



Uplink[®]

5500

LTE UNIVERSAL CELLULAR ALARM COMMUNICATOR

INSTALLATION & USER'S GUIDE





LTE UNIVERSAL CELLULAR ALARM COMMUNICATOR

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LTE UNIVERSAL CELLULAR ALARM COMMUNICATOR

WARRANTY & LIMITATION OF LIABILITY

Standard 12-Month Limited Warranty

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TECHNICAL SUPPORT

Technical Support is available **Monday through Friday, 8:00 AM to 8:00 PM EST** excluding holidays. Before calling or emailing Technical Support please ensure you have read the entire installation guide.

To be able to help you, Technical Support will need you to provide:

Login name Password Serial number of the unit

UPLINK Technical Support

400 Interstate North Parkway. Suite 900

Atlanta, GA 30339

(888) 9-UPLINK, (888) 987-5465

Fax (888) 542-9105

Log in: <https://login.uplink.com>

For Customer Support, call **(888) 9-UPLINK**, or visit **www.uplink.com**



LTE UNIVERSAL CELLULAR ALARM COMMUNICATOR

DESCRIPTION

The Uplink 5500 is an “always on,” multi-purpose, FCC-certified device capable of sending and receiving alarm signals or other data over the LTE Cellular Network. When connected to an alarm system, the 5500 will send alarm signals over the cellular network to Uplink’s alarm processing center, that will forward the signals to the appropriate monitoring station and/or selected email addresses.

The 5500 can be connected to an alarm system using up to four inputs on the 5500. Each of these inputs can be set up to send a selected signal to the monitoring station. Contact ID, SIA, Modem IIe/IIIa² and 4/2 (:20 PPS) formats are supported.

The 5500 also has two configurable relay outputs to send signals to alarm panels or control other devices.

INSTALLATION STEPS

Before beginning installation: If you are not yet an Uplink dealer, register by visiting www.uplink.com and click on the **new dealer account** tab.

Step 1. Activate the system. The Uplink 5500 operates “out of the box” with most commercial panels. No additional programming or equipment is required. To activate with default functions, go to www.uplink.com, or use the Uplink Installer App, or call (888) 987-5465. Consult the Quick Installation Guide included with the 5500.

Step 2. Install the antenna on the top of the unit.

Step 3. Position the unit for maximum signal strength. Connect the unit to a 12V DC, 500mA power supply. Be sure the area is dry and free from interference of metal objects and obstructions.

Step 4. Determine network availability and signal strength.

- a) Signal strength should be one blink minimum. Relocate the unit or install a high-gain antenna if necessary.

LED INDICATIONS

DIP SWITCHES	S1 and S2	S1	S2	Input 1 Type
		OFF	OFF	Standard Input
		OFF	ON	Pulse Counter
		ON	OFF	Timed Bell
	ON	ON	Sampled Siren	
S3	Off = Input 4 Normal Operation On = Input 4 Neg Pulse causes reset			
S4	Off = Controllable Output via Website On = Normally Closed Trouble Output			
COM LED	ON	Sending Cellular Traffic		
	OFF	Not sending Cellular Traffic		
SERVICE LED	5 Blinks	Best Cellular Signal		
	4 Blinks	Very Good Cellular Signal		
	3 Blinks	Good Cellular Signal		
	2 Blinks	Acceptable Cellular Signal		
	1 Blink	Fair Signal Signal		
	OFF	Very Poor/No Signal		
NETWORK LED	OFF	Unit Not Connected		
	BLINKING	Unit Connected and Ready		
	SOLID ON	Unit in error		
	NOTE	Relocate unit if LEDs indicate- No Signal after 3 minutes with power and antenna connected.		

Table 1: LED Indications – Inside Product Label

(INSTALLATION STEPS continued next page)

Step 5. Disconnect the unit from the power supply before wiring. The standard configuration for the Uplink 5500 is to leave DIP switches S3 and S4 set to “OFF” (Input 1 triggered by 9V DC to 12V DC or an open collector). For detailed wiring instructions and alternative configurations, see UNIT WIRING on pages 8 and 9.

CAUTION: Do not connect the unit to a receptacle controlled by a switch.

CAUTION: Improper connections at the power connector may result in damage to the unit.

Step 6. Configure the unit. Set the DIP switches on the front panel of the unit according to the following table:

Detail of Dip Switch

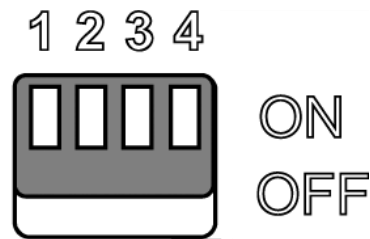


FIGURE 1: DIP SWITCHES

DIP SWITCH SETTINGS

DIP SWITCH Functionality	S1 and S2	S 1	S 2	Input 1 Type
		OFF	OFF	Standard Input
		OFF	ON	Pulse Counter
		ON	OFF	Timed Bell
		ON	ON	Sampled Siren
	S3	OFF	Input 4 Normal Operation	
		ON	Input 4 Neg Pulse causes reset	
	S4	OFF	Controllable Output via Website	
		ON	Normally Closed Trouble Output	

TABLE 2: DIP SWITCH SETTINGS

(INSTALLATION STEPS continued next page)

INSTALLATION STEPS (cont.)

Step 7. When you have finished wiring and configuring the unit, re-apply power to the unit and wait at least two minutes then test the connection to the central station by creating an alarm from the panel.

NOTE: The DIP switches are only read immediately after the unit is powered up. Always cycle the unit's power after making changes to the DIP switch settings.

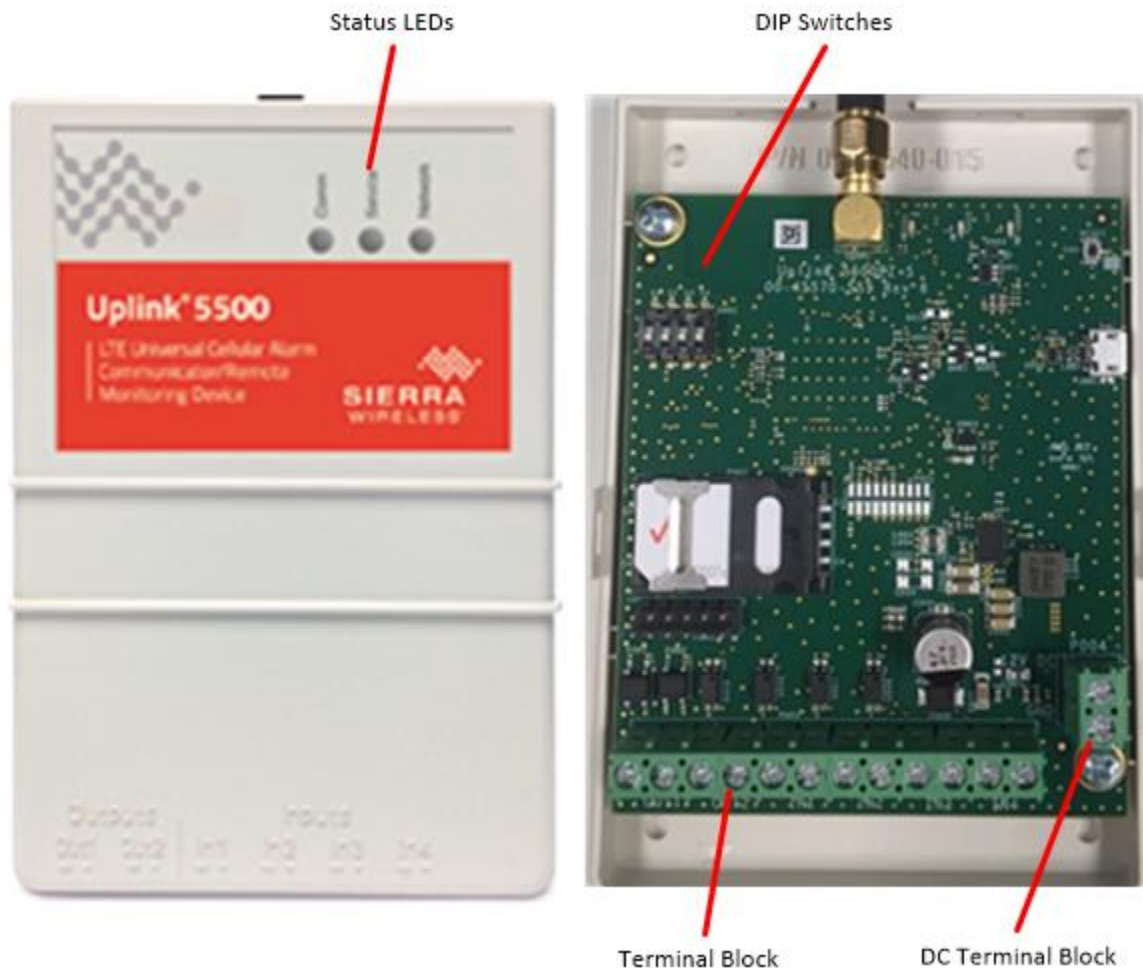


FIGURE 2: 5500 FRONT CASE AND CIRCUIT BOARD

UNIT WIRING

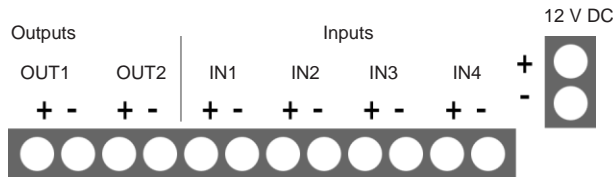


FIGURE 3: DETAIL OF CONNECTIONS

Inputs

Input 1 (Selectable Via DIP Switches)

- A. **Standard Input** - (DIP switches S1 OFF, S2 OFF) This mode configures the unit to be tripped from a DC voltage ranging from 9 V DC to 12 V DC or an open collector.
- B. **Pulse Counter** - This mode configures the unit to count 12-volt pulses. This is not intended for rapid repetitive pulses.
- C. **Timed Bell** - (DIP switches S1 ON, S2 OFF) This mode configures the unit to be tripped from a DC voltage ranging from 9 V DC to 12 V DC. The unit reads a pulsed voltage as a fire signal and a steady voltage as a burglary signal. It may be necessary to place a 1K Ohm resistor in parallel to prevent false alarms when using panels with supervisory voltage on the bell circuit. Some panels with supervised bell circuits may require a 1K Ohm resistor in the circuit. Contact Technical Support for further details.
- D. **Sampled Siren*** - (DIP switches S1 ON, S2 ON) This mode configures the unit to be tripped from a siren driver or a panel with a built-in siren driver. The unit reads a steady tone as a fire signal and a yelping tone as a burglary signal.

***NOTE:** The input assumes that a speaker is connected to the panel. If you are not using a speaker we recommend using a Timed Bell instead of Sample Siren. This is an option on most panels.

Input 4

Neg Pulse RESET - (DIP switch S3 ON) A trigger of INPUT 4 from high-to-low and back-to-high causes the 5500 to reset. The high-to-low-to-high must be held for at-least 100 ms.

***Inputs 2, 3, and 4 (and Input 1 if Standard Type)**

(UNIT WIRING continued next page)

UNIT WIRING (cont.)

Voltage Trip

Inputs 2, 3, and 4 (and 1 if set for standard input) can be tripped by applying 12 V to the + input and 0 V to the - input. A signal must be continuously present for 500 ms.

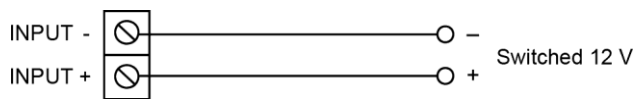


FIGURE 4: WIRING EXAMPLE FOR VOLTAGE TRIP

Open Collector

Inputs 2, 3 and 4 (and 1 if set for standard input) can be tripped by applying 12 V to the + input and the Open Collector output of the panel to the - input. A signal must be continuously present for 500 ms.

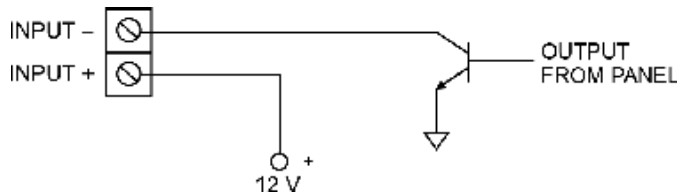


FIGURE 5: WIRING EXAMPLE FOR OPEN COLLECTOR TRIP

Outputs

Outputs can be used to signal communication trouble to the alarm panel or can be used to control other devices at the installation site. Outputs 1 and 2 are dry contact relays rated for a maximum of 100 mA at 24 V DC and are in the normally closed condition (selectable to NO).

Output 1

- A. **Controllable Output via Website** - (DIP Switch S4 OFF) This mode configures the unit to accept commands over the air (OTA) to open or close the relay.
- B. **Normally Closed Trouble Output** - (DIP Switch S4 ON) This mode configures the unit to keep the relay closed. The duration is a configurable setting OTA.



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(UNIT WIRING continued next page)

UNIT WIRING (cont.)

Output 2

Available for OTA commands unless you plan on using Uplink Remote. If you plan on using Uplink Remote, this output is used for the Key Switch Zone (arming and disarming the panel).

Power

Power Supply - The customer-supplied 12 V DC power supply/battery charger should be capable of supplying 500 mA peak for brief high current demands of the radio during transmission.

ANTENNA SPECIFICATION

The following types of antennas should be used with this unit:

Antenna type: External Dual Band $\frac{1}{4}$ wave antenna (included with unit) Maximum Antenna Gain: 3.0 dBi

Antenna connector: SMA

Antenna type: External Dual Band $\frac{1}{4}$ wave antenna Magnet mount (available separately)

Maximum Antenna Gain: 3.5 dBi Antenna connector: SMA

Cable length and loss: 3 meter, RG-174, total loss 2.8 dB

FCC & INDUSTRY CANADA REGULATORY COMPLIANCE

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. If not installed and used in accordance with the instructions, it can cause harmful interference to radio communications. Interference may 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, 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 to an outlet on a circuit different from the one to which the receiver is connected.
- Consult the dealer or an experienced technician for help.



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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 guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this unit complies with the FCC guidelines and these international standards. 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 UNIT MUST PROVIDE A SEPARATION DISTANCE OF AT LEAST 20 CM FROM ALL PERSONS AND MUST NOT BE CO-LOCATED OR OPERATED IN CONJUNCTION WITH ANY OTHER ANTENNA OR TRANSMITTER.



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UPLINK 5500 LTE UNIVERSAL CELLULAR ALARM COMMUNICATOR INSTALLATION, OPERATION AND PROGRAMMING GUIDE

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