

# Alarm Communicator

## GS2060-RS

GPRS/GSM Wireless Communicator

## TL260-RS

Ethernet/Internet Communicator

## TL260GS-RS

Ethernet/Internet and GPRS/GSM Dual-Path Communicator



**v2.0**  
**Installation Manual**

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**Warning:** This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer.



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# WARNING Please Read Carefully

## Note to Installers

This **Warning** contains vital information. As the only individual in contact with system users, it is the installer's responsibility to bring each item in this **Warning** to the attention of all 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:

#### 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.

#### 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.

#### 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.

#### 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 your security system be reviewed periodically to ensure that its features remain effective and that it is updated or replaced if it is found that it does not provide the protection expected.

#### 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.

#### 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.

#### 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.

#### Insufficient Time

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

### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

## GENERAL

### IMPORTANT

This Installation Manual shall be used in conjunction with the Alarm controller Power Panel manual; All the safety instructions specified within that manual shall be observed. (or equivalent). The alarm controller Power Panel is referenced as "panel" throughout this document.

The GPRS/Ethernet Communicator is fixed, wall-mounted unit and shall be installed in the location 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,
- Interference between power limited and non power limited wiring,
- Loosening of terminal; connections, or
- Damage of conductor insulation.

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

### Safety Information

The Installer must instruct the System user on each of the following:

- Do 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 personnel only.
- Use authorized accessories only with this equipment.

Do not stay close to the equipment during device operation and to do not touch the antenna,

### Model Information

**GS2060-RS:** Is a General Packet Radio Service/Global System for Mobile (GPRS/GSM) wireless alarm Communicators that send alarm communication to Sur-Gard System I, II, III (SG-DRL3IP), and IV (SG-DRL4IP) central station receivers via a GPRS/GSM digital cellular network.

**TL260-RS:** Is an Ethernet alarm Communicator that send alarm communication to Sur-Gard System I, II, and III central station receivers through Ethernet/Internet connection.

**TL260GS-RS:** Is a Dual-path GSM/Ethernet alarm Communicators that send alarm communication to Sur-Gard System I, II, III, and IV central station receivers through Ethernet/Internet or a GPRS/GSM digital cellular network.

The Communicator can be used as either a backup or primary Communicator. The Communicator supports Internet Protocol (IP) transmission of panel and Communicator Events over Ethernet/Internet and/or GPRS/GSM.

The GPRS/GSM performance of the GS2060-RS and TL260GS-RS Communicators depends greatly on GSM network coverage. The unit should not be mounted in the final location without first performing the Communicator Placement Test on page 10 to determine the best location for radio reception (minimum of one green LED ON). Optional antenna kits are available from DSC at: <http://www.DSC.com>.

**NOTE: Prior to installation of the GS2060-RS/TL260GS-RS Communicator, confirm with your carrier that the GPRS/GSM network is available and active in the area where the Communicator will be installed and that radio signal strength (CSQ) is adequate.**

### Panel Mounting

The following Communicators are compatible with PC1616/PC1832/PC1864:

- **GS2060-RS** (GPRS/GSM only)
- **TL260-RS** (Ethernet/Internet only)
- **TL260GS-RS** (Ethernet/Internet + GPRS/GSM dual-path)

### Features

- 128-bit AES encryption via GPRS/GSM and Ethernet/Internet (NIST Validation Certificate No. 995).
- Backup or primary GPRS/GSM alarm communication.
- Ethernet LAN/WAN 10/100 BaseT (TL260-RS/TL260GS-RS only).
- Full event reporting to central station (UL/ULC Listed), and external equipment via RS-232 (UL/ULC Listed).
- Fully redundant Ethernet/Internet and GPRS/GSM Dual-path Alarm Communication (TL260GS-RS only).
- Individual Ethernet and/or GPRS Periodic test transmission.
- Integrated call routing.
- Panel remote uploading/downloading support via GPRS/GSM and Ethernet/Internet.
- PC-LINK connection.
- Programmable Labels
- Quad-Band Operation: 850 MHz, 900 MHz, 1800 MHz, and 1900 MHz.
- RS-232 unbalanced line communication to customer furnished equipment up to 50 ft. (16 m).
- SIA and Contact ID (CID) formats supported.
- Signal strength and Trouble display LEDs.
- Subscriber Identity Module (SIM) card included with Communicator.
- Supervision heartbeats via GPRS/GSM and Ethernet/Internet.

### Technical Specifications

The input voltage to the Communicator can be drawn from the Underwriters Laboratories/Underwriters Laboratories Canada (UL/ULC) Listed Control Panel or provided by an external UL/ULC Listed power supply rated for the application (external power-limited source).

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

### UL/ULC Installation Requirements

**NOTE: For equipment used at the protected premises and intended to facilitate IP communications (hubs, routers, Network Interface Device (NID)s, Digital Subscriber Line (DSL/Cable modems) 24 hour back-up power is required. Where such cannot be facilitated, a secondary (back-up) communication channel is required. Programming for Domain Name Service (DNS) is not permitted in UL/ULC Listed systems.**

**Notes for using Private, Corporate, and High Speed Data Networks:**

Network access and domain access policies shall be set to restrict unauthorized network access, and spoofing or Denial of Service (DoS) attacks. Select an Internet Service Provider (ISP) that has redundant servers/systems, back-up power, routers with firewalls enabled, and methods to identify and protect against DoS attacks (e.g., via spoofing).

**Notes for using Public Switched and Wireless Data Networks:**

Communication channels shall be facilitated such that the Communicator will restrict unauthorized access, which could otherwise compromise security. Communicators shall be located in secured areas.

- For UL Residential fire and burglary applications the TL260GS-RS can be used as primary communication channel via either GSM or Ethernet or as a back-up in conjunction with the Digital Alarm Communicator Transmitter (DACT). Test transmission every 24hours shall be enabled on each channel.
- For UL Commercial Fire and Burglary applications the GS2060-RS/TL260GS-RS can be used as a passive communication module with the following Security Levels:
  - P1 (each channel GSM or Ethernet is independent),
  - P2 (GSM and Ethernet in back-up configuration, panel Section [851][005] Toggle Option [5] OFF),
  - P3 (GSM and Ethernet in redundant configuration, panel Section [851][005] Toggle Option [5] ON).
- The module can be also used as an Active communication system with the Security Levels A1-A4 (each channel GSM or Ethernet independent or together in a back-up/redundant configuration). For Active Line Security systems AES128 bit encryption shall be enabled at the monitoring station receiver and the supervision heartbeat rate shall be set as **90 seconds** (panel Section [851] [004] = 005A/90). The supervision window at the Signal Receiver Centre (SRC)'s receiver shall be programmed as maximum 00B4/180 seconds.
- For UL Residential fire and burglary applications the GS2060-RS and TL260GS-RS can be used as primary communication channel via either GSM or Ethernet, or as a back-up in conjunction with the DACT (30 day test transmission is required on each channel).
- For UL Commercial Burglary applications the TL260GS-RS module can be used as Dual Signalling Line communication system (GSM and Ethernet channels used in redundant configuration), Standard Line Security and as Encrypted Line Security.
- The supervision heartbeat shall be enabled (panel Section [851] [005] Toggle Option [1] (Ethernet) and/or Toggle Option [2] (GSM) shall be ON), Toggle Option [3] (Supervision Type) shall be ON and the supervision heartbeat rate shall be selected as 0087/135 seconds Option [004] = 0087. The supervision window at the supervising station shall be maximum 00C8/200 seconds. For Encrypted Line Security systems the encryption AES128 bit shall be enabled at the monitoring station receiver.
- For UL Commercial Burglary installations, the GS2060-RS is listed as a primary (sole) communication means (heartbeat must be enabled) or for supplementary (back-up) use in conjunction with a Plain Old Telephone Service (POTS) line (dialer). When the heartbeat transmission over the Ethernet or GPRS/GSM network is enabled, using the TL260GS-RS with a compatible control unit listed for standard/encrypted line security, it can provide line security for the alarm system over the primary line.
- The TL260GS-RS is also suitable to be used with a compatible control unit listed for dual line security transmission when used in conjunction with a Digital Alarm Communicator Transmitter (DACT) or a Public Switched Data Network (PSDN) transmitter, where the PSDN provides the line security and is the primary line. In this mode, alarm signals are required to be sent simultaneously over both communication methods.

**RatingsCompatibility**

**Table 1: Communicator Ratings**

Model	GS2060-RS GPRS/GSM only	TL260-RS Ethernet Only	TL260GS-RS Ethernet &GPRS/GSM
<b>POWER SUPPLY RATINGS</b>			
Input Voltage	13.6V DC: The panel Bell output shall be derated: 700mA - (Communicator mA) = (derated Bell output).		
<b>CURRENT CONSUMPTION</b>			
Standby Current	70mA @ 13.66V	80mA @ 13.66V	100mA @ 13.64V
Alarm (Transmitting) Current	4000mA @ 13.65V	4000mA @ 13.65V	400mA @ 13.64V
Operating Frequency	Quad band 850MHz, 900MHz, 1800MHz, 1900MHz		
Typical Antenna Gain	2dBi		
<b>ENVIRONMENTAL SPECIFICATIONS</b>			
Operating Temperature	0°C - 49°C (32°F- 120°F)		
Humidity	5% ~ 93% relative humidity, non-condensing		
<b>MECHANICAL SPECIFICATIONS</b>			
Board Dimensions (mm)	100 x 150 x 15	100 x 150 x 18	100 x 150 x 15
Weight (grams) with bracket	310	290	320

**Table 2: Compatible Receivers, and Power Panels**

Communicator	Receiver/ Panel	Description
GS2060-RS TL260-RS TL260GS-RS	Receiver	<ul style="list-style-type: none"> <li>Sur-Gard System I Receiver, version 1.30+</li> <li>Sur-Gard System II Receiver, version 2.10+</li> <li>Sur-Gard SG-DRL3-IP, version 2.30+ (for Sur-Gard System III Receiver)</li> <li>Sur-Gard SG-DRL4-IP version 1.20+ (for Sur-Gard System IV Receiver)</li> </ul>
	Power Panel	<ul style="list-style-type: none"> <li>Power Series PC1616, version 4.5+</li> <li>Power Series PC1832, version 4.5+</li> <li>Power Series PC1864, version 4.5+</li> </ul>

**NOTE: Enter [\*][8][Installer Code] [900] at keypad to view the Power Panel Version number.**

Products or components of products, which perform communications functions only shall comply with the requirements applicable to communications equipment as specified in UL60950 or CAN/CSA-C22.2 No. 950-1, Information Technology Equipment - Safety - Part 1: General Requirements. Where network interfaces are internal to the control unit or receiver, compliance to CAN/CSA-C22.2 No. 950-1 is adequate. Such components include, but are not limited to: hubs; routers; NIDs; Third party communications service providers; DSL modems; and Cable modems.

### Customer Furnished Equipment

The Communicator provides monitoring and control via an RS-232 link to an external device, Customer Furnished Equipment (CFE). The default communication link speed is 115.2 KB and this option is programmable by the installer. All life-safety events are encrypted and transmitted by the GPRS path to the central monitoring station. All life-style events are transmitted by the RS-232 link, using IT V2.0 protocol to the customer device.

**NOTE: Customer furnished equipment may be an interface device which connects to security panels, IP cameras, sensors, Z-wave based home automation devices, etc. to deliver a host of advanced functionality.**

The following features are available with the RS-232 Communications Interface:

- Communicator faults can be transmitted.
- Panel communication errors are reported to the CFE.
- Real time reporting of zone status information to the CFE.
- Remote update the Communicator (flash upgrade).
- SMS incoming "wake up" for the GPRS channel.
- WEB login will request an incoming session with the Communicator.
- Zone Label Programming.

**NOTE: Communicator buffers 1,000 date/time stamped Life Style events to CFE as First In First Out (FIFO).**

## PRE INSTALLATION CONFIGURATION

### Encryption

The Communicator uses 128 Bit AES Encryption. Encryption can only be enabled from the monitoring station receiver. Each receiver can independently have encryption enabled or disabled. When encryption is enabled, the central station will configure the device to encrypt communications the next time the Communicator module performs a communication to that receiver.

**NOTE: Packets will start being encrypted only after the next event is sent to that receiver, or if the unit is restarted.**

**Before leaving the installation site, the Communicator TL260-RS/TL260GS-RS shall be connected via an APPROVED (acceptable to the local authorities) Network Interface Device (NID) (e.g., for UL Installations, U60950 listed NID). All wiring shall be performed according to the local electrical codes.**

## COMMUNICATOR PRE INSTALLATION CONFIGURATION

This GSM/Ethernet -RS Communicator 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 can also take measures to minimize the risks to that person or other persons). The Communicator 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 alarm control panel which is connected to the GSM/Ethernet Communicator. All instructions specified within the panel manual must be observed.

All the local rules imposed by local electrical codes shall be observed and respected during installation.

### Running the Ethernet Cable

(TL260-RS/TL260GS-RS only)

A Category 5 (CAT 5) ethernet cable must be run from a source with Ethernet/Internet connectivity to the Communicator module, inside the Power Panel. The Communicator end of the cable must be terminated with an RJ45 plug, which will connect to the Communicator's RJ45 jack after the Communicator is installed. All requirements for installation of CAT5 ethernet cable must be observed for correct operation of the Communicator, including, but not limited to, the following:

- Do NOT strip off cable sheathing more than required for proper termination.
- Do NOT kink/knot cable.
- Do NOT crush cable with cable ties.
- Do NOT untwist CAT5 pairs more than 1.2cm (½ in.).
- Do NOT splice cable.
- Do NOT bend cable at right angles or make any other sharp bends.

**NOTE: CAT5 specification requires that any cable bend must have a minimum 5 cm (2 in.) bend radius. Do NOT exceed maximum 15cm (6 in.) from center of ferrite to T-Link Network Connector. Maximum length of CAT 5 cable is 100m (328 ft.).**

### Running the RS-232 Cable

An RS-232 cable must be connected to the CFE and cable run to the Communicator module inside the panel.

**NOTE: Maximum cable length for RS-232 cable is 16 m (50 ft.)**

At the communicator, attach wires as follows:

1. Securely fasten the **TX** wire on the terminal block.
2. Securely fasten the **RX** wire on the terminal block.
3. Securely fasten the **GND** wire on the terminal block.

Table 3: RS-232 Connector Pin Assignment

PIN	1	2	3	4	5
Signal Name	TX		RX		GND

4. Connect the other end of the RS-232 cable to the Customer Furnished Equipment.

**Inserting and Removing the SIM Card**

1. If the Communicator is installed in a Power Panel, remove the front cover of the Panel to access SIM holder.
  2. Remove power from the panel and disconnect the battery.
  3. On the SIM card holder push gently to slide the cover towards the Printed Circuit Board (PCB) antenna, as indicated by the arrow on SIM holder, to OPEN. This will unlatch the SIM card holder on the side closest to edge of the Communicator PCB.
  4. Lift up the SIM card holder from the side that is not hinged.
- NOTE: The SIM can be damaged by bending, or scratching contacts. Use caution when handling SIM cards.**
5. Insert or remove the SIM card, noting the orientation of the notches on the SIM card and the SIM card holder.
  6. When inserting a SIM card, insert the card in the proper orientation and gently push the SIM card holder down and slide the holder as indicated by the arrow on SIM holder, to LOCK. (See Figure 3).
  7. Reconnect the backup battery, apply AC power to panel, and replace the panel cover.

**Hardware Reset**

The Communicator can be hardware reset by installing a jumper between Pins 4 and 5 on the AUDIO/DEFAULT connector and restarting the Communicator. Installing jumper during normal operation has no effect.

**INSTALLING THE GSM/ETHERNET COMMUNICATOR IN PANEL**

**Installing Communicator with PC1616/1832/1864 Panel**

**WARNING!**

**BEFORE INSTALLING THE COMMUNICATOR WITHIN THE PANEL, DISCONNECT POWER AND TELEPHONE LINE FROM THE PANEL.**

1. To assemble mounting bracket, perform the following (See Figure 1).

- a. Remove the 4 white plastic standoffs from the bag provided with the Communicator kit.
- b. Insert the 4 standoffs through the back of the supplied mounting bracket, into the holes at each corner. (The antenna mounting tab should be facing away from you).
- c. Place the bracket on a flat, solid surface. Hold the Communicator face up and orient the 4 holes on the Communicator with the 4 standoffs protruding from the bracket. Push the Communicator firmly and evenly onto the standoffs until it is securely attached to the mounting bracket.
- d. Remove the alarm panel front cover.

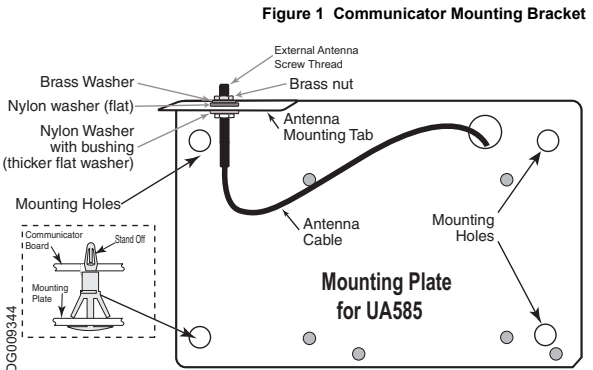


Figure 1 Communicator Mounting Bracket

- e. **TL260-RS/TL260GS-RS only:** Remove and discard the circular knockout located in the top-right section of the panel. (This hole will be used for connection of the supplied radio antenna).
- f. **TL260-RS/TL260GS-RS only:** Connect the supplied 12.7cm (5") antenna cable to the radio, by passing the connector through the hole on back of the mounting bracket to the Communicator board. Push the antenna connector firmly into the socket on the GSM radio. (See Figure 3).

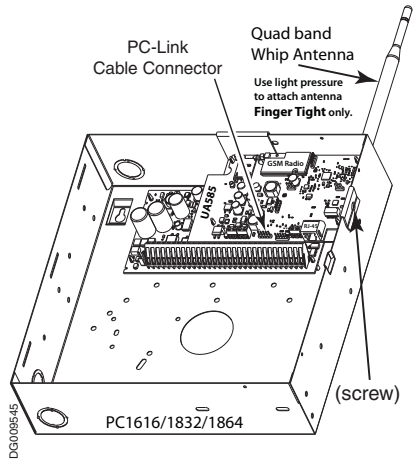


- g. **TL260-RS/TL260GS-RS only:** Place the nylon washer with bushing (thick flat washer) onto the threaded section of the antenna cable. Insert the threaded section through the antenna mounting knockout hole. Place the second nylon washer (flat), followed by the brass washer and the brass nut, onto the threaded section of the cable, outside the panel. Tighten the assembly by hand only (Finger Tight - Do not overtighten the assembly).
2. Install the Communicator module into the panel:  
(See Figure 3).
- a. Attach one end of the PC-LINK cable to the panel PC-LINK header on the panel (red wire goes on Pin 1 of the panel PC-LINK header).
- b. Insert the assembled Communicator into the panel.

**NOTE: Ensure that the threaded antenna connection point is visible through the knockout hole at the top right of the panel.**

- c. Locate the screw hole on the right side wall of the panel. See Figure 2 (screw). Line up the assembled Communicator with the side wall of the panel and, using the screw provided, secure the mounting bracket to the panel.
- d. Attach the other end of the PC-LINK cable to the Communicator (black wire goes on Pin 1 of the Communicator). See Figure 3.
- e. **TL260-RS/TL260GS-RS only:** Using light pressure (finger tight), attach the supplied 5" white quad band whip antenna to the threaded antenna connection point at top of the panel.

Figure 2 PC1616/1832/1864 Control Panel



**WARNING!**

**GS2060-RS/TL260-RS/TL260GS-RS MODULES ARE POWER LIMITED. DO NOT ROUTE ANY WIRING OVER THE CIRCUIT BOARD. MAINTAIN AT LEAST 25.4MM (1IN.) SEPARATION BETWEEN CIRCUIT BOARD AND WIRING. A MINIMUM OF 7MM (1/4 IN.) SEPARATION MUST BE MAINTAINED AT ALL POINTS BETWEEN NON-POWER LIMITED WIRING AND POWER LIMITED WIRING.**

3. To electrically connect the Communicator to the panel, perform the following steps (See Figure 3)
- a. Disconnect both AC power and battery connections from the panel.

**Module Power Connection**

- b. Attach a wire from the Communicator's left **PWR** terminal to the panel's **BELL+** terminal.
- NOTE: For ULC Commercial Fire Monitoring applications: Do NOT connect any devices on the Bell + terminal other than the Communicator.**
- c. Attach a wire from the Communicator's **GND** terminal (beside PWR) to the panel's **AUX -** terminal.
- d. Attach a wire from the Communicator's **SHLD** terminal to the panel's **EGND** terminal. (Protective earth ground).

**External Bell/Siren Connection (Optional)**

- e. Attach a wire from the Communicator's right **PWR** terminal to the positive (+) terminal on the Bell/Siren. (See Figure 3).
- f. Attach the panel's **BELL -** terminal to the negative (-) terminal on the Bell/Siren.
- NOTE: If a Bell/Siren is not used, install the 1K $\Omega$  1/2 W 5% resistor (Brown, Black, Red, Gold) (supplied with the panel) between the panel's Bell + and Bell - terminals, then only wire the BELL + to the PWR terminal on the Communicator.**
- g. Confirm that the SIM card is inserted and locked. (See Figure 3).



7. Perform the following steps for initial power on of the panel with Communicator installed:
  - a. Reconnect the telephone line, AC power and battery + connector to the Panel. (the Communicator and Panel will power up together).
  - b. Observe that the Communicator's red and yellow LEDs are flashing together while it initializes. The red and yellow LEDs will continue to flash until the Communicator has successfully communicated to all programmed receivers. If this is the first time the Communicator has been powered up, the module will request programming remotely.

**NOTE: Initialization may take several minutes to complete. Red and yellow LEDs will flash together during initialization. Do not continue to next step until the red and yellow LEDs have stopped flashing. (If only the yellow LED is flashing, there is a Communicator trouble and the Green LEDs are not valid for Communicator Placement Test). Correct trouble indicated by flashes on yellow LED before continuing. (See Table 6 for troubleshooting assistance).**

- c. At the keypad, enter [\*][8][Installer Code][382] and confirm that Toggle Option [5] is **ON** (GPRS/Ethernet Module Enabled).
8. **TL260-RS/TL260GS-RS only:** Perform the Communicator Placement Test on page 10.
9. Mount the Panel in final location.

## INITIAL PANEL PROGRAMMING

**ⓘ Domain Name Service (DNS) programming is not permitted in UL/ULC listed systems.**

### Keypad Data Display

- **Section-Toggle Options:** The number is displayed when Toggle is ON, the number is not displayed when Toggle is OFF. (e.g., Toggle Options displays: "1--3--6--1". Options **3** and **6** are **ON**, all others are **OFF**). Pressing keys 1 through 8 will alternately turn the Toggle ON and OFF.
- **HEX/Decimal Data:** Values that are provided with two defaults, separated by a / character, use the format: hexadecimal followed by decimal equivalent (e.g., Default [0BF5/3061]). Hexadecimal numbers are shown, with all leading zeroes, to the full field length defined for the number.

### Entering HEX values at keypad

To enter HEX values at the keypad, you must press the \* key before entering the HEX value. (e.g., to enter "C" at the keypad, press [\*][3]).

### Entering ASCII Characters at keypad

1. Press [\*] and use scroll buttons [←] [→] to display "ASCII Entry" on the LCD screen.
2. Press [\*] to select ASCII entry mode.
3. Use the [←] [→] scroll keys to display the character you want and press [\*] to save and exit ASCII.
4. Repeat the steps above to enter another ASCII character.

### PC1616/1832/1864 Initial Programming

Perform the following steps to ensure that the Communicator and the panel work together as intended.

These Sections must be programmed at the panel keypad. Enter [\*][8][Installer Code][Section Number]. Record any values that are modified from their default, in the appropriate Worksheets for the Panel or Communicator.

1. In Panel Section [167] program **060** (seconds).
2. A valid Account Number must be entered in Section [851][021]. See Programming Section for details.
3. In Panel Sections [301], [302], and [303], program the central station telephone number that will be used for the GPRS/Ethernet Communicator. Valid entries are:
  - a. A valid telephone number; signals will be routed to the central station using the Public Switched Telephone Network (PSTN).
  - b. **DCAA** (Receiver 0); signals will be routed to GPRS/Ethernet Receivers 1 - 4 depending on programming in Communicator Section [851][006].
  - c. Panel Section [301] sets the Primary communication path, and may be configured as either PSTN or Communicator routing. Panel Section [302] is redundant, and Panel Section [303] is the backup telephone number for Panel Section [301].

**NOTE: The leading digit 'D' (dial tone detection) in the telephone number is pre-programmed.**

4. In Panel Section [350], program the communication format as CID (03) or SIA FSK (04).

**NOTE: If any of the panel telephone numbers have been set to DCAA, this section must be set to [04].**

5. In Panel Sections [351] - [376], program the Communicator call direction options. Refer to the Panel Installation Manual for options.
6. In Panel Section [382], ensure Toggle Option [5] 'GPRS/Ethernet Module Enabled' is **ON**. If this option is OFF, the yellow status LED on the Communicator will indicate 'Panel Supervision Trouble' (2 flashes) and the unit can not be programmed via PC-LINK cable.
7. In Panel Section [401] set Toggle Option [2] 'User Enable DLS' to **ON** in order to perform panel DLS session through GPRS or Ethernet.

**NOTE: Before leaving the premises, the installer should verify all programmed communications paths. Refer to Programming Worksheets Section [901] to send immediate test transmissions.**

### Communicator Troubles displayed on a PC1616/1832/1864

The General System trouble is the only trouble that will appear on the keypad Liquid Crystal Display (LCD) when encountered by a Communicator installed in a PC1616/1832/1864. For more information about the trouble on the Communicator module refer to the panel event buffer. Log entry will show Fault or Restore for each of the following events:

- **T-LINK Network Fault/Restore:** This log will occur for the following trouble conditions: SIM Lock Trouble, GSM Trouble, Ethernet Trouble, or Connect 24 Configuration Trouble.
- **T-LINK Receiver Trouble/Restore:** This log will occur for the following trouble conditions: Receiver Not Available Trouble, Receiver Supervision Trouble, or Failure to Communicate (FTC) Trouble.
- **T-LINK Comm. Fault/Restore:** This log will occur when the panel loses communications with the Communicator and will clear when communications is restored.

## COMMUNICATOR PLACEMENT TEST

To confirm that the panel/antenna location is suitable for radio operation, perform this Test as follows:

**NOTE: You may need to relocate the panel or install an optional extension antenna during this procedure, if radio signal strength is too low.**

1. Confirm that the yellow LED on the Communicator is not flashing. A flashing yellow LED indicates trouble on the Communicator. See Table 6 to troubleshoot and correct the cause of this trouble before continuing to the next step.
2. Observe the strength of the radio signal on the yellow LED and the 2 green LEDs) on the Communicator board meet or exceed the minimum signal level requirement. Minimum Signal Level: The yellow LED is **OFF** and the Green LED 1 **■** (furthest from the yellow LED) is **ON**. (i.e., not flashing) for the panel location to be acceptable. See table for Radio Signal Strength on page 11 for interpretation of receiver GSM signal strength on LEDs.

**NOTE: If the required signal strength is too low with the panel in its current location, it must be relocated or an external antenna is required.**

- a. If required, the following GSM extension antenna kits are available to the installer:
    - GS15-ANTQ - 4.57m (15') Internal Antenna Extension Kit (suitable for interior mounting only).
    - GS25-ANTQ - 7.62m (25') External Antenna Extension Kit (suitable for exterior mounting only).
    - GS50-ANTQ - 15.24m (50') External Antenna Extension Kit (suitable for exterior mounting only).
- Specific instructions for the installation of the extension antenna are included with the kit. Observe all the electrical safety instructions regarding the installation of the antenna. All the wiring of the equipment shall be fully compliant with the local rules and regulations.

3. If required, install the antenna extension and perform the following steps to determine the best location for placement of the antenna :
  - a. Disconnect the white whip antenna from the panel.
  - b. Attach one end of the antenna extension cable to the threaded antenna connector on the panel and the other end to the external antenna.
4. Move the extension antenna to various locations while observing the two Green LEDs on the panel.
  - a. Continue to reposition the extension antenna until you receive an acceptable (minimum one green LED ON solid) signal strength.

**NOTE: Minimum strength is: ■ green LED 1 flashing and ▲ yellow LED OFF. If green LED 1 is flashing, relocation should be considered.**

- b. Mount the supplied antenna extension bracket at the location that provided the best signal strength.
5. Alternately, you can reposition the control panel to improve signal strength. Dismount the panel and move it to another location to achieve the required signal strength. If the panel is relocated to improve signal strength, mount it in the new location.
6. When final location is determined, continue installation at Initial Panel Programming .

## COMMUNICATOR STATUS LEDs

The Communicator has 4 onboard LED indicators. These include 1 yellow trouble LED, 1 red Network Connection Status LED, and 2 green Signal Strength LEDs. The LED meaning is described in this Section.

### ▲Yellow Trouble LED

This yellow LED will flash to indicate a trouble on the unit. The number of flashes indicates the type of trouble. See the table below for the coded flashes and the conditions which will activate the Trouble Status LED.

**Table 4: Yellow Trouble Status LED**

# of Flashes	Trouble	# of Flashes	Trouble
2	Panel Supervision Trouble	8	Receiver Supervision Trouble
4	SIM Lock Trouble	9	FTC Trouble
5	GSM Trouble	10	Configuration Failure
6	Ethernet Trouble	11	Remote Programming
7	Receiver Not Available Trouble	12	Module Configuration Trouble

**NOTE: Only the highest priority trouble (1 Flash is highest priority) is indicated. When this trouble is restored, the next highest trouble will indicate, if present. This will continue until all Troubles have been cleared (yellow LED OFF).**

The following paragraphs describe the conditions associated with the trouble indicated:

#### Panel Supervision Trouble (2 Flashes)

This trouble will be indicated when communication between the Communicator module and the control panel fails. If the module can not communicate with the panel (e.g., loss of power to the panel) the Communicator will send the 'Panel Absent Trouble Event' message to the central station receiver. When communication returns, a 'Panel Absent Restore Event' is sent by the Communicator to the central station receiver. The reporting codes are ET0001 for Trouble and ER0001 for Restore. The panel absent event always uses the primary receiver account code when communicating to the central station.

**NOTE: The Panel Supervision Trouble/Restore is an internally generated event by the Communicator. It is the only internal event; all other events are generated by the control panel. Trouble is generated if the Communicator misses 6 Polls. Trouble is restored on receipt of first Poll from the panel.**

#### SIM Lock Trouble (4 Flashes)

This trouble will signify that the SIM lock feature has been enabled and the unit has not been programmed with the correct PIN for the SIM card.

## GSM Trouble (5 Flashes)

This trouble is indicated for any of the following 4 conditions:

- Radio Failure:** Trouble is indicated after 8 failed attempts to communicate with the GSM radio.
- SIM Failure:** Trouble is indicated after 10 failed +CPIN commands.
- GSM Network Trouble:** Trouble is indicated for loss of the registration to the network provider. (3 consecutive init or refresh failures, failure to connect to an APN, failure to open a socket, total error count in cyclic command = 20, or on receiving an MSDI (1/2), (7/8/14). Trouble will clear after init and cyclic commands succeed and MIPCALL and MIPOpen commands succeed.
- Insufficient Signal Strength:** Trouble is indicated if **calculated average** signal strength is too low. (Both green LEDs OFF). Trouble will clear when the calculated average signal strength is above minimum (i.e., > CSQ 5).

## Ethernet Trouble (6 Flashes)

This trouble is indicated when Ethernet link between the transmitter and the local switch or router is absent. This trouble will also be indicated if the unit fails to get Dynamic Host Control Protocol (DHCP) settings from the DHCP server. (Not active if Ethernet Receivers are not programmed).

## Receiver Not Available (7 Flashes)

This trouble is indicated if the unit is not able to successfully initialize with any of the programmed receivers. Unprogrammed receivers are excluded. This trouble is also indicated if the GPRS receiver APNs have not been programmed in Sections [205] and [215].

## Receiver Supervision Trouble (8 Flashes)

This trouble is indicated when receiver supervision is enabled and communication between the Communicator module and the receiver fails. Trouble is indicated if Ethernet 1 is supervised and does not receive a heartbeat from the receiver or if GPRS is supervised and the unit does not receive an acknowledgment to 4 heartbeats sent to the receiver.

## FTC Trouble (9 Flashes)

This trouble is indicated when the unit fails to communicate module events to the central station. Trouble is displayed after the unit has exhausted all communications attempts to all programmed receivers for events generated by the Communicator.

## Configuration Failure (10 Flashes)

This trouble is indicated when the unit fails to receive remote programming.

## Remote Programming (11 Flashes)

This trouble is indicated during a remote firmware upgrade. Indicates that a remote firmware update is in progress over GPRS/Ethernet. Trouble will clear automatically when update completes successfully.

## Module Configuration Trouble (12 Flashes)

This trouble is indicated when the System Account Code or the Receiver Account have not been programmed. Disabled receivers are excluded.

## Red Network Connection Status LED

(TL260-RS/TL260GS-RS)

**BLINKING:** Indicates communications in progress.

- Once quickly for outgoing Ethernet transmission.
- Twice quickly to indicate incoming Ethernet ACK/NACK.

**OFF:** This is the normal state of the Red Network Connection Status LED. There are no network connection issues present.

**ON:** There is a problem with the Ethernet or the GPRS network connection. LED will be ON if any of the following occur:

- Ethernet cable is not connected,
- DHCP configuration times out,
- Unit fails to get an IP address from the GPRS network, or
- GPRS connection has been reset.

## (Green LED 1) (Green LED 2) and (Yellow LED) Signal Strength

**NOTE:** If the yellow LED is flashing, Signal Strength in table below is not valid.

See Table 6 for troubleshooting flashing yellow LED.

Table 5: Radio Signal Strength

Signal Strength	CSQ Level	Yellow LED	Green Led 2	Green LED 1	Signal Level dBm	Action Required
No Signal	0	ON	OFF	OFF	-108.8	<ul style="list-style-type: none"> <li>Check all antenna connections.</li> <li>Confirm GSM service is active in area.</li> <li>Relocate panel or install external antenna.</li> </ul>
1 Bar	1 - 4	ON	OFF	Flashing	-108 ~ -103	Relocate panel or install external antenna
2 Bars	5 - 6	OFF See Note	OFF	Flashing	-102 ~ -99	Relocate panel or install external antenna if Yellow GSM Trouble LED has: <b>5 flashes.</b>
3 Bars	7 - 10	OFF	OFF	ON	-98 ~ -91	Location is OK. GSM Signal Strength is greater than CSQ 6
4 Bars	11-13	OFF	Flashing	ON	-90 ~ -85	
5 Bars	14 +	OFF	ON	ON	-84 and higher	

**NOTE:** The Communicator will indicate GSM Trouble (yellow LED = 5 flashes) if the average CSQ Level is 5 or less. The Communicator Signal Strength can be viewed remotely.

## Network Activity LEDs (Red and Green)

(TL260GS-RS only)

**Ethernet Activity:** Red LED will blink quickly once for Ethernet Transmit, or twice for Ethernet Receive.

**GPRS Activity:** Green LED 2 will blink quickly once for GPRS Transmit, or twice for GPRS Receive.

## Network Link LED (Yellow)

(TL260-RS only) See Figure 3.

The TL260-RS uses an additional Link LED on the board. LED is lit to indicate an active Ethernet connection.

# COMMUNICATOR RESET / UPDATE

## Factory Defaults Reset

You can reset the programming options for the Communicator to the factory settings by installing the hardware jumper. Perform the following steps to reset the Communicator:

**NOTE: A jumper is required on AUDIO/DEFAULT pins 4 and 5 to reset the hardware values.**

1. Remove panel front cover.
2. Locate the AUDIO/DEFAULT 5 pin connector in the middle of the Communicator board. On the PC1616/1832/1864 panels pins 4 and 5 are on top. (See **Figure 3**).
3. Apply a jumper to short the hardware default pins 4 and 5.
4. Remove all power from the panel and then apply power to the panel. Wait until the two green LEDs on the Communicator begin flashing rapidly.
5. Remove the jumper from the hardware default pins 4 and 5. (Green LEDs will stop flashing).

**NOTE: Your Communicator has now been reset to the factory default values.**

## Firmware Update

The firmware of the device can be updated over GPRS or Ethernet (Remote or Local updating):

- When the firmware update begins, all LEDs are ON.
- During the firmware update process, the LEDs will be cycled individually in a chaser pattern.
- After a successful update, the unit will automatically restart.
- Should the update fail, all 4 LEDs will flash ON, then OFF together at 1 second intervals.

**NOTE: If the firmware update fails, restart the unit. For persistent update failures, contact your dealer.**

## APPENDIX A: COMMUNICATOR TROUBLESHOOTING

**Table 6: Trouble LED indications**

Trouble indication	Possible Causes	Trouble Possible Solution
No Indication	No Power	<ul style="list-style-type: none"> <li>Check the power connections between the control panel and the Communicator. See Figure 3.</li> <li>Confirm PC-LINK cable is properly installed between communicator and panel.</li> </ul>
Yellow LED – ON Solid	Insufficient Signal Strength	<ul style="list-style-type: none"> <li>Confirm that GSM network service is active in your area.</li> <li>Ensure the antenna is securely connected to the GSM radio. Check antenna stub cable is securely connected to the GSM radio.</li> <li>If an external antenna is used ensure the antenna is securely screwed on to the antenna cable connector. Check external antenna for damage or open/short.</li> </ul>
Trouble LED – 2 Flashes	Panel Supervision Trouble	<ul style="list-style-type: none"> <li>Check Section [382]Toggle Option[5] is ON.(GPRS/Ethernet Module Enabled)</li> <li>Ensure the PC-LINK cable between the control panel and Communicator is connected properly (not reversed) and is securely in place.</li> </ul>
Yellow LED - 4 Flashes	Lockout Trouble	<ul style="list-style-type: none"> <li>The SIM card has incorrect PIN programmed or has a PIN that the module does not recognize. Replace the SIM card.</li> </ul>
Yellow LED – 5 Flashes	GSM Trouble	<ul style="list-style-type: none"> <li>Confirm that GSM service is available and active in your area.</li> <li>Check all antenna connections.</li> <li>Ensure <b>average</b> radio signal strength is CSQ <b>6</b> or higher. (See Table 5 ).</li> <li>Ensure the SIM card is properly inserted into the SIM card holder.</li> <li>Ensure the SIM card has been activated.</li> <li>If this trouble persists, you must relocate the Panel (and communicator) or install an external antenna extension kit.</li> </ul>
Yellow LED – 6 Flashes	Ethernet Trouble	<ul style="list-style-type: none"> <li>Check with your ISP to confirm Internet service is active in your area.</li> <li>Ensure your Ethernet cable is securely inserted into the RJ45 jack of the Communicator and the Hub/Router/ Switch.</li> <li>Check the link light on the Hub/Router/ Switch is ON . If link light is OFF, try restarting the Hub/Router/ Switch.</li> <li>If DHCP is used, ensure that the unit has an assigned IP address from the server. In Panel Section [851] [992] verify a valid IP address is programmed. If not contact the Network administrator.</li> <li>If problem persists, replace the Ethernet cable and RJ45 connector.</li> </ul>
Yellow LED – 7 Flashes	Receiver Not Available	<ul style="list-style-type: none"> <li>Ensure that the Ethernet path has internet connectivity.</li> <li>If you are using a static IP address make sure the gateway and subnet mask are entered correctly.</li> <li>If the network has a firewall, ensure the network has the programmed outgoing ports open (Default UDP Port 3060 and Port 3065).</li> <li>Ensure that all the receivers are programmed for DHCP or have the proper IP address and port number.</li> <li>Ensure the GPRS Receiver APNs have been programmed with the Access Point Name provided by your GSM provider.</li> </ul>
Yellow LED – 8 Flashes	Receiver Supervision Trouble	<ul style="list-style-type: none"> <li>This trouble is indicated when supervision is enabled and the unit is not able to successfully communicate with the receiver.</li> <li>If this trouble persists, contact your central station.</li> </ul>
Yellow LED - 9 Flashes	FTC Trouble	<ul style="list-style-type: none"> <li>The unit has exhausted all communications attempts to all programmed receiver for events generated by the Communicator.</li> <li>Restart the system, if trouble persists, contact your dealer.</li> </ul>
Yellow LED – 10 Flashes	Connect 24 Configuration Failure	<ul style="list-style-type: none"> <li>This trouble is indicated when the SIM is active but there is no programming for the unit.</li> <li>Ensure a profile has been programmed in Connect 24 for the SIM.</li> <li>You can confirm your programming by calling the Connect 24 VRU, or by logging into the Connect 24 VRU web site.</li> </ul>
Yellow LED – 11 Flashes	Remote Programming	<ul style="list-style-type: none"> <li>The LEDs will flash when a remote firmware upgrade is in progress over Ethernet or GPRS. The LEDs will extinguish when update is complete.</li> <li>The LEDs will flash to indicate a remote programming session is active over Ethernet or GPRS. The LEDs will extinguish when the session terminates.</li> </ul>
Yellow LED – 12 Flashes	Module Configuration Trouble	<p>This indication appears when Section [021] System Account Code or Section [101]; [111]; [201]; and [211] Receiver Account Code have not been programmed. Ensure that a valid account code has been entered in these Sections.</p>
All LEDs flashing together	Boot Loader Failed	<p>Disconnect power, then reconnect power to the Communicator module.</p>
Red and Yellow LEDs flashing together	Initialization Sequence	<p>The unit is still initializing please wait while the unit gets its programming and establishes a connection to all programmed receivers. Note that this process may take several minutes.</p>
Only Green LEDs flashing	Hardware Default Jumper	<p>The hardware default jumper must be removed. See Figure 3.</p>

## ETHERNET/GPRS PROGRAMMING SECTIONS

The Programming Sections in this document are accessed via panel Section for Ethernet/GPRS Programming. Enter: [\*][8][installer code][851][###]. Where ### is the 3 digit Section number referenced in this document. The Programming Worksheets at the end of this document can be used to record the new values when programming changes have been made from the default values. Default values are provided for each Section.

Programming Sections can not be modified from the keypad. Installers may review/record programming Options at the keypad.

**NOTE: Ethernet/GPRS Programming Sections accessed through the panel are for display purposes only. Configuration changes must be done remotely. Specified panel Sections must be configured for proper operation of the Communicator and the panel.**

### System Options

#### [001] Ethernet IP Address

Default (000.000.000.000)

Enter the IP address of the dual Communicator. Ensure that the IP address is unique to your Communicator on the local network. Format is 4 fields, each field is a 3 digit decimal number. Valid range: 000-255. If an IP address is programmed in this Section, the unit will operate with Static IP (DHCP disabled). Sections [002] and [003] must also be programmed when using Static IP addresses.

**NOTE: Default for this Section is Dynamic Host Configuration Protocol (DHCP) enabled. When enabled, the DHCP Server will set values for: IP Address [001], Subnet Mask [002], and Gateway [003]. Programming an IP address in this Section will disable DHCP (Static IP).**

#### [002] Ethernet IP Subnet Mask

Default (255.255.255.000)

Enter the Ethernet IP Subnet Mask of the dual Communicator. Format is 4 fields, each field is a 3 digit decimal number. Valid range: 000-255.

**NOTE: If DHCP is enabled, the DHCP Server will assign the subnet mask for this Section and the programmed value will be ignored.**

#### [003] Ethernet Gateway IP Address

Default (000.000.000.000);

Enter the Ethernet Gateway IP address of the dual Communicator. The gateway IP address is required when a router is used on the local network to reach the destination IP address specified in Section [001]. Format is 4 fields, each field is a 3 digit decimal number. Valid range: 000-255.

**NOTE: If DHCP is enabled, the DHCP Server will assign the Gateway IP address for this Section and the programmed value will be ignored.**

#### [004] Receiver Supervision Interval

Default (0087/135)

When receiver supervision is enabled (ON) in Section [005] Toggle Option [3], the unit sends heartbeats to Ethernet Receiver 1 or GPRS Receiver 1 to test the communication path. Use this Section to set the interval time (in seconds) when heartbeats will be sent. Valid range 000A-FFFF seconds. If the programmed value is less than (000A/10) seconds, supervision is disabled.

Table 7: Supervision Intervals for UL/ULC

Jurisdiction	Receiver Window (Timeout)	Recommended Supervision Interval
UL Commercial Burglary	200 seconds	(0087/135) seconds
UL Residential Fire	30 days	Panel Test Transmission
UL Residential Burglary	30 days	Panel Test Transmission
ULC Commercial Burglary Active	180 seconds	(005A/90) seconds
ULC Commercial Burglary Passive	24 hours	Panel Test Transmission
ULC Commercial Fire Active	180 seconds	(0073/115) seconds
ULC Commercial Fire Passive	24 hours	Panel Test Transmission

- **Receiver Window:** This is the supervision timeout that needs to be configured at the central station receiver.
- **Recommended Values:** This is the recommended heartbeat interval that should be programmed into the Communicator module.
- For ULC passive systems (not using heartbeat supervision), the daily test transmission must be enabled over each available communication channel Section [125] and [225]. When programming with Connect24, the recommended intervals will be programmed automatically when the required window is selected.

### [005] System Toggle Options

#### [1] Ethernet Receiver 1 Supervised

Default (OFF) (TL260-RS/TL260GS-RS only).

**ON:** Ethernet Receiver 1 will be supervised and heartbeats will be sent to Ethernet Receiver 1 based on the supervision interval programmed in Section [004].

**OFF:** Ethernet Receiver 1 will not be supervised. When disabled, heartbeat 1 is sent to the Ethernet receiver once every hour, regardless of supervision type (heartbeat 1 or 2). The heartbeat is resent every 5 seconds until ACK. If no event or heartbeat ACK is received after (Receiver Supervision Interval + 75 seconds), Supervisory trouble is indicated.

**NOTE: Ethernet Receiver 2 can not be supervised.**

#### [2] GPRS Receiver 1 Supervised

Default (OFF)

**ON:** GPRS Receiver 1 will be supervised and heartbeats will be sent to GPRS Receiver 1 based on the supervision interval programmed in Section [004]. If ACK to heartbeat is not received, it is retransmitted every 5 seconds. Failure to ACK 2 consecutive heartbeats will reset the radio.



**OFF:** GPRS Receiver 1 will not be supervised. When disabled, heartbeat is not sent to the receiver.

**NOTE:** *GPRS Receiver 2 can not be supervised.*

### [3] Supervision Type

Default (OFF)

**ON:** Heartbeat 1 (Commercial Supervision). This supervision type is suitable for applications where swap detection is required on the supervisory packet.

**OFF:** Heartbeat 2 (Residential Supervision). This supervision type is suitable for applications where supervision of the communication path to the receiver is required. (no swap detection).

**NOTE:** *Commercial supervision is more data intensive than residential supervision and should only be used when required to meet the approval for the installation.*

### [4] GSM Primary

Default (OFF - TL260-RS/TL260GS-RS) (ON - GS2060-RS)

**ON:** GPRS channel is the primary path. Ethernet channel is the secondary path, if it exists.

**OFF:** Ethernet channel is the primary path in a dual Communicator. GPRS channel is the secondary path.

**NOTE:** *When the Communicator receives a Short Message Service (SMS) request it will always use the primary path first. If the primary path fails, it will use the secondary path.*

### [5] Redundant Communications

Default (OFF) (TL260GS-RS only)

**ON:** Events will be communicated to Ethernet Receiver 1 and GPRS Receiver 1 at the same time. Events will be communicated to Ethernet Receiver 2 and GPRS Receiver 2 at the same time. As long as the event is successfully communicated to 1 of the 2 paths (Ethernet or GPRS) the Communicator will move on to the next event.

**NOTE:** *Do not configure Ethernet Receiver 1 and GPRS Receiver 1 to communicate using a common receiver configuration (i.e., identical Receiver IP address and Receiver Remote Port).*

**OFF:** Events will be communicated to the receivers individually.

**NOTE:** *This Toggle should be OFF for applications where guaranteed message delivery to both receivers is required.*

### [6] Remote Firmware Upgrade

Default (ON)

**ON:** The Communicator module firmware can be remotely upgraded using the Ethernet/GPRS paths.

**OFF:** The Communicator module firmware can not be remotely upgraded. Local firmware upgrade is still possible.

### [7] Alternate Test Transmissions Default (OFF).

**ON:** When the periodic test transmission interval occurs, the test transmission will alternate between being sent to the primary and secondary receivers with each test transmission interval.

**OFF:** When the periodic test transmission interval occurs, the test transmission will be sent to the programmed receivers, based on the settings of the periodic test transmission reporting codes.

### [8] GSM Low Signal Trouble. Default (OFF).

## [006] System Toggle Options 2

### [1] Ethernet 1 Receiver Enabled. Default (ON) [OFF for GS2060-RS]

**ON:** Ethernet Receiver 1 is enabled.

**OFF:** Ethernet Receiver 1 is disabled.

### [2] Ethernet 2 Receiver Enabled. Default (ON) [OFF for GS2060-RS]

**ON:** Ethernet Receiver 2 is enabled.

**OFF:** Ethernet Receiver 2 is disabled.

### [3] Reserved. (OFF).

### [4] GPRS 1 Receiver Enabled. Default (ON).

**ON:** GPRS Receiver 1 is enabled.

**OFF:** GPRS Receiver 1 is disabled.

### [5] GPRS 2 Receiver Enabled. Default (ON).

**ON:** GPRS Receiver 2 is enabled.

**OFF:** GPRS Receiver 2 is disabled.

### [6] Reserved (OFF).

### [7] DLS Over GPRS. Default (ON).

**NOTE:** *Program this toggle as OFF if you want to completely disable DLS from using the GPRS path.*

**ON:** DLS is enabled on the GPRS path.

**OFF:** DLS is disabled on the GPRS path.

**NOTE:** *If Toggle Option [7] is OFF, DLS sessions will occur on the Ethernet path only, regardless of Primary Path set in Section [005] Toggle Option [4]. If it is ON then the Communicator will connect to the primary path first for DLS and if the session fails, the secondary path will be used.*

### [8] Interactive Over GPRS. Default (ON).

## [007] DNS Server IP 1

Default (000.000.000.000)

① Programming this Section is **not** permitted on a UL/ULC listed system.

Enter the IP address for DNS Server 1. Format is 4 fields, each field is a 3 digit decimal. Valid range: 000-255.

**NOTE:** *If no value is programmed and DHCP is used, the DHCP Server will configure the address. If an address is programmed and DHCP is used, the address that you program will be used instead of the DHCP address.*

## [008] DNS Server IP 2

ⓘ Programming this Section is **not** permitted on a UL/ULC listed system.

Default (000.000.000.000)

Enter the IP address for DNS Server 2. Format is 4 fields, each field is a 3 digit decimal. Valid range: 000-255.

**NOTE: If no value is programmed and DHCP is used, the DHCP Server will assign this value. If an address is programmed and DHCP is used, the address that you program will be used instead of the DHCP address.**

## [009] Language

Default (01)

Table 8: Programming Label Languages

OPT	Language	OPT	Language	OPT	Language	OPT	Language
00	Reserved	08	Czech	16	Turkish	24	Lithuanian
01	English	09	Finnish	17	Reserved	25	Ukrainian
02	Spanish	10	German	18	Croatian	26	Slovak
03	Portuguese	11	Swedish	19	Hungarian	27	Serbian
04	French	12	Norwegian	20	Romanian	28	Estonian
05	Italian	13	Danish	21	Russian	29	Slovenian
06	Dutch	14	Hebrew	22	Bulgarian	30 - 99	Reserved
07	Polish	15	Greek	23	Latvian		

**NOTE: Immediately after programming this Section, perform a Default Languages in Section [999][11] to have programmable labels available in the selected language. Programming this Section with an invalid language number will default to English [01]. Connect24 will automatically update all programmable language labels when this Section is changed.**

## [010] System Toggle Options 3

Default (OFF)

[1] Two way Audio over GSM.

**ON:** Two way audio over the GSM Voice channel is enabled.

**OFF:** Two way audio over the GSM Voice channel is disabled.

[2]-[8] Reserved. Default (OFF)

## Programming Options

### [011] Installer Code

Default (CAFE)

Program your installer code for this Communicator module. The installer code will be required when programming the Communicator module. Valid range: 0000 - FFFF.

### [012] DLS Incoming Port

Default (0BF6/3062);

The DLS Incoming Local Port (listening port) is the port DLS IV will use when connecting to the Communicator. If a router or gateway is used, it must be programmed with a Transmission Control Protocol (TCP) port forward for this port to the Communicator module IP address. Valid range: 0000-FFFF.

### [013] DLS Outgoing Port

Default (0BFA/3066)

The DLS Outgoing Port is used for outgoing session to DLS IV after an SMS request has been sent to the Communicator. Use this Section to set the value of the local outgoing port. The value must be changed if the Communicator is located behind a firewall and must be assigned a particular port number, as determined by your network administrator. In most cases, changing the default value or configuring your firewall with this port is not required. Valid range: 0000-FFFF.

**NOTE: If Section [006] Toggle Option [7] is ON, DLS will use the primary path for session. If Section [006] Toggle Option [7] is OFF DLS will use the Ethernet path, if available.**

## [020] Time Zone

Default (00)

Use **Offset Hours** column to find your local time zone offset from GMT/UTC. Record the two digit HEX value from the **HEX** column on same row. Program this HEX value as your Time Zone. Valid range is 00 - FF.

Table 9: Time Zone Offset

HEX	Offset Hours	Std Abbrev	Location	HEX	Offset Hours	Std Abbrev	Location
01	-12	BIT	Baker Island Time	47	+5.5	IST	Indian Standard Time
05	-11	NUT	Niue Time	49	+6	NPT	Nepal Time
		SST	Somoa Standard Time			XJT	Xinjiang Standard Time
09	-10	HAST	Hawaii-Aleutian Standard Time			EKST	East Kazakhstan Standard Time
		THAT	Tahiti Time			LKT	Sri Lanka Time
		TKT	Tokelau Time			VOST	Vostok Time
		CKT	Cook Island Time			OMSK	Omsk Standard Time
0B	-9.5	MIT	Marquesas Island Time			NOVT	Novosibirsk Time
0D	-9	AKST	Alaska Standard Time			BTT	Bhutan Time
		GIT	Gambier Island Time			BIOT	British Indian Ocean Time

**Table 9: Time Zone Offset (Continued)**

HEX	Offset Hours	Std Abbrev	Location	HEX	Offset Hours	Std Abbrev	Location
11	-8	PST	Pacific Standard Time	4B	+6.5	CCT	Cococ Islands Time
		PST	Pitcarin Standard Time			MMT	Myanmar Time
		CIST	Clipperton Island Standard Time			CXT	Christmas Island Time
15	-7	MST	Mountain Standard Time	4D	+7	KOVT	Khovd Time
19	-6	CST	Central Standard Time			KRAT	Krasnoyarsk Time
		GALT	Galapagos Time			WIB	Waktu Indonesia Bagian Barat
		PIT	Peter Island Time			ICT	Indochina Time
		EAST	Easter Island Standard Time	BDT	Bangladesh Standard Time		
1D	-5	EST	Eastern Standard Time	AWST	Australian Western Standard Time		
		COT	Colombia Time	CST	China Standard Time		
		ECT	Ecuador Time	HKST	Hong Kong Standard Time		
		PET	Peru Time	WITA	Waktu Indonesia Bagian Tengah		
		ACT	Acre Time	TWT	Taiwan Time		
1F	-4.5	VST	Venezuela Standard Time	51	+8	SST	Scarborough Shoal Time
21	-4	AST	Atlantic Standard Time			SIT	Spratty Island Time
		CLST	Chile Standard Time			SGT	Singapore Time
		BWST	Brazil Western Standard Time			PST	Philippine Standard Time
		SLT	San Luis Time			PIT	Pratas Islands
		PYT	Paraguay Time			PIT	Parcel Island Time
		JFST	Juan Fernandez Island Standard Time			MYT	Malaysia Time
		GYT	Guyana Time			MNT	Mongolia Time
		FKST	Falkland Island Standard Time			MBT	Macclesfield Bank Time
23	-3.5	NST	Newfoundland Standard Time			IRKT	Irkutsk Time
25	-3	CGT	Central Greenland Time	BDT	Brunei Time		
		ART	Argentina Time	ACIT	Ashmore and Cartier Island Time		
		BRT	Brazilia Time	52	+8.25	APO	Apo Island Time
		UYT	Uruguay Standard Time	54	+8.75	ACWST	Australian Central Western Standard Time
		SRT	Suriname Time	YAKT	Yakutsk Time		
		ROTT	Rothera Time	JST	Japan Standard Time		
		PMST	St. Pierre & Miquelon Standard Time	KST	Korea Standard Time		
GFT	French Guiana Time	WIT	Waktu Indonesia Bagian Timur				
29	-2	GST	South Georgia and the South Sandwich Islands	TPT	East Timor Time		
		BEST	Brazil Eastern Standard Time	PWT	Palau Time		
2D	-1	EGT	Eastern Greenland Time	57	+9.5	ACST	Australian Central Standard Time
		CVT	Cape Verde Time			AEST	Australian Eastern Standard Time
		AZOST	Azores Standard Time			GST	Guam Standard Time
31	0	WET	Western European Time	YAPT	Yap Time		
		GMT	Greenwich Mean Time (UTC)	VLAT	Vladivostok Time		
		SLT	Sierra Leone Time	TRUT	Truk Time		
		IST	Ireland Standard Time	PGT	Papua New Guinea Time		
35	+1	CET	Central European Time	DTAT	District de Terre Adelle Time		
		WAT	Western Africa Time	ChST	Chamorro Standard Time		
		BST	British Summer Time	5B	+10.5	LHST	Lord Howe Standard Time
39	+2	EET	Eastern European Time	KOST	Kosare Standard Time		
		CAT	Central Africa Time	NCT	New Caledonia Time		
		SYT	Syrian Standard Time	VUT	Vanuatu Time		
		SAST	South Africa Standard Time	SBT	Solomon Island Time		
		IST	Israel Standard Time	PONT	Phonpei Standard Time		
				5D	+11	MAGT	Magadan Island Time

**Table 9: Time Zone Offset (Continued)**

HEX	Offset Hours	Std Abbrev	Location	HEX	Offset Hours	Std Abbrev	Location
3D	+3	MSK	Moscow Standard Time	5F	+11.5	NFT	Norfolk Island Time
		EAT	Eastern Africa Time			NZST	New Zealand Standard Time
		AST	Arabic Standard Time			FJT	Fiji Time
		AST	Arabia Standard Time			WFT	Wallis and Futuna Time
		AST	Al Manamah Standard Time			TVT	Tuvalu Time
3F	+3.5	IRST	Iran Standard Time	61	+12	PETT	Petropavlovsk Time
41	+4	AMST	Armenia Standard Time			NRT	Nauru Time
		SCT	Seychelles Time			MHT	Marshall Island Time
		GST	Gulf Standard Time			GILT	Gilbert Island Time
		SAMT	Samara Time			ANAT	Anadyr Time
		RET	Reunion Time	64	+12.75	CHAST	Chatham Island Standard Time
		MUT	Mauritius Time	65	+13	PHOT	Phoenix Island Time
		ICT	Iles Crozet Time			TOT	Tonga Time
		GET	Georgia Standard Time	69	+14	LINT	Line Island Time
AZT	Azerbaijan Time	70 - FF		Reserved			
43	+4.5	AFT	Afghanistan Time				
45	+5	CAST	Chinese Atlantic Standard Time				
		WKST	West Kazakhstan Standard Time				
		PKT	Pakistan Time				
		YEKT	Yekaterinburg Time				
		UZT	Uzbekistan Time				
		TMT	Turkmenistan Time				
		TJT	Tajikistan Time				
		TFT	French Southern and Antarctic Time				
		MVT	Maldives Time				
		MAWT	Mawson Time				
		KGT	Kyrgyzstan Time				
		HMT	Heard and McDonald Island Time				
		DAVT	Davis Time				

**[021] Account Code**

Default (FFFFFF)

The account code is included when transmitting any events generated by the Communicator. (e.g., Panel Absent Trouble). It is recommended that the account code be the same as the control panel account number. Valid range: 000001-FFFFFF. If 4 digit account codes are needed the 2 lowest digits shall be programmed as FF; (e.g., Account 1234 is programmed as:1234FF). Programming this Section as all 0 or all F will cause a Module Configuration Trouble (yellow LED=12 flashes).

**[022] Communications Format**

Default (04)

Program 03 for CID. Program 04 for SIA. The module can be configured to send Communicator Events in SIA or CID format. The SIA communication format follows the level 2 specifications of the *SIA Digital Communication Standard - October 1997*. This format will send the account code along with its data transmission. The transmission will look similar to the following at the receiver: **Nri0 ET001**

Where: **N** = New Event; **ri0** = Partition/Area identifier; **ET** = Panel Absent Trouble; **001** = Zone 001.

**Communications Reporting Codes**

**Table 10: Communications Reporting Codes**

Event	SIA Identifier	SIA Reporting Code	CID Qualifier	CID Event Code	CID Reporting Code	CID User/Zone
[023] Panel Absent Trouble	ET	001	1	3	55	001
[024] Panel Absent Trouble Restore	ER	001	3	3	55	001
[025] Radio Activation Restore	RS	001	3	5	52	001
[026] Ethernet 1 Test Transmission	RP	001	1	6	A3	951
[027] Ethernet 2 Test Transmission	RP	002	1	6	A3	952
[028] GPRS 1 Test Transmission	RP	003	1	6	A3	955
[029] GPRS 2 Test Transmission	RP	004	1	6	A3	956
[030] FTC Restore	YK	001	3	3	54	001

**[023] Panel Absent Trouble**

Default (FF)

Program 00 to disable this event or FF to enable. This event will occur when communications with the panel have been lost for more than 60 seconds.

## [024] Panel Absent Trouble Restore

Default (FF)

Program 00 to disable this event or FF to enable. This event will occur when communications with the control panel have resumed.

## [025] Radio Activation Restore

Default (FF)

Program 00 to disable this event or FF to enable. This event will occur after any successful Connect24 programming session.

## System Test Options [026 - 029]

### Test Transmissions to Primary Receiver, with Backup to Secondary Receiver:

Set Ethernet Section [026] to (FF); [027] to (00). Set GPRS Section [028] to (FF); [029] to (00).

- If the test transmission fails to the primary receiver it will backup to the secondary receiver.
- If the test transmission fails to the secondary receiver an FTC trouble will be generated.

### Test Transmission Unique to Primary and Secondary Receivers:

Set Ethernet Section [026] to (FF); [027] to (FF). Set GPRS Section [028] to (FF); [029] to (FF).

- The module will send periodic test transmissions to each receiver independently, with no backups.
- If the test transmission fails to any of the programmed receivers, an FTC trouble will be generated.

### Alternate Test Transmission

Alternate Test Transmission can be enabled or disabled in Section [005] Toggle Option [7].

## [026] Ethernet 1 Transmission

Default (FF)

Program 00 to disable this event transmission or FF to enable. See System Test Options (above) for details on settings.

## [027] Ethernet 2 Transmission

Default (00)

Program 00 to disable this event transmission or FF to enable. See System Test Options (above) for details on settings.

## [028] GPRS 1 Transmission

Default (FF)

Program 00 to disable this event transmission or FF to enable. See System Test Options (above) for details on settings.

## [029] GPRS 2 Transmission

Default (00)

Program 00 to disable this event transmission or FF to enable. See System Test Options (above) for details on settings.

**NOTE: The time interval (in minutes) between periodic tests is programmed in Section [125] (Ethernet) and Section [225] (GPRS).**

## [030] FTC Restore

Default (FF)

Program 00 to disable this event transmission or FF to enable. This event will occur when an FTC Trouble on the system restores.

## [031] Panel Tamper Alarm

Default (FF)

This event will occur when a Panel Tamper is detected during the Entry Delay time. The panel shall notify the communicator immediately, creating a Priority Tamper Alarm condition. Setting this option to 00 will disable monitoring of this condition. See Table 11 for SIA and CID reporting codes. Program 00 to disable this event transmission or FF to enable event transmission.

**Table 11: Panel Tamper Reporting Codes**

Event	SIA Identifier	SIA Reporting Code	CID Qualifier	CID Event Code	CID Reporting Code	CID User/Zone
Panel Tamper	ES	001	1	1	45	001
Panel Tamper Restore	EJ	001	3	1	45	001

## [032] Panel Tamper Alarm Restore

Default (FF)

Program 00 to disable this event transmission or FF to enable. This event will occur when a Panel Tamper event on the system restores. See Table 11 for SIA and CID reporting codes.

## Ethernet Receiver 1 Options

### [101] Ethernet Receiver 1 Account Code

Default (000000000)

The account code is used by the central station to distinguish between transmitters. This account code is used when transmitting heartbeat signals to the central station receiver. Signals received from the control panel will use the control panel account number. Valid range: 000000001-FFFFFFFFFE.

Programming this Section as all 0 or all F will cause a Module Configuration Trouble (yellow LED=12 flashes).

**NOTE: If Ethernet Receiver 1 and GPRS Receiver 1 are programmed as the same receiver (IP and port number are identical), Ethernet Receiver 1 account code will be used.**

## [102] Ethernet Receiver 1 DNIS

Default (000000)

The Dialed Number Information Service (DNIS) is used in addition to the Account Code to identify the Communicator module at the central station. Valid range: 000000 - 099999. Value is entered as a leading 0 followed by the 5 digit DNIS. Format is Binary Coded Decimal (BCD).

**NOTE: Each Ethernet/GPRS receiver must be programmed with a unique DNIS.**

## [103] Ethernet Receiver 1 Address

Default (127.000.000.001)

The default address enables the Communicator to operate in **Unattended Mode**.

Unattended Mode is used when a receiver is not available and the unit is required to perform DLS sessions. Typically used where the customer programs the control panel daily due to access control and still wants to receive alarms without buying extra hardware (receiver) or software.

**NOTE: When a valid IP address has been programmed, Ethernet Receiver 1 is enabled and will communicate events over the Ethernet channel.**

Ethernet Receiver 1 and GPRS Receiver 1 may be configured to communicate to the same central station receiver. To configure the device to operate using this Common Receiver Mode functionality, program Ethernet Receiver 1 and GPRS Receiver 1, IP address and port number with identical values.

**NOTE: When operating in Common Receiver Mode, Ethernet Receiver 1 account code will be used for Ethernet and GPRS.**

## [104] Ethernet Receiver 1 Remote Port

Default (0BF5/3061)

This Section determines the remote port of Ethernet receiver 1. Valid range: 0000 - FFFF.

## [105] Ethernet Receiver 1 Local Port

Default (0BF4/3060)

Use this Section to set the value of the local outgoing port. Set the value of this port when your installation is located behind a firewall and must be assigned a particular port number as determined by your central station system administrator. Valid range: 0000 - FFFF.

## [106] Ethernet Receiver 1 Domain Name

Default ()

Enter the Domain Name as 32 ASCII characters.

**ⓘ** Programming this Section is **not** permitted on a UL/ULC listed system.

## Ethernet Receiver 2 Options

### [111] Ethernet Receiver 2 Account Code

Default (0000000000)

The account code is used by the central station to distinguish between transmitters. The account code is used when transmitting heartbeat signals to the central station receiver. Signals received from the control panel will use the control panel account number. Valid range: 0000000001- FFFFFFFF.

Programming this Section as all 0 or all F will cause a Module Configuration Trouble (yellow LED=12 flashes).

**NOTE: If both Ethernet Receiver 2 and GPRS Receiver 2 are the same receiver (IP and port number are identical), Ethernet Receiver 2 account will be used for Ethernet and GPRS.**

### [112] Ethernet Receiver 2 DNIS

Default (000000)

The DNIS is used in addition to the account code to identify the Communicator module at the central station. Valid range: 000000 - 099999. Value is entered as leading 0 followed by the 5 digit DNIS. Format is BCD.

**NOTE: Each Ethernet/GPRS receiver must be programmed with a unique DNIS.**

### [113] Ethernet Receiver 2 Address

Default (000.000.000.000)

Programming the Ethernet receiver 2 IP address with 000.000.000.000 will disable Ethernet.

Enter the Ethernet receiver 2 IP address. This address will be provided by your central station system administrator. Format is 4 fields, each field is a 3 digit decimal. Valid range: 000-255.

**NOTE: When a valid IP address has been programmed, Ethernet Receiver 2 is enabled and will communicate events over the Ethernet channel.**

Ethernet Receiver 2 and GPRS Receiver 2 may be configured to communicate to the same central station receiver. To configure the device to operate using this common receiver mode functionality, program the Ethernet Receiver 2 and GPRS Receiver 2, IP address and port number with the same values. When operating in common receiver mode the Ethernet Receiver 2 account code will be used for communications over Ethernet and GPRS.

**NOTE: Do not program Ethernet Receiver 1 and Ethernet Receiver 2 to communicate to the same receiver.**

### [114] Ethernet Receiver 2 Remote Port

Default (0BF5/3061)

This Section is used to program the port number used by Ethernet Receiver 2. Set the value of this port when your installation is located behind a firewall, and must be assigned a particular port number as determined by your central station system administrator. Valid range: 0000 - FFFF.

**NOTE: Do not program Ethernet Receiver 1 and Ethernet Receiver 2 Port with the same value.**

### [115] Ethernet Receiver 2 Local Port

Default (0BF9/3065);

Use this Section to program the value of the local outgoing port. You can set the value of this port when your installation is located behind a firewall and must be assigned a particular port number as determined by your network administrator. Valid range: 0000 - FFFF.

**NOTE: Do not program Ethernet Receiver 1 and Ethernet Receiver 2 Port with the same value.**

## [116] Ethernet Receiver 2 Domain Name

Default ( )

ⓘ Programming this Section is **not** permitted on a UL/ULC listed system.

Enter the Domain Name as 32 Character ASCII.

### Ethernet Options

## [124] Ethernet Test Transmission Time

Default (9999)

Enter a 4 digit number (0000-2359) using the 24-hour clock format (HHMM) to set the test transmission time of day. Valid range: 00 - 23 hours (HH) and 00 - 59 minutes (MM). Programming a value of (9999) will disable the test transmission time.

**NOTE: The internal date and time will automatically be programmed when the unit communicates with the primary receiver.**

## [125] Ethernet Test Transmission Cycle

Default (000000)

This value represents the interval between test transmissions, in minutes. Valid range: 000000 - 999999 minutes. Once the unit has sent the initial periodic test transmission, all future test transmissions will be offset by the programmed number of minutes. See Sections [026-029].

Table 12: Ethernet Test Transmission Interval

Test Transmission Interval	Daily	Weekly	Monthly
Programmed Minutes	001440	010080	043200

**NOTE: Minimum value is 000005 minutes. Programming an interval that is less than 5 minutes will disable test transmission.**

### GPRS Receiver 1 Options

## [201] GPRS Receiver 1 Account Code

Default (0000000000)

The account code is used by the central station to distinguish between transmitters. This account code is used when transmitting heartbeat signals to the central station receiver. Signals received from the control panel will use the control panel account number. Valid range: 0000000001 - FFFFFFFFE.

Programming this Section as all 0 or all F will cause a Module Configuration Trouble (yellow LED = 12 flashes).

## [202] GPRS Receiver 1 DNIS

Default (000000)

The DNIS is used in addition to the account code to identify the Communicator module at the central station. Valid range: 000000 - 099999. Values are entered as leading 0 followed by the five digit DNIS. Format is BCD.

**NOTE: Each Ethernet/GPRS receiver must be programmed with a unique DNIS.**

## [203] GPRS Receiver 1 Address

Default (000.000.000.000)

Enter the GPRS Receiver 1 IP address. This information will be provided by your central station system administrator. Each 3 digit segment of the address must be within a valid range of 000-255.

**NOTE: When a valid IP address has been entered, the GPRS is enabled and will communicate events over the GPRS channel.**

## [204] GPRS Receiver 1 Port

Default (0BF5/3061)

This Section determines the port used by GPRS Receiver 1. Change the default value of this port when your installation is located behind a firewall, and must be assigned a particular port number as determined by your central station system administrator. Valid range: 0000 - FFFF.

**NOTE: Programming a value of 0000 will disable the receiver.**

## [205] GPRS Receiver 1 APN

Default ( )

The Access Point Name (APN) determines the GPRS network that the Communicator will connect to. This information is available from your network carrier. Program this Section as 32 ASCII characters.

**NOTE: When a SIM card with a custom APN is used, the unit will not have access to the internet. DLS and remote flash can still be done if Section [221] is programmed with a valid Public APN.**

## [206] GPRS Receiver 1 Domain Name

Default ( )

ⓘ Programming this Section is **not** permitted on a UL/ULC listed system.

Enter the Domain Name as 32 ASCII characters. This information will be provided by your central station system administrator.

### GPRS Receiver 2 Options

## [211] GPRS Receiver 2 Account Code

Default (0000000000)

The account code is used by the central station to distinguish between different transmitters. This account code is used when transmitting signals to the central station receiver. Signals received on the control panel will use the control panel account number. Valid range: 0000000001 - FFFFFFFFE. Programming this Section as all 0 or all F will cause a Module Configuration Trouble (yellow LED = 12 flashes).

## [212] GPRS Receiver 2 DNIS

Default (000000)

The DNIS is used in addition to the Account Code to identify the Communicator module at the central station. Valid range: 000000 - 099999. Values are entered as a 0 followed by the 5 digit DNIS value. Format is BCD.

**NOTE: Each Ethernet/GPRS receiver must be programmed with a unique DNIS.**

### [213] GPRS Receiver 2 Address

Default (000.000.000.000)

Enter the GPRS Receiver 2 IP address. This IP address will be provided by your central station. Format is 4 fields, each field is 3 digit decimal. Valid range: 000 - 255.

**NOTE: When a valid address has been entered, GPRS Receiver 2 is enabled and will communicate events over the GPRS path.**

### [214] GPRS Receiver 2 Port

Default (0BF5/3061)

This Section defines the port of GPRS Receiver 2. Change the value of this port when your installation is located behind a firewall, and must be assigned a particular port number, as determined by your central station system administrator. Valid range: 0000 - FFFF.

**NOTE: Do not program GPRS Receiver 1 and GPRS Receiver 2 to communicate to the same receiver.**

### [215] GPRS Receiver 2 APN

Default ( )

The APN determines the GPRS network that the Communicator will connect to. This information is available from your network carrier. Program this Section with up to 32 ASCII characters.

**NOTE: When a SIM card with a custom APN is used, the unit will not have access to the internet. DLS and remote flash can still be done if Section [221] is programmed with a valid Public APN.**

### [216] GPRS Receiver 2 Domain Name

Default ( )

ⓘ Programming this Section is **not** permitted on a UL/ULC listed system.

Enter the GPRS Receiver 2 Domain Name with up to 32 ASCII characters.

## GPRS Options

### [221] GPRS Public Access Point Name

Default ( )

When the Communicator is operating on a private APN, use this Section to select a public APN for DLS and Remote Firmware Update. This information is available from your network carrier. The APN identifies public GPRS network that the Communicator will connect to.

### [222] GPRS Login User Name

Default ( )

Some network carriers require you to provide login credentials when connecting to an APN. Program your login User name here. Format is up to 32 ASCII characters.

**NOTE: This Section is not accessible via PC1616/PC1832/PC1864 keypad programming.**

### [223] GPRS Login Password

Default ( )

Some network carriers require you to provide login credentials when connecting to an APN. Program your login password here.

Format is up to 32 ASCII characters.

### [224] GPRS Test Transmission Time of Day

Default (9999)

Enter a 4 digit value using the 24-hour clock format (HHMM) to set the test transmission time of day. Valid range: 00-23 for the hours (HH) and 00-59 for the minutes (MM).

**NOTE: To disable the test transmission time of day enter 9999 or FFFF in this Section.**

The internal date and time will be automatically programmed by the primary receiver only.

### [225] GPRS Test Transmission Cycle

Default (000000)

This value represents the interval in between test transmissions in minutes. Valid range: 000000 - 999999 minutes.

Once the unit has sent the initial periodic test transmission, all future test transmissions will be offset by the programmed number of minutes. See Sections [026 - 029].

Table 13: Ethernet Test Transmission Interval

Test Transmission Interval	Daily	Weekly	Monthly
Programmed Minutes	001440	010080	043200

**NOTE: Minimum value is 000005 minutes. Programming an interval that is less than 5 minutes will disable test transmission.**

### [226] GSM Trouble Delay

Default (00)

This option is used to program the delay, in minutes, for reporting a GSM Trouble Delay. Valid entries are 00 - FF. (e.g., for a 10 minute GSM Trouble Delay enter 0A). There is no delay if value is programmed as 00.

## Interactive Options

(TL260-RS/TL260GS-RS Only)

### [651] Interactive Account Code

Default (MAC or IMEI)

This section is programmed as 2 field by 6 hexadecimal number. Valid range is 000000 000000 ~ FFFFFFFF FFFFFFFF. The IMEI can be viewed in Section [997]. The MAC address can be viewed in Section [998].

### [652] Interactive Access Code

Default (1234)

This section is programmed with the hexadecimal interactive access code. Valid range is 0000 ~ FFFF.

### [653] Interactive IP Address

Default (000.000.000.000)



This section is programmed as with the IP address of the Interactive Server. Format is 4 fields, each field is a 3 digit decimal. Valid range: 000-255].

#### [654] Interactive Remote Port

Default (0BFC/3068)

This Section is used to program the port number used by Interactive. Set the value of this port when your installation is located behind a firewall, and must be assigned a particular port number as determined by your central station system administrator. Valid range: 0000 - FFFF.

#### [655] Interactive Local Port

Default (0BFD/3069)

Use this Section to set the value of the Interactive local outgoing port. Set the value of this port when your installation is located behind a firewall and must be assigned a particular port number as determined by your central station system administrator. Valid range: 0000 - FFFF.

#### [656] Interactive Domain Name

Default ( )

Enter the Interactive Domain Name as 32 ASCII characters.

① Programming this Section is **not** permitted on a UL/UCL listed system.

#### [657] Interactive Incoming Port

Default (0BFE/3070)

The Interactive Incoming Local Port (listening port) is the port Interactive will use when connecting to the Communicator. If a router or gateway is used, it must be programmed with a Transmission Control Protocol (TCP) port forward for this port to the Communicator module IP address. Valid range: 0000-FFFF.

#### [658] Interactive Access Point Name 1

Default ( )

This section is programmed as 32 character ASCII. Receiver 1 shall use this APN to connect to the Interactive network. Two sockets are opened, one for each receiver. If both APNs are left blank, the unit will eventually display a Receiver not Available Trouble.

#### [659] Interactive Access Point Name 2

Default ( )

This section is programmed as 32 character ASCII. Receiver 2 shall use this APN for Interactive.

#### [661] Interactive Baud Rate

Default (05)

This section is programmed with the baud rate used. Valid entries are provided in the table below. Default baud rate is 115.2KB.

Table 14: Interactive Baud Rate Settings

HEX Value	01	02	03	04	05
Baud Rate	9600	19200	38400	57600	115200

#### [662] Interactive Port Settings Toggle

Program this section Toggles to select the Parity used for Interactive data transfers:

##### [1] Parity Enable

Default (OFF)

**ON:** Parity is enabled.

**OFF:** Parity is disabled.

##### [2] Parity Type

Default (OFF)

**ON:** Even Parity is enabled.

**OFF:** Odd Parity is enabled.

##### [3] Stop Bits

Default (OFF)

**ON:** One Stop bit is used.

**OFF:** Two Stop bits are used.

##### [4] Flow Control

Default (OFF)

**ON:** Flow Control is enabled.

**OFF:** Flow Control is disabled.

##### [5]-[8]Reserved

Default (OFF)

#### [671] Lifestyle Event Toggle

This section determines the events recorded in the Lifestyle Log. When the lifestyle buffer is 75% full, the communicator will connect to the iControl Server and upload the lifestyle information. The log can buffer 1,000 lifestyle events.

**NOTE: No FTC shall be generated for Lifestyle Events.**

##### [1] Lifestyle Log Alarm/Restore

Default (ON)

##### [2] Lifestyle Log Tamper/Restore

Default (ON)

**[3] Lifestyle Log Opening/Closing**

Default (ON)

**[4] Lifestyle Log System Maintenance**

Default (ON)

**[5] Lifestyle Log System Test**

Default (ON)

**[6] Lifestyle Log Communicator Events**

Default (ON)

**[7]-[8] Reserved**

Default (ON)

**[672] Lifestyle Zone 1 - 8 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 15: Lifestyle Zone 1 - 8 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	1	2	3	4	5	6	7	8

**[673] Lifestyle Zone 9 - 16 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 16: Lifestyle Zone 9 - 16 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	9	10	11	12	13	14	15	16

**[674] Lifestyle Zone 17 - 24 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 17: Lifestyle Zone 17 - 24 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	17	18	19	20	21	22	23	24

**[675] Lifestyle Zone 25 - 32 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 18: Lifestyle Zone 25 - 32 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	25	26	27	28	29	30	31	32

**[676] Lifestyle Zone 33 - 40 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 19: Lifestyle Zone 33 - 40 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	33	34	35	36	37	38	39	40

**[677] Lifestyle Zone 41 - 48 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 20: Lifestyle Zone 41 - 48 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	41	42	43	44	45	46	47	48

**[678] Lifestyle Zone 49 - 56 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 21: Lifestyle Zone 49 - 56 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	49	50	51	52	53	54	55	56

**[679] Lifestyle Zone 57 - 64 Toggle Options**

The default for each Lifestyle Zone Toggle is ON.

**Table 22: Lifestyle Zone 57 - 64 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	57	58	59	60	61	62	63	64

**[681] Notification Event Toggle**

This section determines the Notification events that are reported. Default for all is OFF.

**[1] Lifestyle Log Alarm/Restore**

Default (OFF)

**[2] Lifestyle Log Tamper/Restore**

Default (OFF)

**[3] Lifestyle Log Opening/Closing**

Default (OFF)

**[4] Lifestyle Log System Maintenance**

Default (OFF)

**[5] Lifestyle Log System Test**

Default (OFF)

**[6] Lifestyle Log Communicator Events**

Default (OFF)

**[7]-[8] Reserved**

Default (OFF)

**[682] Notification Zone 1 - 8 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 23: Notification Zone 1 - 8 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	1	2	3	4	5	6	7	8

**[683] Notification Zone 9 - 16 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 24: Notification Zone 9 - 16 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	9	10	11	12	13	14	15	16

**[684] Notification Zone 17 - 24 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 25: Notification Zone 17 - 24 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	17	18	19	20	21	22	23	24

**[685] Notification Zone 25 - 32 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 26: Notification Zone 25 - 32 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	25	26	27	28	29	30	31	32

**[686] Notification Zone 33 - 40 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 27: Notification Zone 33 - 40 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	33	34	35	36	37	38	39	40

**[687] Notification Zone 41 - 48 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 28: Notification Zone 41 - 48 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	41	42	43	44	45	46	47	48

**[688] Notification Zone 49 - 56 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 29: Notification Zone 49 - 56 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	49	50	51	52	53	54	55	56

**[689] Notification Zone 57 - 64 Toggle Options**

The default for each Notification Zone Toggle is OFF.

**Table 30: Notification Zone 57 - 64 Toggle**

TOGGLE	01	02	03	04	05	06	07	08
ZONE	57	58	59	60	61	62	63	64

**[901] Diagnostic Test Transmission**

- [1] Ethernet 1 (OFF).
- [2] Ethernet 2 (OFF).
- [3] GPRS 1 (OFF).
- [4] GPRS 2 (OFF).
- [5],[6],[7],[8] Reserved (OFF).

This Section may be used by the installer to force the Communicator to send an immediate test transmission to specific receivers, to verify that the communications paths are available. Diagnostic Test Transmission failure will indicate as FTC trouble (Yellow LED = 9 flashes). If an FTC error occurs when testing all receivers, select only one receiver and repeat test to isolate the receiver that is not communicating.

### **System Information (Read Only)**

**NOTE: Sections [988] - [998] are provided for information (Read Only). Values can not be modified in these Sections.**

#### **[987] Language Version**

This Section will display the current Language version of the Communicator.

#### **[988] DNS 1 IP Address**

This Section will display the IP address of DNS Server 1. This is useful when the unit is configured for DHCP and you need to see the IP address was assigned to the device by the DHCP Server. This value is programmed in Section [007] or assigned by DHCP.

#### **[989] DNS 2 IP Address**

This Section will display the IP address of DNS Server 2. This is useful when the unit is configured for DHCP and you need to see the IP address that was assigned to the device by the DHCP Server. This value is programmed in Section [008] or assigned by DHCP.

#### **[990] Boot Loader Version**

This Section will display the current Boot Loader version of the Communicator.

#### **[991] Firmware Version**

This Section will display the current firmware version of the device. Update worksheets with new version after a flash update is completed.

#### **[992] Ethernet IP Address**

This Section will display the IP address of the Ethernet connection. This value is programmed in Section [001] or assigned by DHCP.

#### **[993] Ethernet Gateway Address**

This Section will display the IP address of the Ethernet Gateway. This value is programmed in Section [003] or assigned by DHCP.

#### **[994] GPRS IP Address**

This Section will display the current dynamic IP address assigned by DHCP to the GPRS connection.

**NOTE: GPRS uses DHCP (Dynamic IP) only. The GPRS IP address is always provided by the GSM network (i.e., not programmable).**

#### **[995] SIM Number**

This Section will display the Subscriber Identity Module (SIM) number of the SIM card installed in the Communicator. Format is: Major Industry Identifier (2 digits) Mobile Country Code (2 or 3 digits); Mobile Network Code (2 - 3 digits); Unique Number (10 - 12 digits); and Checksum (1 digit). Valid SIM numbers range is: 18 - 21 numbers. This number is printed on SIM and the outside of the Communicator carton.

**NOTE: The Checksum digit is omitted on 19 digit SIM Card numbers.**

#### **[996] GSM Telephone Number**

**NOTE:** This Section will display the GSM telephone number of the SIM. This telephone number is required by the Installer for DLS and remote firmware (flash) update. **User can access this telephone number using [\*] [6] < > "GSM Phone No."** to display the phone number used for SMS Command and Control functions .

#### **[997] IMEI Number**

This Section will display the unique 15 digit International Mobile Equipment Identity (IMEI) of the radio. Format is: Reporting Body Identifier (2 digits), Allocation Number (4 digits); Final Assembly Code (2 digits); Serial Number (6 digits); and a check digit.

#### **[998] MAC Address**

This Section will display the unique 12 digit, hexadecimal number assigned as the Media Access Control (MAC) address of the device.

### **System Reset Defaults**

#### **[999] Software Default**

Default (99);

The Software default allows the installer to refresh the unit after changes and also return the Communicator to the default state.

**00:** Default Module. All programming Sections in module back to factory settings. This will erase all existing programming of the unit.

**11:** Default Labels. All labels used for SMS Command and Control are reset to the default language programmed in Section [009].

**55:** Reset. The Communicator is reset. This option is equivalent to power cycling the Communicator.

**66: Reactivate Module.** The Communicator is reactivated. Upon reactivation, the first command received by the Communicator must be an INIT command.

**NOTE: The Communicator is not reactivated by performing a Power Cycle.**

# ETHERNET/GPRS PROGRAMMING WORKSHEETS

## System Options

### [001] Ethernet IP Address

Default (000.000.000.000)

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [002] Ethernet IP Subnet Mask

Default (255.255.255.000)

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [003] Ethernet Gateway IP Address

Default (000.000.000.000);

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [004] Receiver Supervision Interval

Default (0087/135) Valid range: 0000 - FFFF.

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [005] System Toggle Options

[1] Ethernet Receiver 1 Supervised Default (OFF).

[2] GPRS Receiver 1 Supervised Default (OFF).

[3] Supervision Type Default (OFF).

[4] Primary Communications Path.

Default [OFF] TL260GS-RS; [ON]GS2060-RS.

[5] Redundant Communications Default (OFF).

[6] Remote Firmware Upgrade Default (ON).

[7] Alternate Test Transmission Default (OFF).

[8] GSM Low Signal Trouble Default (OFF).

### [006] System Toggle Options 2

[1] Ethernet Receiver 1 Enabled Default (ON).

[2] Ethernet Receiver 2 Enabled Default (ON).

[4] GPRS Receiver 1 Enabled Default (ON).

[5] GPRS Receiver 2 Enabled Default (ON).

[7] DLS Over GPRS Default (ON).

[8] Interactive Over GPRS Default (ON).

### [007] DNS Server IP 1

Ⓞ Programming not permitted on UL/ULC listed system.

Default (000.000.000.000)

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [008] DNS Server IP 2

Ⓞ Programming not permitted on UL/ULC listed system.

Default (000.000.000.000)

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [009] Language

Default (01)

Label language 01 -29. Valid range: See Table 8.

\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [010] System Toggle Options 3

[1] 2 Way Audio over GSM. Default:[OFF].

## Programming Options

### [011] Installer Code

Default (CAFE) Valid range: 0000 - FFFF.

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [012] DLS Incoming Port

Default (0BF6/3062); Valid range: 0000 - FFFF.

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [013] DLS Outgoing Port

Default (0BFA/3066) Valid range: 0000 - FFFF.

\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [020] Time Zone

Default (00) Valid range: 00 - FF.

\_\_\_\_|\_\_\_\_|

### [021] Account Code

Default (FFFFFFF)

Valid range: 000001 - FFFFFFFE.

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|

### [022] Communications Format

Default (04) Program 03 (CID), 04 (SIA).

\_\_\_\_|\_\_\_\_|

### [023] Panel Absent Trouble

Default (FF) ; Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [024] Panel Absent Trouble Restore

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [025] Radio Activation Restore

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

## System Test Options [026 - 029]

### [026] Ethernet 1 Transmission

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [027] Ethernet 2 Transmission

Default (00) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [028] GPRS 1 Transmission

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [029] GPRS 2 Transmission

Default (00) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [030] FTC Restore

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [031] Panel Tamper Alarm

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

### [032] Panel Tamper Alarm Restore

Default (FF) Program 00 disable or FF enable.

\_\_\_\_|\_\_\_\_|

## Ethernet Receiver 1 Options

### [101] Ethernet Receiver 1 Account Code

Default (000000000)

Valid range: 0000000001 - FFFFFFFFEE.

\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|\_\_\_\_|





**[686] Notification Zone 33 - 40 Toggle Options**

33	34	35	36	37	38	39	40		

**[687] Notification Zone 41 - 48 Toggle Options**

41	42	43	44	45	46	47	48		

**[688] Notification Zone 49 - 56 Toggle Options**

49	50	51	52	53	54	55	56		

**[689] Notification Zone 57 - 64 Toggle Options**

57	58	59	60	61	62	63	64		

**[901] Diagnostic Test Transmission**

- [1] Ethernet 1 Default (OFF).
- [2] Ethernet 2 Default (OFF).
- [3] GPRS 1 Default (OFF).
- [4] GPRS 2 Default (OFF).

**System Information (Read Only)**

**[988] DNS 1 IP Address**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[989] DNS 2 IP Address**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[991] Firmware Version**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[992] Ethernet IP Address**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[993] Ethernet Gateway Address**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[994] GPRS IP Address**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[995] SIM Number**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**[996] GSM Telephone Number**

This number is required for SMS, DLS, and Firmware upgrades.

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**[997] IMEI Number**

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**[998] MAC Address**

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**System Reset Defaults**

**[999] Software Default**

Default (99); Valid entries are 00; 11; 55; 66.

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- 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 cov-

ered 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 Authorization 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.

### 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.



## FCC Compliance Statement

**CAUTION:** Changes or modifications not expressly approved by the manufacturer 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 to 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.

**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.**

FCC Registration Number: **F5310GS260LSM**

## Industry Canada Statement

The prefix 'IC:' in front of the radio certification number signifies only that Industry Canada technical specifications were met.

Certification Number **IC: 160A-GS260LSM**

**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.**

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# DSC

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Tech Support 1-800-387-3630 Canada and US: 1- 905-760-3036

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