarm control with respect to the receiver
• Move the alarm control away from the receiver
• Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "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.

IMPORTANT INFORMATION

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be provided to the Telephone Company.

3G3070 Product IdentifierUS: F53MO00B3G3070
REN:0.0B
USOC Jack:RJ-31X

Telephone Connection Requirements

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Ringer Equivalence Number (REN)

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call.

In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format: US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Incidence of Harm

If this equipment 3G3070 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Changes in Telephone Company Equipment or Facilities

The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

Equipment Maintenance Facility

If trouble is experienced with this equipment for repair or warranty information, please contact the facility indicated below. If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is solved. This equipment is of a type that is not intended to be repaired by the end user.

DSC c/o APL Logistics, 757 Douglas Hill Rd., Lithia Springs, GA 30122

Additional Information

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Alarm dialling equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialling equipment must be connected to a properly installed RJ-31X jack that is electrically in series with and ahead of all other equipment attached to the same telephone line. Proper installation is depicted in the figure below. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer about installing the RJ-31X jack and alarm dialling equipment for you.

Customer Premises Equipment and Wiring
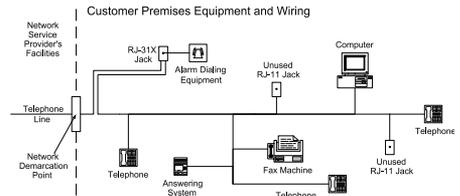
Industry Canada Compliance Statement

This Equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that that Industry Canada approved the equipment. The Ringer Equivalence Number (REN) for this terminal equipment is 0.0. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all devices does not exceed 5.

Cet équipement est conforme aux spécifications techniques applicables aux équipements terminaux d'Industrie Canada. Ceci est confirmé par le numéro d'enregistrement. L'abréviation IC précédant le numéro d'enregistrement signifie que l'enregistrement a été effectué sur la base de la Déclaration de conformité indiquant que le produit est conforme aux spécifications techniques d'Industrie Canada. Ceci n'implique pas que le produit ait été approuvé par Industrie Canada.

Le nombre équivalent de sonneries (REN) de cet appareil terminal est 0.0. Le REN attribué à chaque équipement terminal fournit une indication sur le nombre maximum de terminaux pouvant être connectés sur une interface téléphonique. La terminaison sur une interface peut constituer en n'importe quelle combinaison d'appareils, à la condition seulement que la somme des Nombres équivalents de sonneries de tous les appareils ne soit pas supérieure à 5.

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations. Cet appareil numérique de la Classe B respecte toutes les exigences de règlement sur le matériel brouilleur du Canada.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20cm or more must be maintained between the antenna of this device and persons during device operation.

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' 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.

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.

DSC

From Tyco Security Products

Tech Support: 1-800-387-3630 (Canada & US) or 905-760-30000 - www.dsc.com

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