IT-230

RS-422
Interface Module

DSC

A Tyco International Company

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

The **IT-230** Interface 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

External wiring must be protected and routed in a such a way that all the local, state, federal electrical code and regulations and fire codes are fully met; the external wiring shall pose no risks for an operator. The external wiring shall be clearly labeled at both ends. Where required, NOTIFY the local authorities in regard to the performed wiring.

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.

Model Information

IT-230: Is an RS-422 Interface that allows two way message transfer between DSC PC1616/PC1832/PC1864 Power Series Panel and C24-HUB. The IT-230 provides C24 Interactive monitoring and control via an RS-422 balanced line link to the C24-HUB. The link speed is 115.2 KB and is programmable by the installer.

NOTE: The C24-HUB is 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. Life-style events are defined as "non alarm" events. Life-safety events are defined as "alarm" events.

Features

- Full event reporting to central station and C24 Interactive, via RS-422 to C24-HUB.
- Programmable Labels.
- RS-422 balanced line communication to external C24-HUB up to 1,000 ft. (305 m).
- Buffers 1,000 date and time stamped Life Style events to C24-HUB as First In First Out (FIFO) messages.

Technical Specifications

The input voltage to the IT-230 Interface 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.

Ratings

Table 1: IT-230 Interface Module Ratings

Model	IT-230 Interface Module
POWER SUPPLY RATINGS	
Input Voltage	11.1~12.6 V$_{DC}$
CURRENT CONSUMPTION	
Standby Current	140mA @ 12 V$_{DC}$
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	0°C - 49°C (32°F- 120°F)
Humidity	5% ~ 93% relative humidity, non-condensing
MECHANICAL SPECIFICATIONS	
Board Dimensions (mm)	150 × 50 × 15
Weight (grams)	45

Compatibility

Table 2: Compatible Power Panels

Interface	Panel	Description
IT-230	Power Series	• Power Series PC1616, version 4.5+ • Power Series PC1832, version 4.5+ • Power Series PC1864, version 4.5+

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

IT-230 INTERFACE PRE INSTALLATION CONFIGURATION

This IT-230 Interface is fixed and shall be installed in the Panel by Service Persons only. (Service Person is defined as a person having appropriate technical training and experience necessary to be aware of hazards to which that person may be exposed in performing a task and of measures to minimize the risks to that person or other persons). The IT-230 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 panel which is connected to the IT-230. All instructions specified within the panel manual and the C24-HUB manual must be observed.

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

Running the RS-422 Cable

An RS-422 cable must be connected to the C24-HUB and cable run to the IT-230 module inside the panel.

NOTE: Maximum cable length for RS-422 cable is 305 m (1,000 ft.)

At the C24-HUB, attach wires for RS-422 connection as follows:

1. Securely fasten the **TX+** wire on the terminal block.
2. Securely fasten the **TX-** wire on the terminal block.
3. Connect a **120 Ω ¼ W** resistor between **RX+** and **RX-** terminals on the C24-HUB.
4. Securely fasten the **RX+** wire on the terminal block.
5. Securely fasten the **RX-** wire on the terminal block.
6. Securely fasten the **GND** wire on the terminal block. (Optional, DSC recommends connection.)

Table 3: RS-422 Connector Pin Assignment

PIN	1	2	3	4	5
Signal Name	TX +	TX -	RX +	RX -	GND

7. Run the RS-422 Cable from the C24-HUB to the IT-230 mounted inside the Panel.

Hardware Factory Default

The IT-230 can be hardware reset to Factory Default by removing AC power, Battery + terminal, and telephone line, then installing a jumper between the **BLK** and **DEF** pins on the IT-230 Keybus connector (left terminal block) and restarting the IT-230. (See **Figure 2**.)

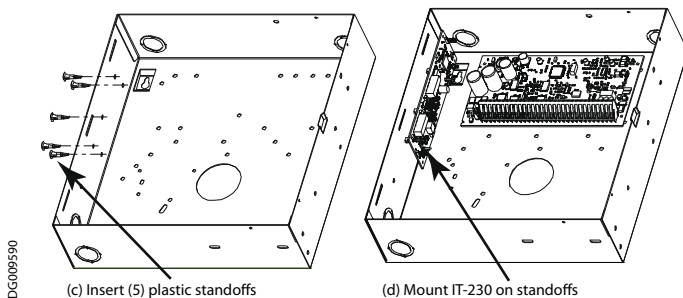*NOTE: Installing the Default (DEF) jumper during normal operation has no effect.*

INSTALLING THE IT-230 WITH PANEL

Installing IT-230 with PC1616/1832/1864 Panel

WARNING!

BEFORE INSTALLING THE IT-230 BOARD WITHIN THE ALARM CONTROLLER ENCLOSURE, DISCONNECT ALL POWER AND TELEPHONE LINES FROM THE PANEL.

Figure 1 IT-230 Panel Mounting

DG009590

(c) Insert (5) plastic standoffs   (d) Mount IT-230 on standoffs

1. To mount the **IT-230** in the panel, perform the following:

   a. Remove the Panel front cover.
   b. Remove the 5 white plastic standoffs from the bag provided with the IT-230 kit.
   c. Insert the 5 standoffs into the holes on the left side of the Panel as shown in **Figure 1** (left view).
   d. Orient the IT-230 with the standoffs on left side of Panel and push the IT-230 firmly and evenly onto the standoffs until it is securely attached to the Panel.
   e. Remove the PC-LINK cable from the supplied IT-230 kit and attach one end of the PC-LINK cable to the PC1616/1832/1864 PC-LINK header. (Red wire on Pin 1 of the Panel).
   f. Attach the other end of the PC-LINK cable to the IT-230 PC-LINK connector. (Black wire on Pin 1)**.**

WARNING!

The IT-230 Interface output circuits 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.
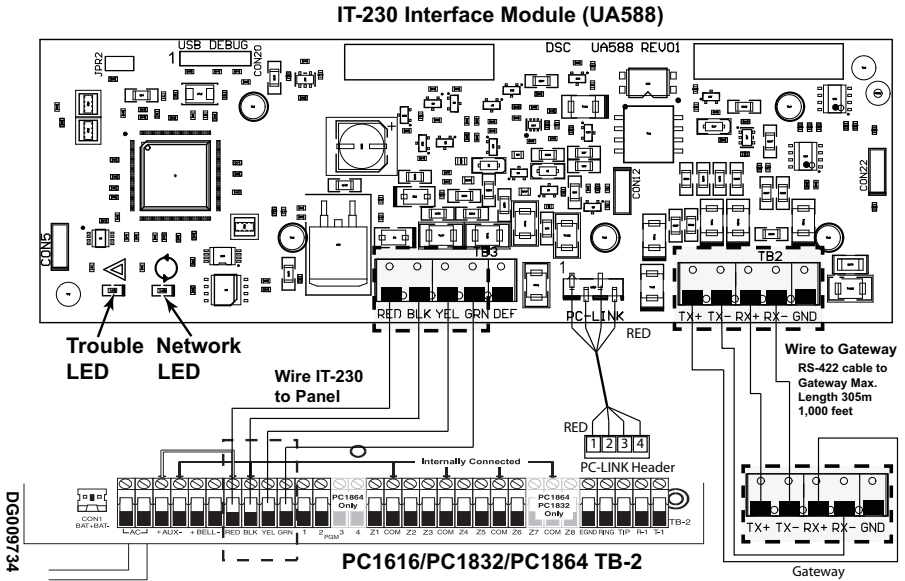
Keybus Connection between IT-230 and Panel

2. Wire the Keybus connections between Panel and the IT-230 **TB3** as follows: See **Figure 2.**
    a. Attach a wire from the IT-230 **RED** terminal to the panel's **RED** terminal.
    b. Attach a wire from the IT-230 **BLK** terminal to the panel's **BLK** terminal.
    c. Attach a wire from the IT-230 **YEL** terminal to the panel's **YEL** terminal.
    d. Attach a wire from the IT-230 **GRN** terminal to the panel's **GRN** terminal.

NOTE: Do not attach any wires to the "DEF" terminal on the IT-230.

RS-422 Connection for C24-HUB

3. Terminate the previously run RS-422 cable from the C24-HUB to the IT-230 **TB2** as follows: See **Figure 2.**
    a. Connect the **TX+** wire to the **RX**+ terminal on the IT-230.
    b. Connect the **TX-** wire to the **RX**- terminal on the IT-230.
    c. Connect the **RX+** wire to the **TX**+ terminal on the IT-230.
    d. Connect the **RX-** wire to the **TX**- terminal on the IT-230.
    e. Connect the ground wire to the **GND** terminal on the IT-230.(Optional - DSC recommends connection).
4. Perform the following steps for initial power on of the panel with IT-230 installed.
    a. Reconnect the AC power, Battery **+** connector, and Telephone line to the Panel.
       (The IT-230 and Panel will power up together).
    b. Observe that the IT-230's **Network** and **Trouble** LEDs are flashing together while the interface initializes. Both LEDs will continue to flash until the IT-230 has successfully initialized and is ready for operation.

Figure 2 IT-230 Wiring Diagram

IT-230 Interface Module (UA588)

INTERFACE STATUS LEDS

The Interface has 2 yellow LED indicators: 1 **Trouble** LED, 1 **Network** connection status LED, The LED meanings are 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

Number of Flashes	Trouble
2	Panel Supervision Trouble
10	Configuration Failure
12	Module Configuration Trouble

NOTE: Only the highest priority trouble (2 Flashes is highest priority) is indicated. When that trouble is restored, the next highest trouble will indicate, if present. This will continue until all Troubles have been cleared (Trouble LED is OFF).

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

2 Flashes: Panel Supervision Trouble

This trouble will be indicated when communication between the IT-230 module and the Panel fails. If the module can not communicate with the panel (e.g., loss of power to the panel) the IT-230 will send a **Panel Absent Trouble** (Section [023]) event message to the Change to C24-HUB. When communication is restored, the IT-230 will send a **Panel Absent Restore (**Section [024]) event message to the C24-HUB. The reporting codes are **ET0001** (Trouble) and **ER0001** (Trouble Restore). The Panel Absent/Restore events always use primary receiver Account Code (See Section [021]) when communicating these events.

NOTE: The Panel Absent Trouble/Restore are internally generated events by the IT-230. These are the only internal events created; all other events are generated by the Panel. The Trouble is generated if the IT-230 misses 6 consecutive polls to the panel and is restored on successful receipt of a single poll.

10 Flashes: Configuration Failure

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

12 Flashes: Module Configuration Failure

This trouble is indicated when the System Account Code has not been programmed in Section [021].

Yellow Connection Status LED

BLINKING: Indicates communication is in progress between IT-230 and the C24-HUB.
- Once quickly for outgoing transmission from the IT-230.
- Twice quickly to indicate incoming ACK/NACK from the C24-HUB.

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

ON: There is a problem with the connection. The yellow LED will be ON when trouble is indicated:

INITIAL PANEL PROGRAMMING

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: [--3--6--]. 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 slash (/) 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 HEX value **C** at the keypad, press [*] [3].

Entering ASCII Characters at keypad

1. Press [*] and use the scroll buttons **[<] [>]** to display **ASCII Entry** on the keypad 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 entry.
4. Repeat the steps above to enter another ASCII character.

PC1616/1832/1864 Initial Programming

Perform the following steps to ensure that the IT-230 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 Programming Worksheets for the Panel.
1. In Panel Section [167] program 060 (seconds).
2. In Panel Section [382] set Option [5] ON.
3. In Panel Section [383] set Option [7] ON. (Interactive bidirectional, events and logs, firmware upgrade).
4. In Panel Section [383] set Option [8] ON for CID, or OFF for SIA.

IT-230 PROGRAMMING SECTION

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 Programming section. The worksheet at the end of this document can be used to record new values when programming changes have been made from their default values. Default values are provided for each Section.

NOTE: Programmed values can not be modified using the keypad. Installers may review/record programming Option values at the keypad.

Programming Options

[011] Installer Code
Default (CAFE)
Program your installer code for this IT-230 module. The installer code is required whenever programming of the IT-230 module is required. Valid range: 0000 - FFFF.

[021] Account Code
Default (FFFFFF)
The Account Code is included when transmitting events generated by the IT-230. (e.g., Panel Absent Trouble). It is recommended that the IT-230 Account Code be the same as the Panel Account Number. Valid range: 000001-FFFFFE. If 4 digit account codes are needed the 2 lowest digits shall be programmed as FF;(e.g., Account Code 1234 is programmed as:1234**FF**). Programming this Section as all 0 or all F will cause a Module Configuration Trouble (Trouble LED = 12 flashes).
NOTE: 12 flashes are indicated on the IT-230 only. This status is NOT communicated to the panel.

[022] Communications Format
Default (04)
The module can be configured to send IT-230 Events in SIA or CID format. Program **03** for CID. Program **04** for SIA. The SIA communication format follows the level 2 specifications of the *SIA Digital Communication Standard - October 1997*. This format will send the Account Code programmed in Section [021] 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** = [023] Panel Absent Trouble; **001** = Zone 001.

IT-230 Communications Reporting Codes

Table 5: 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

[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.

Interactive Options

[651] Interactive Account Code
Default (000000)
This section is programmed with the interactive Account Code of the IT-230.

[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 115.2 KB.

Table 6: 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 enabled.
  OFF: Parity disabled.

[2] Parity Type
  Default (OFF)
  ON: Even Parity enabled.
  OFF: Odd Parity enabled.

[3] Stop Bits
  Default (OFF)
  ON: 1 Stop bit is used.
  OFF: 2 Stop bits are used.

[4] Flow Control
  Default (OFF)
  ON: Flow Control enabled.
  OFF: Flow Control disabled.

[5]-[8]Reserved
  Default (OFF)

[671] Lifestyle Event Toggle
This section determines the events recorded in the **Lifestyle Log**. When the lifestyle log buffer is **75%** full, the IT-230 will connect to the server and upload the lifestyle information. The log can buffer 1,000, variable length, lifestyle events.
NOTE: No Failure To Communicate (FTC) error 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 IT-230 Events
  Default (ON)

[7]-[8] Reserved
  Default (ON)

64 Zone Lifestyle Toggle Options

[672] Lifestyle Zone 1 - 8 Toggle Options
The default for each Lifestyle Zone Toggle is ON.

Table 7: 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 8: 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 9: 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 10: 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 11: 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 12: 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 13: 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 14: 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 Toggles is ON.

[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 IT-230 Events
 Default (ON)
[7]-[8] Reserved
 Default (ON)

64 Zone Notification Toggle Options
[682] Notification Zone 1 - 8 Toggle Options
The default for each Notification Zone Toggle is ON.

Table 15: 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 ON.

Table 16: 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 ON.

Table 17: 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 ON.

Table 18: 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 ON.

Table 19: 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 ON.

Table 20: 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 ON.

Table 21: 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 ON.

Table 22: Notification Zone 57 - 64 Toggle

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

System Information (Read Only)
NOTE: Sections [987] - [991] are provided for information (Read Only). Values in these Sections cannot be modified.

[987] Language Version
This Section will display the current Language version of the IT-230.

[990] Boot Loader Version
This Section will display the current Boot Loader version of the IT-230.

[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.

System Reset Defaults

[999] Software Default
Default (99)

Software default allows the installer to refresh the unit after changes and also return the IT-230 to default state.

00: **Default Module**. All programming Sections in module reset to factory settings.
NOTE: This will erase all existing programming of the IT-230.
55: **Reset**. The IT-230 is reset. This option is equivalent to power cycling the IT-230.

Programming Options

[011] Installer Code

Default (CAFE) Valid range: 0000 - FFFF.

|___|___|___|___|

[021] Account Code

Default (FFFFFF)
Valid range: 00000**1** - FFFFF**E**.

|___|___|___|___|___|___|

[022] Communications Format

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

|___|___|

[023] Panel Absent Trouble

Default (FF)

|___|___|

[024] Panel Absent Trouble Restore

Default (FF) Program 00 disable or FF enable.

|___|___|

Interactive Options

[651] Interactive Account Code

Default (000000)

|___|___|___|___|___|___|

[661] Interactive Baud Rate

Default (05)

|___|___|

[662] Interactive Port Settings Toggle

|___| [1] Parity Enabled Default (OFF).

|___| [2] Even/Odd Parity Default (OFF).

|___| [3] 1 or 2 Stop Bits Default (OFF).

|___| [4] Flow Control. Default (OFF).

[671] Lifestyle Event Toggle

|___| [1] Alarm/Restore Default (ON).

|___| [2] Tamper/Restore Default (ON).

|___| [3] Opening/Closing Default (ON).

|___| [4] System Maintenance Default (ON).

|___| [5] System Test Default (ON).

|___| [6] Internal Events Default (ON).

64 Zone Lifestyle Toggle Options

[672] Lifestyle Zone 1 - 8 Toggle Options

|___|___|___|___|___|___|___|___|
 1   2   3   4   5   6   7   8

[673] Lifestyle Zone 9 - 16 Toggle Options

|___|___|___|___|___|___|___|___|
 9 10 11 12 13 14 15 16

[674] Lifestyle Zone 17 - 24 Toggle Options

|___|___|___|___|___|___|___|___|
17 18 19 20 21 22 23 24

[675] Lifestyle Zone 25 - 32 Toggle Options

|___|___|___|___|___|___|___|___|
25 26 27 28 29 30 31 32

[676] Lifestyle Zone 33 - 40 Toggle Options

|___|___|___|___|___|___|___|___|
33 34 35 36 37 38 39 40

[677] Lifestyle Zone 41 - 48 Toggle Options

|___|___|___|___|___|___|___|___|
41 42 43 44 45 46 47 48

[678] Lifestyle Zone 49 - 56 Toggle Options

|___|___|___|___|___|___|___|___|
49 50 51 52 53 54 55 56

[679] Lifestyle Zone 57 - 64 Toggle Options

|___|___|___|___|___|___|___|___|
57 58 59 60 61 62 63 64

[681] Notification Event Toggle

|___| [1] Alarm/Restore Default (ON).

|___| [2] Tamper/Restore Default (ON).

|___| [3] Opening/Closing Default (ON).

|___| [4] System Maintenance. Default (ON).

|___| [5] System Test Default (ON).

|___| [6] Internal Events Default (ON).

64 Zone Notification Toggle Options

[682] Notification Zone 1 - 8 Toggle Options

|___|___|___|___|___|___|___|___|
 1   2   3   4   5   6   7   8

[683] Notification Zone 9 - 16 Toggle Options

|___|___|___|___|___|___|___|___|
 9 10 11 12 13 14 15 16

[684] Notification Zone 17 - 24 Toggle Options

|___|___|___|___|___|___|___|___|
17 18 19 20 21 22 23 24

[685] Notification Zone 25 - 32 Toggle Options

|___|___|___|___|___|___|___|___|
25 26 27 28 29 30 31 32

[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

System Information (Read Only)

[991] Firmware Version

|___|___|___|___|___|___|___|___|___|

System Reset Defaults

[999] Software Default

Default (99)

|___|___|

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

Warranty Procedure

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

Conditions to Void Warranty

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

•damage incurred in shipping or handling;

•damage caused by disaster such as fire, flood, wind, earthquake or lightning;

•damage due to causes beyond the control of Digital Security Controls such as excessive voltage, mechanical shock or water damage;

•damage caused by unauthorized attachment, alterations, modifications or foreign objects;

•damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls);

•defects caused by failure to provide a suitable installation environment for the products;

•damage caused by use of the products for purposes other than those for which it was designed;

•damage from improper maintenance;

•damage arising out of any other abuse, mishandling or improper application of the products.

Items Not Covered by Warranty

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

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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 into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The user may find the following booklet prepared by the FCC useful: 'How to Identify and Resolve Radio/Television Interference Problems'. This booklet is available from the U.S. Government

Industry Canada Statement

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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