# Uplink<sup>™</sup>

# **Uplink**<sup>™</sup> MODEL 2500 UNIVERSAL GSM ALARM COMMUNICATOR



## FOR SALES & **PRODUCT INFORMATION**

Uplink 1600 Parkwood Circle Suite 500 Atlanta, GA 30339 (888) 9-UPLINK sales@uplink.com www.uplink.com

## FOR TECHNICAL SUPPORT

Please visit our website at www.uplink.com.

# **INSTALLATION & USER'S GUIDE**

Hn	link	
WIRELESS ALA	link 2500 ™ COMMUNICATOR	1
-	/	_

Input 1 Standard S3 off, S4 off Input 1 Pulse Ctr S3 off, S4 on Input 1 Timed Bell S3 on, S4 off



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Product ID: 20214251334001

# 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 OPERATING IN CONJUNCTION WITH ANY OTHER ANTENNA OR TRANSMITTER.

# **Uplink**<sup>\*\*</sup>

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# LIMITED WARRANTY – UPLINK Devices

Uplink warrants, to parties purchasing Uplink equipment (including, without limitation, the Uplink Model 2500) 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.

## 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 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.

**Power Supply** - The customer-supplied 12 VDC, 2 A rated power supply must be connected to the unit at the 12 V terminal block connector. Terminate the positive voltage from the power source to the "+" connector of the unit and terminate the ground of the power source to the "-" connector. The power supply must be capable of delivering at least 2 A.

**Serial Interface** - The Unit's six-pin connector provides for network retransmission of user-defined data packets via the built-in RS-232 port.

## ANTENNA SPECIFICATION

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

Antenna type: External Dual Band ¼ wave antenna Maximum Antenna Gain: 3.0 dBi Antenna connector: SMA Antenna type: External Dual Band ¼ wave antenna Magnet mount Maximum Antenna Gain: 3.5 dBi Antenna connector: SMA Cable length and loss: 3 meter, RG-174, total loss 2.8 dB

# 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 installation guide completely.

Technical support requires you to provide:

- Login name
- Password
- Serial number of the unit

These items are required in order to assist you.

### **UPLINK Technical Support**

1600 Parkwood Circle, Suite 500 Atlanta, GA 30339 1-888-9-UPLINK Log in: https://login.uplink.com

For Customer Support, call 1-888-9-UPLINK, or visit www.uplink.com

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# DESCRIPTION

The Uplink 2500 utilizes the GSM (Global Standard for Mobile Communications) network and transmits SMS (Short Message Service) signals.

This Uplink 2500 is an always on multi-purpose FCC certified device capable of sending and receiving digital data over the GSM Network. The operating frequencies are in the 850 MHz and 1900 MHz bands. The unit can be powered using a nominal 12 VDC supply and the transmitter is capable of operating as a class 4 (2 W output) on 850 MHz and Class 1 (1 Watt output) on 1900 MHz transmitter. The unit comes with a dual band quarter-wave antenna with frequency bands of 850 MHz and 1900 MHz. The four discrete inputs are triggered by DC voltage signals.

# UNIT WIRING (cont.)

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



FIGURE 4: Wiring example for voltage trip

**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.

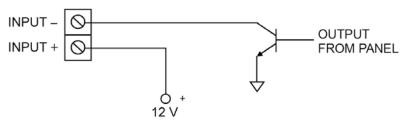


FIGURE 5: Wiring example for open collector trip

**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.

**Outputs** - Outputs 1 and 2 are dry contact relays rated for a maximum of 1 A at 24 VDC, and are in the normally open condition. The outputs can be used to control other devices at the installation site.

## UNIVERSAL GSM ALARM COMMUNICATOR

# UNIT WIRING

The location of the DIP switch, terminal block connections, network port, serial interface, and status LEDs of the unit are shown in Figure 2 on page 7. Further detailed drawings included below.

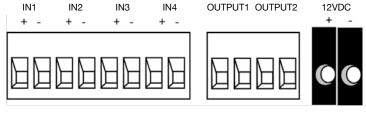


FIGURE 3: DETAIL OF CONNECTIONS

#### Input 1 (Selectable Via DIP Switches)

Standard Input - (DIP switches S3 OFF, S4 OFF) This mode configures the unit to be tripped from a DC voltage ranging from 9 VDC to 12 VDC or an open collector.

**Timed Bell** - (DIP switches S3 ON, S4 OFF) This mode configures the unit to be tripped from a DC voltage ranging from 9 VDC to 12 VDC. 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 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 1KohM resistor in the circuit. Contact Technical Support for further details.

**Sampled Siren** - (DIP switches S3 ON, S4 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 bell trip instead of a siren. This is an option on most panels.

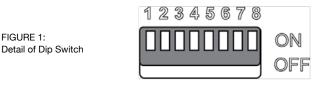
# INSTALLATION STEPS

- 1. For new customers, simply register to become an Uplink dealer by visiting the website at www.uplink.com and clicking on the new dealer account tab.
- 2. The 2500 must be activated and configured from the Uplink website at www.uplink.com or ex.uplink.com for web-enabled mobile phones.
- 3. Install the antenna on top of the unit.
- 4. Before permanently installing the unit, test signal strength by connecting a 12 VDC, 2 A capable power supply.
- 5. Upon initial power up, observe the status LEDs located on the Unit 's front panel to determine unit and network status:

ONS	NETWORK		
TABLE 1: LED INDICATIONS	Fast Blink	No networks available	
	Slow Blink	GSM (SMS) network available	
	NOTE	If after waiting for at least three minutes, the unit continues with a fast blink, call Uplink customer support at 1-888-987-5465 to check with network availability in your area.	
	SERVICE		
	Off	No GSM service	
	Slow Blink	< = -111dBm	
	Fast Blink	Between -109dBm and -51dBm	
	ON	> = -51dBm	
	COMMS		
	Intermittent Blink	Active (internal device communications only)	



- 6. After successfully testing the unit, disconnect all power before installation.
- 7. Mount or place the unit in an area with the best signal strength that is dry and free from metal objects and obstructions. It is recommended that the unit be installed above grade level.
- 8. Wire unit per the Unit Wiring section on page 9.
- 9. The Uplink 2500 is configured via the DIP switches on the front panel.



Set DIP switches according to the following table:

TABLE 2: DIP SWITCH SETTINGS	SWITCH #	SETTINGS		
	S1	reserved (set to off)		
	S2	reserved (set to off)		
	S3 and S4	S3 OFF OFF ON ON	S4 OFF ON OFF ON	Input 1 Type Standard Input Pulse Counter Timed Bell Sampled Siren
	S5	OFF	Output 1 Normal Operation	
		ON	Output 1 Trouble	
	S6	reserved		

# INSTALLATION STEPS (cont.)

10. After attaching power, wait at least 2 minutes and then perform a central station test to verify correct operation.

FIGURE 2: MODEL 2500

