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UPLINK MODEL 2530
PRIMARY
CELLULAR COMMUNICATOR
PRODUCT ID # 19-25133-845

USER'S GUIDE
INSTALLATION AND OPERATING INSTRUCTIONS

Uplink[™]
A **Numerex** Security Solution

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1. Introduction

The Uplink Security MODEL 2530 Primary Cellular Communicator is an alarm and critical event communicator designed to be used with almost any manufacturer's alarm panels that incorporate a digital telephone dialer. The MODEL 2530 unit provides a "**Primary**" interface to the protected premises' alarm panel. The primary application for this unit is an installation where no TELCO is present or available. The 2530 unit will "**intercept**" the alarm panel's digital dialer output when the panel has an event to report, and communicate with the panel as if it were a central station alarm receiver. Once the 2530 completes a communications session with the alarm panel, it will packetize the event data and transmit the alarm information to the designated central station receiver using the local cellular communications network. Alarm information can be sent in either Contact ID (SIA-DC05) or SIA (SIA-DC03) format to any UL Listed central station receiver.

The 2530 Cellular Communicator uses GSM technology to receive programming and send event information to the central station. Its operating frequencies are in the 850 MHz and 1900 MHz bands. The 2530 has its own built-in power supply and the transmitter is capable of operating as a Class 4 device (2 W output) on 850 MHz and as a Class 1 device (1 Watt output) on 1900 MHz. The 2530 comes with a dual band quarter-wave antenna covering the frequency bands of 824 - 894 MHz and 1850 - 1990 MHz.

The 2530 Cellular Communicator can be used as the primary means of communications, or as the backup communications path for the alarm panel to which it is connected when the alarm panel has an alternate communications path such as a digital dialer (or DACT), direct internet, etc.

2. Key Features

A. FULL DATA Reporting. Compatible with most alarm panels using Contact ID (SIA DC-05 Standard) or SIA FSK Level 1 (SIA DC-03 Standard) digital dialer formats. All information sent by the alarm panel in either format (Account number, zone information, User IDs, etc.) will be sent to the central station using the GSM network.

B. Panel to 2530 Cable Supervision. Monitors continuity of the cable connecting the panel's telephone dialer to the 2530. This feature is activated through the web site www.uplink.com or by calling Uplink Customer Service at 1-888-9-UPLINK (1-888-987-5465).

C. Output. The 2530 has one programmable relay output. This output can be programmed to activate upon the occurrence of one or more of the following Trouble conditions:

- Cellular Network Loss
- No Central Station Acknowledgement
- Low DC input Voltage
- Panel/ 2530 Cable Supervision Trouble
- Unit Disabled by Dealer Command
- Watchdog Circuit Activation
- Catastrophic Failure Condition

F. Power Source Monitoring (Low DC Input Voltage Reporting). The 2530 can report a low input Voltage condition to the central station when its DC input voltage drops below 10.2 VDC. It will report Low input Voltage Restoral at 11.4 VDC.

G. Automated Testing. The 2530 can be programmed to send an automated test signal to the central station on a monthly, weekly or daily interval.

H. GSM Network Supervision. Supervises the local GSM network. If the unit no longer locates the local GSM network, its output relay activates to report this trouble condition.

I. Status/Received Signal Strength LEDs. The five LEDs indicate the current operational status and are visible from outside the enclosure. These LEDs can be placed into Received Signal Strength Indication mode (RSSI) to assist in selecting the optimal mounting location for transmitting and receiving cellular radio signals.

J. Easy Service Initiation. Ships with a SIM card, with easy activations available via the Web at www.uplink.com, or at ex.uplink.com (for current customers) or by calling Uplink Customer Service at 1-888-9-UPLINK (1-888-

987-5465). Requires the central station receiver phone number and/or its IP address and Port number.

K. Web-based Services. Available at www.uplink.com and include:

- a. immediate, real-time activation
- b. history of past event transmissions
- c. initiation of a test report
- d. the ability to query the unit and receive a real-time radio report status including a Received Signal Strength reading
- e. programming the output and other internally generated events

L. ETL Recognized. Electrical Testing Laboratories (ETL) was founded in 1896 by Thomas Edison, and is one of the oldest product safety testing laboratories in the world. Certification by ETL assures that the 2530 has been tested to meet US safety and performance standards. Like the UL Mark, the ETL Mark shows that our product has been independently tested by a Nationally Recognized Testing Laboratory (NRTL) and that it has met the minimum requirements of widely accepted product safety standards. The ETL Mark is recognized and readily accepted by manufacturers, retailers, distributors and authorities having jurisdiction (AHJs).

The Model 2530 unit is ETL Recognized and conforms to UL Standards 985, 1023, and 1635 for Household Fire Warning, Household Burglar Alarm, and Digital Alarm Communicator systems. It is perfectly suited for use in any UL certificated household alarm systems that conform to the above standards. (See the UL Compliance Section of this manual for complete details.)

3. Warranty Information and Liability Waiver

TERMS and CONDITIONS

These terms and conditions are a legal contract between you and the Company and supplement (but do not supersede) the terms and conditions of any master agreement between you and Uplink Security, Inc. (the “Company”) governing your purchase of the Product from the Company. By using, marketing, or selling the Product, you agree to these terms and conditions. In the event of any conflict with the master agreement, the terms and conditions of the master agreement will control.

LIMITED WARRANTY – Numerex Devices

Uplink warrants, to parties purchasing Uplink equipment directly from Uplink, i.e., to its authorized distributors and to no other parties, that for 12 months following the date of purchase, Uplink equipment will be free of defects in materials and workmanship when installed, operated, maintained, and serviced in strict accordance with Uplink’s and, if applicable, the manufacturer’s requirements. If Uplink equipment fails because of a defect in materials or workmanship within the warranty period, Uplink will, at its sole option and at no charge, repair or replace it. Uplink’s agreement to repair (using new or reconditioned parts) or replace (with a comparable new or reconditioned Uplink unit) is the exclusive remedy with respect to Uplink Equipment found to be defective in materials or workmanship; this remedy will not be deemed to have failed of its essential purpose so long as Uplink is willing and able to repair or replace the defective unit as provided above or, at Uplink’s sole option, to refund the purchase price paid. Parties purchasing Uplink equipment from a distributor are referred to the distributor with respect to any product claims they may have.

THE FOREGOING WARRANTY IS LIMITED AND IS THE ONLY WARRANTY OFFERED HEREUNDER. UPLINK MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, AND NON-OBSOLESCENCE. THE FOREGOING WARRANTY FURTHERMORE DOES NOT COVER UPLINK DEVICES THAT (A) HAVE BEEN IMPROPERLY INSTALLED, MAINTAINED, OR SERVICED; (B) HAVE BEEN TAMPERED WITH OR DEFACED; OR (C) HAVE BEEN SUBJECTED TO ABUSE OR A HOSTILE OPERATING ENVIRONMENT.

NO WARRANTY – SERVICES

ALL SERVICES ASSOCIATED WITH UPLINK DEVICES INCLUDING, WITHOUT LIMITATION, NETWORK CONNECTIONS ENABLED BY UPLINK, ARE PROVIDED STRICTLY AS-IS, WITHOUT WARRANTY OF ANY KIND INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, NON-OBSOLESCENCE, NON-INTERRUPTION, AND FREEDOM FROM ERROR.

Other terms and conditions and limitations of liability apply as set forth in the applicable contractual agreement with Uplink.

INDEMNIFICATION

You agree to defend, hold harmless, and indemnify the Company and its affiliates and their respective officers, directors, employees, and agents from and against any and all damages, liability, costs, and expenses (including, without limitation, reasonable attorneys' fees) arising out of or relating to (a) any claim for breach of this Agreement by you; (b) any claim for negligence, intentional misconduct, or any other act or omission on the part of you or your employees, agents, or representatives; (c) personal injury, death, or property damage allegedly or impliedly caused by you or your employees, agents, or representatives in connection with this Agreement; or (d) any claim that an application of the Product or your actions in distributing the Product or integrating it with other hardware, software, or systems infringe the intellectual property rights of a third party.

LIMITATIONS of LIABILITY

THE COMPANY SHALL NOT BE LIABLE FOR ANY ACTS OR OMISSIONS OF YOU, YOUR CUSTOMERS, END USERS OF THE PRODUCT, OR ANY THIRD PARTY INCLUDING, WITHOUT LIMITATION, ANY ENTITY FURNISHING EQUIPMENT, SOFTWARE, FIRMWARE, OR SERVICES TO THE COMPANY, YOU, YOUR CUSTOMERS, OR END USERS OF THE PRODUCT, NOR SHALL THE COMPANY BE LIABLE FOR ANY DAMAGES ATTRIBUTABLE, IN WHOLE OR IN PART, TO THE FAILURE OF SAID EQUIPMENT, SOFTWARE, FIRMWARE, OR SERVICES. THE COMPANY SHALL NOT BE LIABLE FOR INTERRUPTIONS IN, OR INTERFERENCE WITH, THIRD PARTY TELECOMMUNICATIONS CARRIERS' TRANSMISSIONS OVER WHICH THE COMPANY HAS NO CONTROL, I.E., FOR INTERRUPTIONS OR INTERFERENCE CAUSED BY NETWORK CONGESTION, WEATHER CONDITIONS, TERRAIN, BUILDINGS, LOCALIZED "GAPS" IN TELECOMMUNICATIONS NETWORK COVERAGE, AND OTHER NATURAL OR ARTIFICIAL CONDITIONS OVER WHICH THE COMPANY HAS NO CONTROL. THE COMPANY SHALL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE, OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST REVENUES, DATA, OR PROFITS, REGARDLESS OF WHETHER THE COMPANY WAS ADVISED OF, OR COULD HAVE REASONABLY FORESEEN, THE POSSIBILITY OF SUCH DAMAGES. THE COMPANY SHALL NOT BE LIABLE IN THE EVENT THAT FUTURE TECHNOLOGICAL CHANGES IMPLEMENTED BY ANY THIRD PARTY OR GOVERNMENTAL ENTITY RENDER THE PRODUCT WHOLLY OR PARTIALLY INOPERABLE. OTHER LIMITATIONS OF LIABILITY MAY APPLY AS PROVIDED BY THE MASTER AGREEMENT, IF ANY, GOVERNING YOUR PURCHASE OF THE PRODUCT FROM THE COMPANY.

4. FCC and Industry Canada Regulatory Compliance

Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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:

- Reorient or relocate 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 technician for help.

5. FCC RF Exposure Information

In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated transmitters. Those guide-lines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this module complies with the FCC guidelines and these international standards. The FCC ID of this unit is TWV192513384X. For more information about RF exposure, please visit the FCC website at www.fcc.gov.

The term "IC" before the certification/registration number only signifies that the Industry Canada Technical Specifications were met. The external antennas used for this module must provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

6. Technical Support

Technical support is available Monday through Friday, 8:00 AM to 8:00 PM ET excluding holidays. Before calling technical support please ensure to have read the installation guide completely. Technical support requires the caller to provide:

- Login name
- Password
- Serial number of the 2530

UPLINK Technical Support
1600 Parkwood Circle, Suite 500
Atlanta, GA 30339
888-9-Uplink (888-987-5465)
Fax: 770-693-3501

For Customer Support, call 888-987-5465, or visit www.uplink.com.

7. Installation

A. General Considerations

Determine where to mount the unit. Keep the following in mind:

- a. Where to obtain the best transmitted and received signal strength for the cellular radio. (If the installer does not have a very strong cellular signal in his area, he may want to first power the unit from a portable 12 VDC source and test for the location that gives him the best signal strength.)
- b. Proximity to the alarm panel and where to route the 2530's relay output that connects to the alarm panel unit's input.

B. DIP Switch Settings

The 2530 has a four-position dipswitch. The dipswitches function as follows:

SWITCH No.	SETTING	FUNCTION
S1: Default Load	OFF	Normal Operations
	ON	Load defaults
S2: Panel Protocol	OFF	CID protocol
	ON	SIA (Level 1 & partial Level 2)
S3: Reserved	OFF	N/A
	ON	N/A
S4: LED Function	OFF	Normal Operations
	ON	RSSI Measurements

C. LEDs

Normal Mode: Upon initial power up, the 5 LEDs on the 2530 will begin to function as follows:

LED	LED STATUS	LED MEANING
POWER LED (#1)		
OFF		No DC power is present
GREEN	On	DC Power is present
RED	Flashing	DC Input Voltage Low
PANEL HOOK STATUS LED (#2)		
GREEN	On	Panel is on-hook
	Flashing	Panel is off-hook
TROUBLE LED (#3)		
Green	On	Output Relay Normal
Red	On	Output Relay Off-Normal
GSM COMM LED (#4)		
Green	On	Unit registered on the network
	Fast Flash	Transmitted SMS message, wait for OK from radio
	Slow Flashing	Waiting for an ACK from the Central Station
Red	On	Unit not registered or No Cellular Network
HEARTBEAT LED (#5)		
Green	Flashing	Unit is functioning normally
Red	Flashing	S1 is ON after reset

RSSI Mode: When the 2530 is placed in Received Signal Strength Indicator (RSSI) Mode by turning Dipswitch S4 to ON, the five LEDs indicate the follow signal strength information:

Received Signal Strength	Appearance of LEDs (#1 thru #5)
≥ -40 dBm	●●●●● #1: green, solid ; #2: green, solid ; #3: green, solid ; #4: green, solid ; #5: green, solid
≥ -50 dBm	○●●●● #1: off; #2: green, solid ; #3: green, solid ; #4: green, solid ; #5: green, solid
≥ -60 dBm	○○●●● #1: off; #2: off; #3: green, solid ; #4: green, solid ; #5: green, solid
≥ -70 dBm	○○○●● #1: off; #2: off; #3: off; #4: green, solid ; #5: green, solid
≥ -80 dBm	○○○○● #1: off; #2: off; #3: off; #4: off; #5: green, solid
≥ -90 dBm	○○○○☀ #1: off; #2: off; #3: off; #4: off; #5: green, flash
≥ -110 dBm	○○○○● #1: off; #2: off; #3: off; #4: off; #5: red, solid
≤ -111 dBm	○○○○☀ #1: off; #2: off; #3: off; #4: off; #5: red, flash
No signal	○○○○○ All OFF

D. Locating and Installing the 2530

The 2530 is housed in a plastic enclosure. The installer needs to supply DC power from the panel via the AUX output or via a separate DC power source. Input DC current is listed in Section 9 – Specifications.

After carefully considering all of the issues outlined in Section 7-A (General Considerations), proceed as follows:

1. Separate the top and bottom of the enclosure by depressing the tab on the bottom of the unit and then tilting the bottom of the plastic top outward and up.
2. Connect the antenna that is supplied with the 2530. The Antenna supplied may differ from the ones depicted in the figures in this manual.
3. Go to the red, 4-position Dipswitch as shown in Figure 1 and set the dipswitch as appropriate for this installation. (See Section 7B.)
4. Place Dipswitch #4 (S4) in the ON position. The LEDs are now operating in RSSI Mode. Locate a good mounting position based on a good Received Signal Strength Indication (RSSI). **It is recommended that the installation location demonstrate an RSSI of at least -80 dBm (1 solid green LEDs).** The minimum acceptable RSSI is -90 dBm (1 flashing green LED).

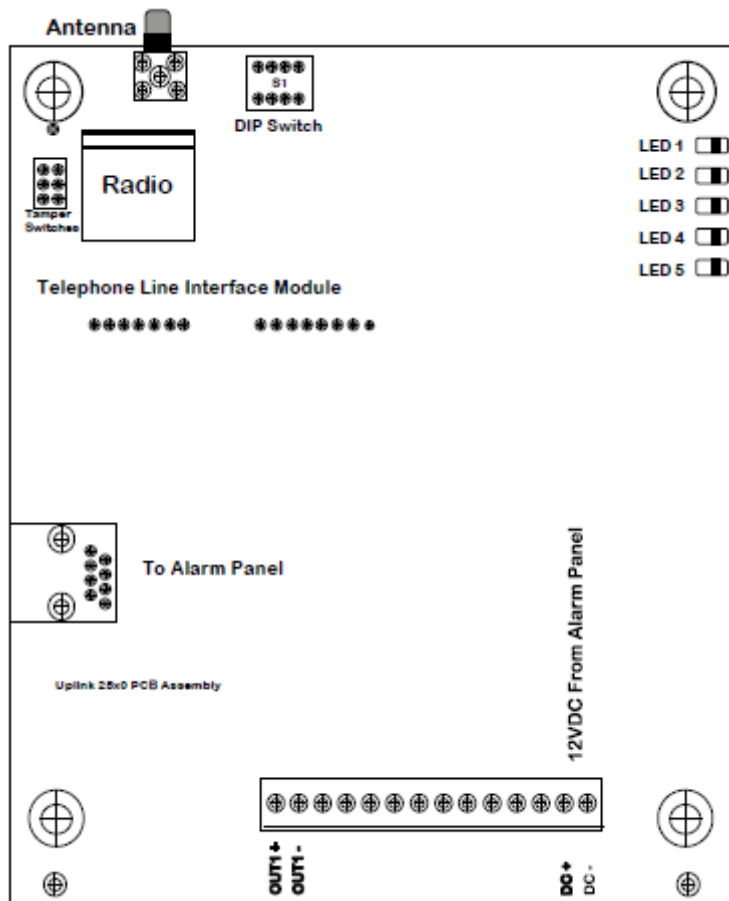


Figure 1: Model 2530 PC Board Details

Position the bottom of the 2530 enclosure where it will be installed. Use four (4) #6 screws and mount the unit using the four holes in the enclosure's plastic bottom. The 2530's dimensions are shown in Figure 2.

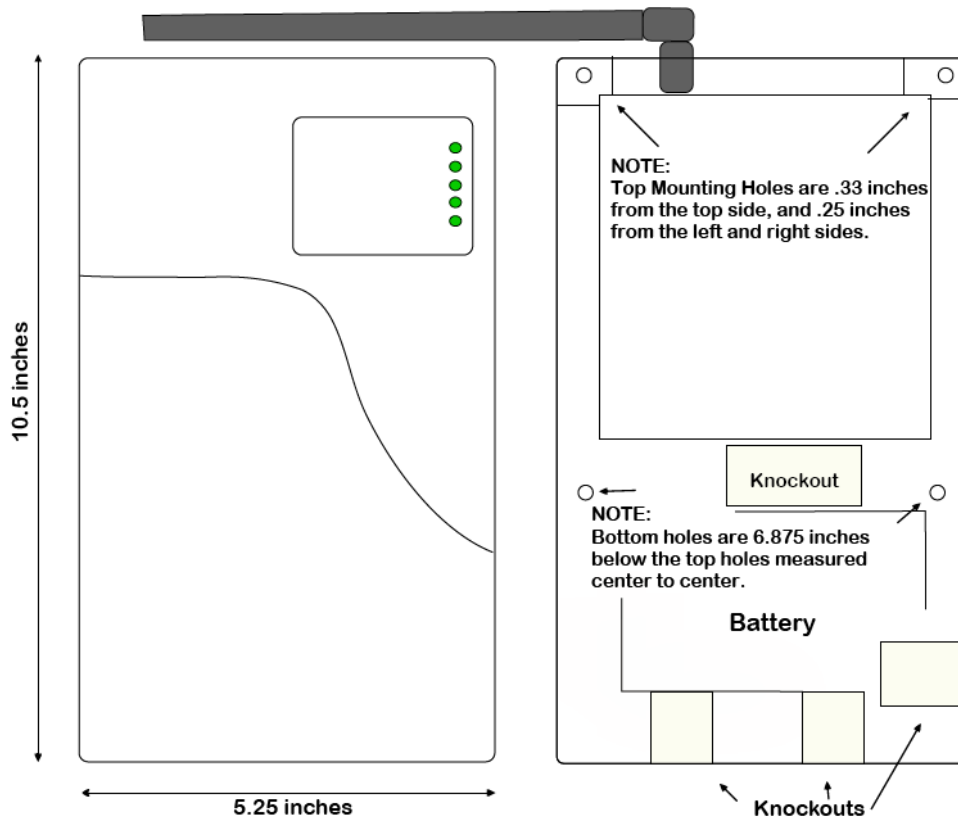


Figure 2: Inside & Outside Mounting Dimensions for the 2530

5. Make sure that the unit's antenna is connected.
6. Connect the positive (+) and negative (-) terminals of the DC Power Input to terminals DC+ and DC - respectively on the 2530's JP15 terminal strip.
7. Double check to make sure that the RSSI is still showing a good signal strength level.
8. Before connecting the alarm panel and the 2530, first:
 - a. Return Dipswitch #4 (S4) to the OFF position.
 - b. Disconnect the Positive and Negative connections to the DC Power source.

Caution: Incorrect Connections May result in Damage to the Unit

E. Connecting the 2530 to the Alarm Panel

IMPORTANT: Make all of the connections to the 2530 in the powered down state. Once all of the connections have been established, turn power on.

1. First, remove DC input Power from the 2530, then proceed as follows:
2. Panel Connections.
Connect the alarm panel's telephone output to the 2530 with an appropriate cable. On the 2530's side, the cable should use an RJ45 plug and be connected into Jack JP3 (the Jack closer to the Terminal Strip).
3. Output
The 2530 has one relay output that can be used to activate an input on the alarm panel or for other local purposes. Decide on how to use this output, then wire it to terminal strip JP14 as follows:

Output #1 Terminals: OUT1+ and OUT1-

The default state for this Output is as follows:

Output	Default State	Default Definition
#1	Energized closed (N.O.)	Loss of cellular service

See Figure 3 as an example of how to connect the 2530 to the alarm panel.

Model 2530 Primary Alarm Communicator

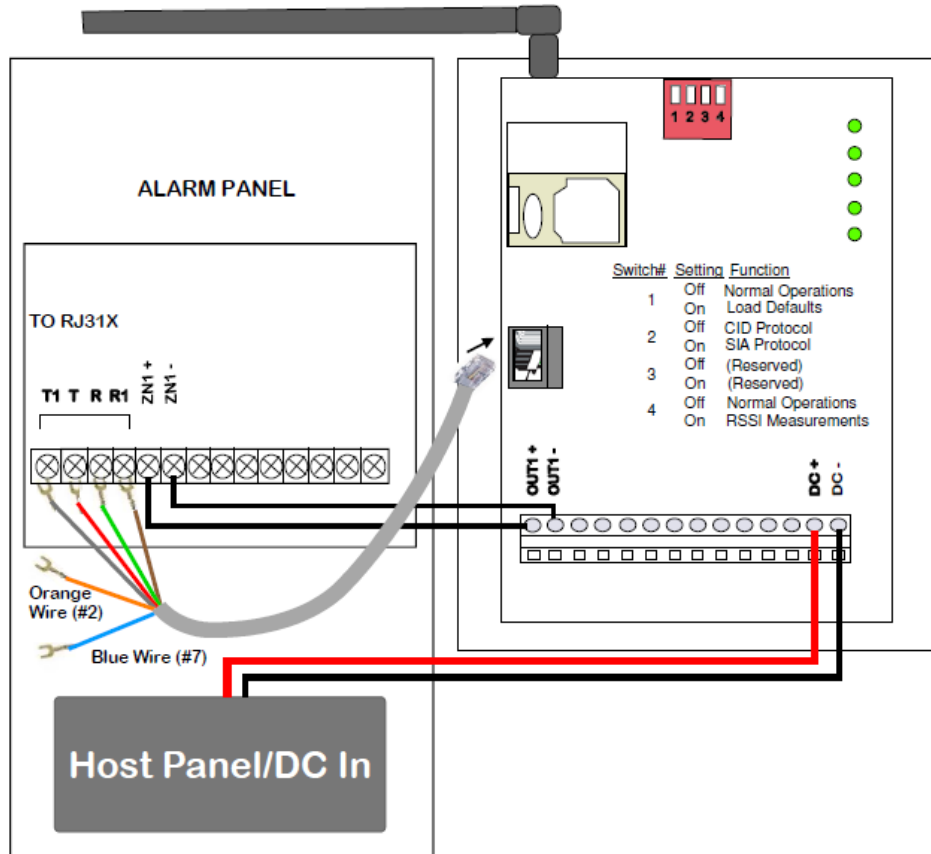


Figure 3: Connections between the 2530 and the Alarm Panel

F. Activating the 2530 Unit

The 2530 is programmed OTA (Over-the-Air) by accessing the Uplink Dealer web site or by calling Uplink Customer Service at 1-888-987-5465.

New Dealer 2530 Activation:

For new dealers/customers, establish an account with Uplink by visiting the Numerex/Uplink web site (www.uplink.com).

- Click on Set up a new account .
- Read the UPLINK Security Inc. Dealer Agreement, then click on Accept Agreement.
- A box will appear saying “You hereby accept the Uplink Security Dealer Agreement?” Click on OK.
- A box will appear saying “If you want monthly service billed to a 3rd party such as a central monitoring station then you should NOT request an account – please contact Uplink Sales at 888-987-5465.” Click OK.

- e. At this point there will be a screen entitled “Step 2. Rapid Signup – please provide Login & Contact Information”. Fill out this form, then click Sign Up.
- f. Go back to the Login page and use the newly created Login Name and Password to sign into the web site. **Wait about 20 seconds for the next web page to completely install.**
- g. Go to Configure.
- h. Go to Activate Unit.
- i. Put in the Unit Serial #.
- j. Choose a Service Plan.
- k. Choose an Activation Type.
- l. Click on Activate Unit.
- m. Now see “Model 2530 Serial # <ten digit number> _successfully activated → Click here to configure unit”.
- n. Click on Click here to configure unit.
- o. There will now be a page entitled “Send MT – 2530”. Fill in all of the options, and then click on Send All.

Existing Dealer 2530 Activation:

For dealers/customers who already have an account with Uplink, go to the Numerex/Uplink web site (www.uplink.com) or ex.uplink.com.

- a. Enter the Login Name and Password. **Wait about 20 seconds for the next web page to completely install.**
- b. Go to Configure.
- c. Go to Activate Unit.
- d. Put in the Unit Serial #.
- e. Choose a Service Plan.
- f. Choose an Activation Type.
- g. Click on Activate Unit.
- h. Now see “2530 Serial #<ten digit number> _successfully activated → Click here to configure unit”.
- i. Click on Click here to configure unit.
- j. There will now be a page entitled “Send MT – Model 2530”. Fill in all of the options, then click on Send All.

G. Programming and Central Station Reporting

Programming requires the telephone number of the monitoring central station’s alarm receiver and/or its IP address and Port number. Determine whether to use the default settings for the events to be reported or customize them by completing the following:

Use this web site to program:

- a. Whether alarms will be sent to the central station via an IP connection or

- via a telephone dialer.
- b. The telephone number or IP address and Port number of the central station receiver where all of the signals should be sent.
 - c. The account number to be sent to the central station for events generated by the 2530.
 - d. What event codes should be sent for Low DC Input Voltage and its Restoral.
 - e. Whether alarm events should also be sent to an email account, and the email account's address.

The following parameters can be configured from the Dealer Web Site;

1. Dialer Intercept Mode Status (Default = Intercept ON).

The unit is set up by default to permanently intercept the panel's dialer (RF Only Mode) but can be programmed to never intercept the panel's dialer from the Dealer Web Site.

2. Automated and On Demand Test Signals (Default = Weekly)

The Automated Test signal interval can be changed to Daily or Weekly from the Dealer Web Site. In addition, an immediate test signal can be generated.

3. Activate/Deactivate Output Relay

Output relay #1 can be activated or deactivated from the Dealer Web Site. This feature allows the installer to test the correct operation of this output when it is connected to the alarm panel.

4. Normal State of Output Relay (Default = #1 Closed)

The normal state of the Output Relay can be changed from the Dealer Web Site.

5. Definition of Output Relay (Default = #1 Loss of Cellular Service)

There are 6 Trouble states that can be declared by the 2530, and each of these states can be programmed from the Dealer Web Site to activate the Output Relay. The 6 Trouble states are:

- Low DC Input Voltage
- Cable Supervision Trouble (Panel to 2530)
- Loss of Cellular Service
- 2530 Disabled (via Web Site command)
- Failure to receive ACK from Central Station
- Watchdog Circuit Trouble

6. Send Trouble Condition to Central Station (Default = Low DC Input Voltage)

Any or all of the Trouble Conditions detectable by the 2530 can be programmed to report that condition (and its Restoral) to the monitoring Central Station.

See **Appendix A** for a list of Contact ID format and SIA format event codes *generated by the 2530* that can be sent to the central station receiver.

See **Appendix B** for a list of the default event codes *transmitted by the 2530*.

H. Default Event/Email Messages

Email and Text Messaging will only be available for Status events (e.g., Low DC input Voltage, Test, etc.). Events transmitted from the premises alarm panel via the 2530's Primary function will not be sent out by email or text messaging.

The information sent to the programmed email address(es) will be the raw Contact ID or SIA Event Code data plus the Zone number.

I. Completing the Installation and Testing

Once the physical installation is completed, the unit is activated from the Dealer Web Site, and programming changes are made, test the 2530 along with the alarm panel to ensure everything is functioning properly.

Test the following:

- a. Check to see that all 5 LEDs are **green**. The first 4 LEDs should be solid green, and the 5th LED should be flashing green.
- b. Trip an alarm on the alarm panel. Check that the 2530 has correctly intercepted the panel's digital dialer output and reported the event to the central monitoring station.
- c. If using the Output Relay on the 2530, go back to the Dealer Web Site and use the Switch Output Relay command to test each relay. Make sure the premises alarm panel properly detects the relay's change of state and that it reports the proper event to the monitoring central station.
- d. Finally, remove DC Power from the 2530, then trip an alarm on the premises alarm panel. Confirm that the panel detects loss of its communication path and alarms appropriately (local).
- e. Reconnect DC Power to the unit and verify proper handling of the alarm from the panel.

8. UL COMPLIANCE SECTION –Installation Recommendations

For installations which are intended to meet UL certification requirements, the following items must be adhered to during the installation for each stated certificate category.

A. Household Fire (UL 985 - Category UTOU)

1. The Model 2530 unit must be connected to an alarm panel that also holds a current UL 985 Listing.
2. Power to the Model 2530 unit must be supplied from a UL listed source or the AUX output of a panel that holds a UL985 rating.
3. The Model 2530 unit must be located within 20 feet of the alarm panel.
4. The wiring between the Model 2530 unit and the alarm panel must be in conduit.
5. All power-limited wiring must be secured a minimum of ¼ inch away from all non-power-limited high voltage wiring, and all non-power-limited high voltage wiring must be routed through a different conduit than any of the power-limited wiring or cable.
6. The Model 2530 unit can be used in conjunction with the alarm panel's DACT, or it can be the only means of off-premises communication for the alarm panel.
7. The Model 2530 unit must be programmed to send a Test signal to the central station a minimum of once every 24 hours.
8. The Model 2530 Output Relay #1 must be programmed for Loss of Cellular Service (i.e., Network Trouble Supervision), must be connected to a reporting zone on the alarm panel, and the zone must be set up as closed in the normal state and open in the off-normal state . Activation of this zone must annunciate locally.
9. The Model 2530 Output Relay #1 must be programmed for Failure to Receive ACK from the Central Station (i.e., Communications Failure), must be connected to a reporting zone on the alarm panel, and the zone must be set up as closed in the normal state and open in the off-normal state. Activation of this zone must annunciate locally.

B. Household Burglary (UL 1023 - Category NBSX, and evaluated to UL 1635 - Category AMCX)

1. The Model 2530 unit must be connected to an alarm panel that also holds a current UL 1023 Listing.
2. Power to the Model 2530 unit must be supplied from a UL listed source or the AUX output of a panel that holds a UL1023 rating.
3. The Model 2530 unit must be located within 20 feet of the alarm panel.
4. The wiring between the Model 2530 unit and the alarm panel must be in conduit.
5. All power-limited wiring must be secured a minimum of ¼ inch away from all non-power-limited high voltage wiring, and all non-power-limited high voltage wiring must be routed through a different conduit than any of the power-limited wiring or cable.
6. The Model 2530 unit can be used in conjunction with the alarm panel's DACT, or it can be the only means of off-premises communication for the alarm panel.
7. The Model 2530 unit must be programmed to send a Test signal to the central station a minimum of once every 24 hours.
8. The Model 2530 Output Relay #1 must be programmed for Loss of Cellular Service (i.e., Network Trouble Supervision), must be connected to a reporting zone on the alarm panel, and the zone must be set up as closed in the normal state and open in the off-normal state . Activation of this zone must annunciate locally.
9. The Model 2530 Output Relay #1 must be programmed for Failure to Receive ACK from the Central Station (i.e., Communications Failure), must be connected to a reporting zone on the alarm panel, and the zone must be set up as closed in the normal state and open in the off-normal state. Activation of this zone must annunciate locally.

9. Specifications

Panel to 2530 Interface	
- Line Voltage	48 VDC On-Hook
- Dial tone	350 + 440 Hz +/- 0.2%
- Distortion	All tones less than 2.0%
- DTMF twist accuracy	+/- 1 dB
- Panel tones	+/- 0.2%
- Receive level minimum	- 45 dBm
- Receive S/N minimum	20 dB
- Line impedance	600 ohms
- Ringer Equivalence	0.3 REN
- Mode	Loop start. 26 mA typical
Power	
-Input Voltage	(Uninterruptable) Class 2 Power Supply 12VDC/1.6A
- Normal Current (On Hook)	125 mA
- Maximum Current (Off Hook)	600 mA
- Radio during Transmission	
- Average Current	215-250 mA
- Peak Current	1.3 – 1.5 A
- DC Power standby current	20 mA
Radio	
- Frequencies	850/900/1800/1900 MHz
- DC Voltage	3.3- 4.5 V D.C.
- Sensitivity	-106 dB (typical)
Environmental	
- Temperature Range	-30° to +70° C
- Humidity	0 to 95% non-condensing
Physical	
- Height	2.5 inches
- Width	5.4 inches
- Depth	10.5 inches

Appendix A: Contact ID and SIA Event Codes

Following is a list of event codes that can be sent to the central station receiver for events generated by the AnyNET module and the 2530:

<i>EVENT DESCRIPTION</i>	<i>CONTACT ID EVENT CODE</i>	<i>SIA DC-03 EVENT CODE</i>
AC Fail	E301	AT
AC Restoral	R301	AR
Alarm (generic)	E140	UA
Burglary Alarm	E130	BA
Burglary Restoral	R130	BR
Burglary Tamper	E137	TA
Burglary Tamper Restoral	R137	TR
Closing	R400	CL
Fire Alarm	E110	FA
Fire Restoral	R110	FR
Fire Supervisory	E200	FS
Fire Supervisory Restoral	R200	FJ
High Temperature	E158	KA
High Temperature Restoral	R158	KR
Holdup Alarm	E122	HA
Holdup Restoral	R122	HR
Low Battery	E302	YT
Low Battery Restoral	R302	YR
Low Temperature	E159	ZA
Low Temperature Restoral	R159	ZR
Medical Alarm	E100	MA
Medical Restoral	R100	MR
Opening	E400	OP
Panic Alarm	E120	PA
Panic Restoral	R120	PR
Phone Fail	E350	LT
Phone Restoral	R350	LR
Radio Supervision Lost	E355	YC
Radio Supervision Restoral	R355	YK
Restoral (generic)	R140	UR
Service Completed	R616	YZ
Service Required	E616	YX
Telco Line Fail	E350	LT
Telco Line Restoral	R350	LR
Test	E602	TX
Trouble (generic)	E300	UT
Trouble Restoral (generic)	R300	UR
Trouble, System Peripheral	E330	ET
Trouble Restoral, System Peripheral	R330	ER

Appendix B: 2530 Default Event Codes

The 2530 is defaulted to send both the Alarm/Trouble condition and the Restoral condition for all of the events listed below. Reporting of individual events can be controlled from the Dealer Web Site.

Following is a list of the default event codes sent by the 2530:

<i>EVENT DESCRIPTION</i>	<i>CONTACT ID EVENT CODE</i>	<i>SIA DC-03 EVENT CODE</i>	<i>ZONE No. REPORTED</i>
Low Input DC Voltage	E302	YT	240
Low Input DC Restoral	R302	YR	240
Cable Supervision Trouble	E616	YX	242
Cable Supervision Restoral	R616	YZ	242
Cellular Service Loss	E355	YC	243
Cellular Service Restoral	R355	YK	243
2530 Disabled	E616	YX	245
2530 Restoral	R616	YZ	245
Watchdog Circuit Trouble	E616	YX	246
Watchdog Circuit Restoral	R616	YZ	246
Test	E602	TX	000

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INSTALLATION, OPERATION AND PROGRAMMING GUIDE**

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1600 Parkwood Circle, 5th Floor
Atlanta, Georgia 30339
888-987-5465 (888-9-UPLINK)

www.uplink.com