Duetech Beres Ltd.

STP Lite

'Smart Terminal Plus' Lite

Stand Alone GSM/GPRS Multi-Purpose Controller with Logic Flow Lite Configuration Software

User Manual

Revision 1.02

Notes

The reader is advised to read this manual carefully and to understand its contents before using any devices.

Warranty claims for damage arising from failure to observe the instructions given in this manual are invalid. We accept no liability for consequential damage arising from the failure to observe the contents of this manual.

Duetech Beres reserves the right to make technical modifications or alterations to this manual at any time without prior notice.

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Chapter 1: Introduction

The **STP (Smart Terminal Plus) Lite** is a user-friendly, general-purpose GSM/GPRS cellular programmable controller. The **STP Lite** can be used for a wide variety of purposes: agriculture, home automation, or security. The **STP Lite** accepts one digital input and has one dry-contact (relay) output.

Section 1.1 About This Manual

This manual will guide you through the setup and major uses of the **Smart Terminal Plus Lite (STP Lite)**, a powerful remote-control and monitoring device. This manual includes:

- A list of the uses of the **STP Lite**
- **STP Lite**'s features and benefits
- A general description of the **STP Lite**
- Instructions for installing the **STP Lite** hardware
- Instructions for installing the **Logic Flow Lite** software
- Instructions and examples of using the **Logic Flow Lite** interface

Section 1.2 Uses of the STP Lite

The **STP Lite** owes its name to the fact that it employs a minimal number of inputs and outputs. However, this poses no limitation on the range of uses for the **STP Lite**. You can employ the **STP Lite** in:

- Security
- Home and Industrial automation
- Gate Control
- General Warning System
- Gateway Telemetry solutions
- Agriculture
- Climate Monitoring
- Cooling Control
- Automation

Section 1.3 Safety Advice

The **STP Lite** is designed to be used only under the prescribed conditions. Ensure that all the specifications stated in this manual are observed. Tampering with the hardware or software, or failure to observe the warnings stated in this manual may lead to serious physical injury or damage to the device. We assume no liability in such cases, and any warranty claims will become void.
The safety regulations specified for the device must be observed during the installation, maintenance and use of the device.

This manual contains special instructions that are important for the safe and proper handling of the device. The warning symbols you will encounter in the manual have the following meaning:

	**DANGER:** Indicates warning of possible danger to the life and health of the user if the relevant safety measures are not taken.

	**ATTENTION:** Indicates warning of possible damage to the device, software, or other material damage if relevant safety measures are not taken.

Section 1.4 STP Lite's Features and Benefits

Some unique features of the **STP Lite** are:

- Quad-Band GSM SMS/GPRS—allowing you to access and control the **STP Lite** device via your cellular phone or the Internet
- An RS232 interface for direct communication with the **STP Lite** controller, as well as for user-defined purposes (PLC, PC, GPS to any RS232 device)
- An event report, which allows you to make the **STP Lite** send a report to you via Serial Communication. (RS232). This way, the user can create Word/Excel reports based on the data from the STP.
- Internal Li-Ion rechargeable backup battery, for sending a power failure alarm (via SMS or GPRS) in case the main power supply is cut off.

Accompanying the **STP Lite** is the **Logic Flow Lite** Configuration software package. Some features of the **Logic Flow Lite** program are:

- It allows you to program the **STP Lite** device to control a system and do the desired controller tasks quickly and efficiently
- It allows you to monitor your system.

Chapter 2: Overview

This chapter provides a brief Overview of the **STP Lite** and includes the following:

- General Description
- Hardware Description

Section 2.1 STP Lite General Description

The **STP Lite** is a stand-alone, multipurpose terminal with extended logic control, with cellular capabilities. The **STP Lite** accepts one digital input and has one dry-contact (relay) output.

STP Lite Dimensions

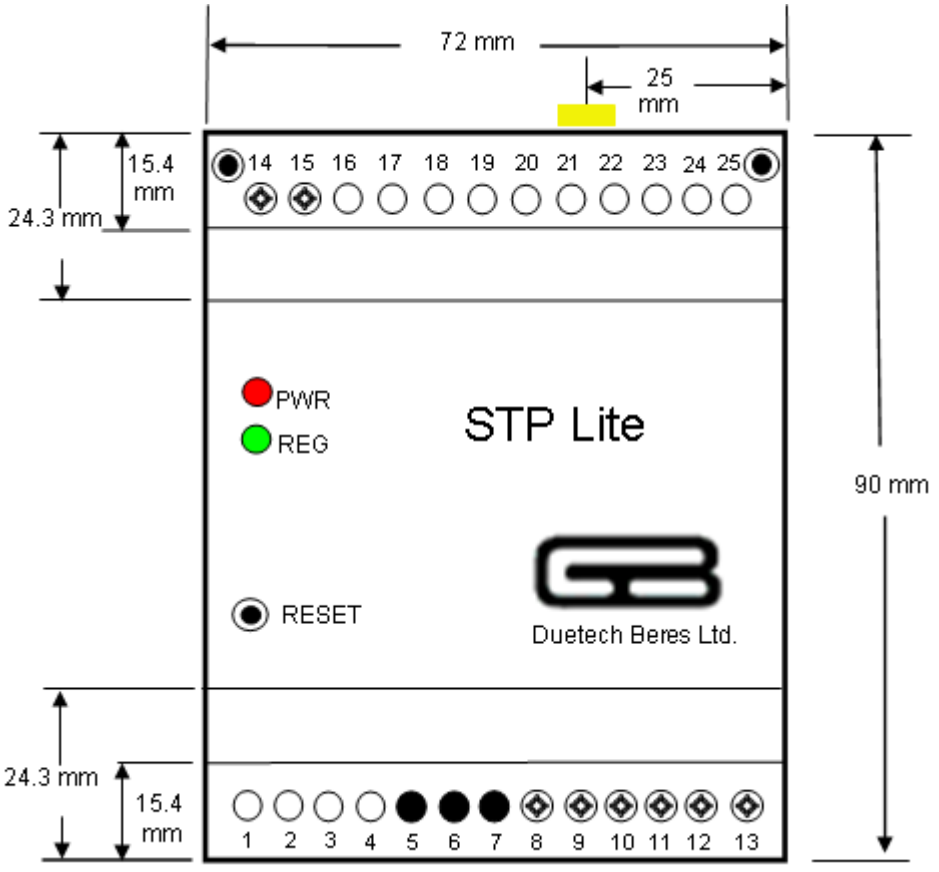


Figure 1: Front View of the STP Lite

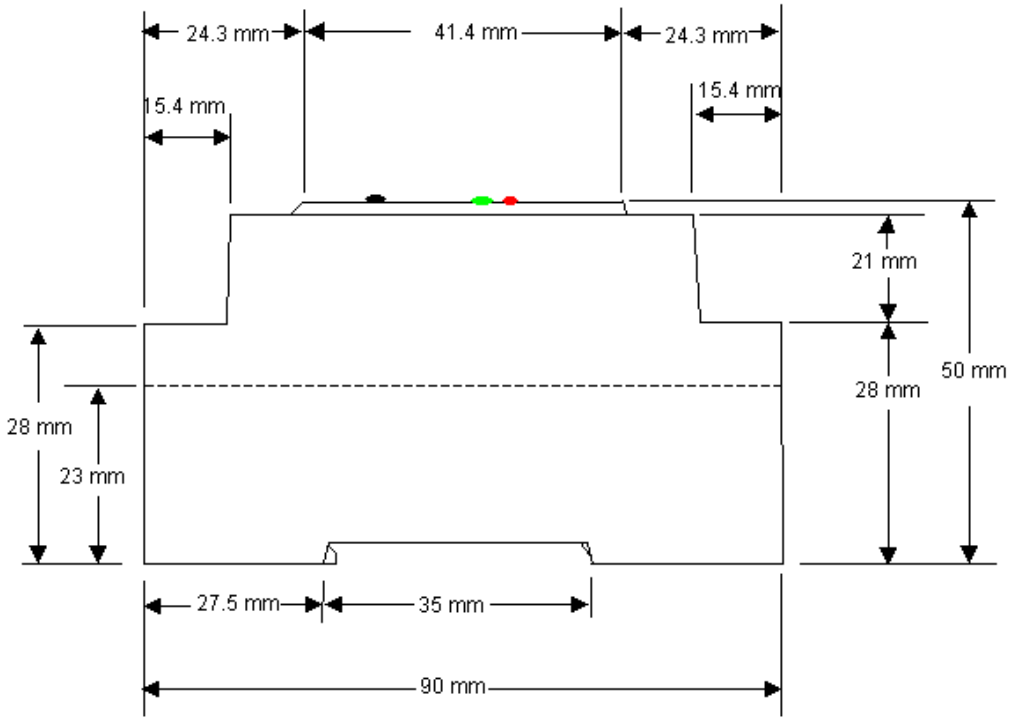
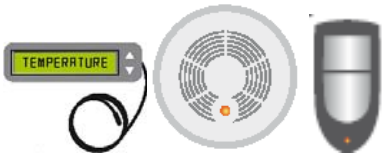
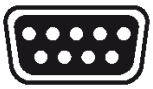


Figure 2: Side View of the STP Lite Showing Dimensions

Inputs

The **STP Lite** supports 8 different types of input events, four external, and four internal:

Table 1: STP Lite Inputs

External Input	Description
	**DIGITAL INPUT**: A digital sensor. These can include: • Thermostat • Smoke detector • Motion sensor
	**SMS**: An SMS message from your mobile phone.
	**INCOMING CALL**: Allows the **STP Lite** to respond to an incoming call (the STP will reject the incoming call and only use the Caller ID, if needed).
	**RS232**: An RS232 message from any capable device (for example, a computer or a PLC).

In addition, there are four other input events that the **STP Lite** essentially can send to itself. These are shown in the following table:

Internal Input	Description
	**TIMER:** Triggers as timer event occures.
	**OUTPUT:** To have the **STP Lite** respond to an output change caused by a particular event.
	**DISARM:** triggers when disarm status has changed.
	**STARTUP:** Performs the specified output event when the device is started, or if the user presses the Reset button.

Output Events

The **STP Lite** allows for 10 different types of output events and messages. Six of the outputs are to external devices, while four are internal messages that the **STP Lite** employs itself. The six outputs to external devices are illustrated in the following table:

Table 2: Outputs from STP Lite

Output to External Device	Description
	**DIGITAL OUTPUT**: Dry contact output that can be used for general control tasks.
	**SMS**: An SMS message to your mobile phone.
	**GPRS**: A GPRS message to your TPC/IP Internet server.
	**OUTGOING CALL**: Outgoing call to a predefined phone number. The **STP Lite** will make the call and hang up after one ring.
	**DISARM**: disables/enables all output events.
	**RS232**: An RS232 message to any capable device (for example, a computer PLC).

The other four outputs are shown in the following table:

Output	Description
	**TIMER--**used to set up a defined amount of time before timer is triggered.
	**RESET**--Resets the device upon receiving the specified input.
	**BUZZER**--Makes the **STP Lite** unit emit a buzz.
	**ALARM**--Makes the **STP Lite** unit emit a high pitched alarm sound.

Hardware Description

The **STP Lite**, as the name implies, is a simplified model of the Duetech Beres controllers. Here is a brief summary of the hardware the **STP Lite** employs:

- **Packaging**: The **STP Lite** is packaged in a small (72 x 90 x 50 mm) polystyrene case. The casing allows for a DIN rail mount, to insure ultimate safety and stability of the device.
- **Input and Output**: The **STP Lite** allows for one digital input (between 0-24 V DC) and one dry-contact output (a relay).

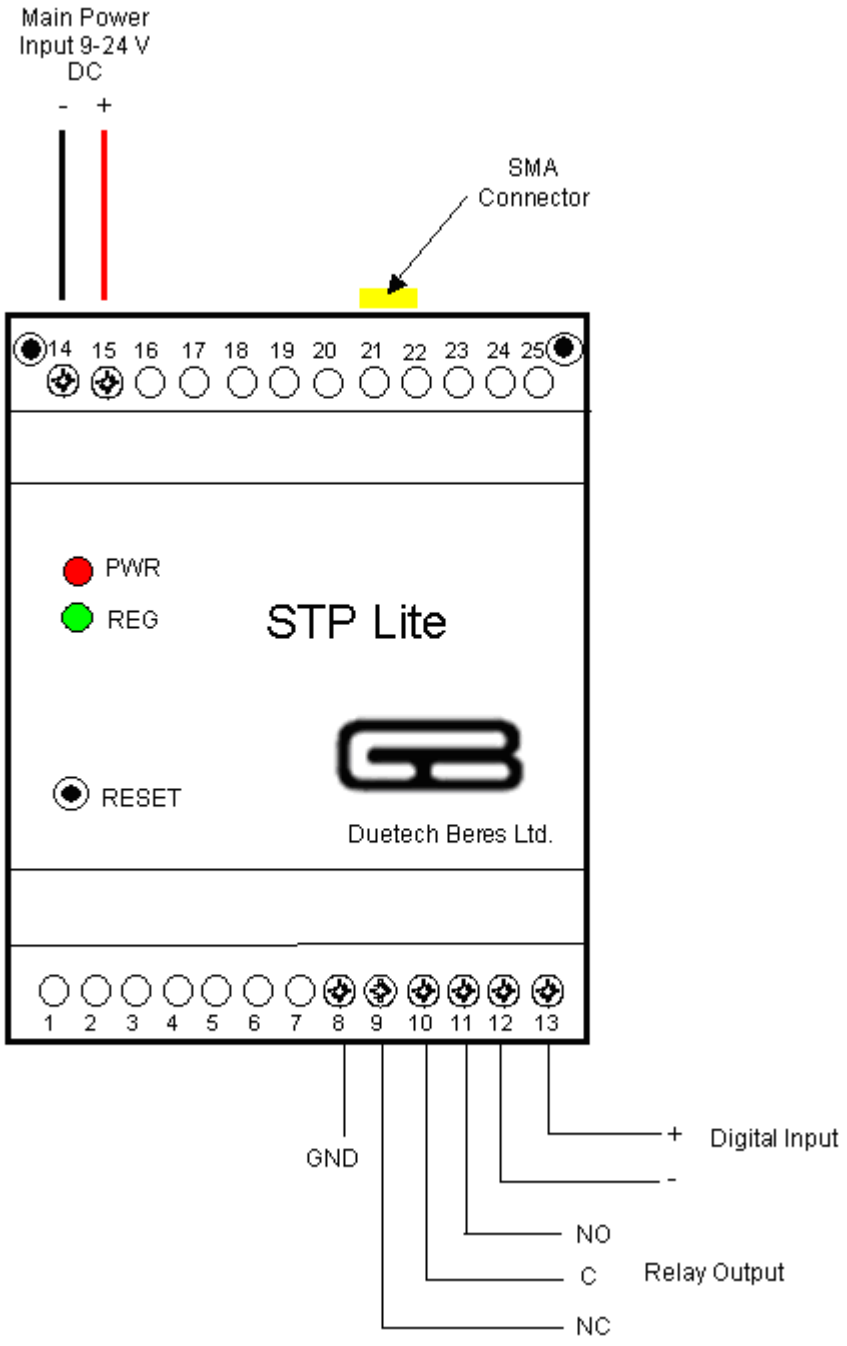


Figure 3: STP Lite Input and Output

- **Durability**: The **STP Lite**'s operating temperature is between -30°C to 85°C, allowing it to withstand the harshest conditions.
- **GSM technology**: The **STP Lite** device is based on GSM/GPRS network therefore a SIM card (not included in the **STP Lite** kit) must be inserted before applying power.
- **Programmable:** The **STP Lite** is a **programmable controller**: you program its logic by means of the **Logic Flow Lite** software, and write the commands to the device. An RJ45 cable communicates with the **STP Lite** to write the commands from the serial port on your computer to the **STP Lite**.
- **Indication LEDs:** The **STP Lite** has two indicator LEDs: a red LED indicating power supply to the device and device's processing, and a green LED indicating whether the device is registered with the cellular network.
- **Backup Battery:** The **STP Lite** also features an internal rechargeable Li-ion backup battery, which allows it to send a power failure alarm, either via SMS or GPRS, in the event that the 9-24 V DC main power fails.
- **Reset button:** The **STP Lite** also features a reset button.

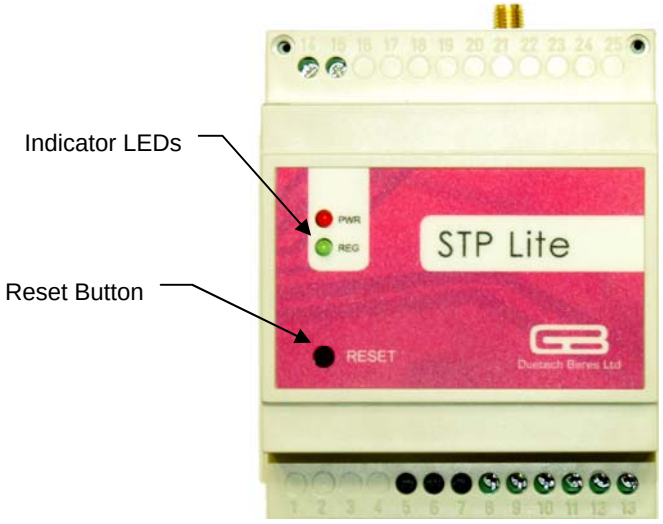


Figure 4: Front view of STP Lite, showing placement of indication LEDs and Reset Button

Chapter 3: Installing the STP Lite

Installing the **STP Lite** is a simple procedure that should take no more than a few minutes. This chapter contains instructions for installing both hardware and software.

Section 3.1 Package Contents

The **STP Lite** unit comes in a kit with the accessories listed in the table below. The table lists the contents of the kit and their part numbers.

Table 3: Package Contents

Part	Description	QTY	P/N
	STP Lite Controller Unit	1	STPL0001
	Power Supply 12 V DC Voltage Transformer	1	PS220121
	DIN Rail	1	STP00701
	RJ45 Cable—Connects the **STP Lite** to the serial RS232 port of the computer	1	RJ45RJ45
	RJ45 to DB9 converter—The DB9 converter allows a connection to the 9-pin serial port of the computer	1	CORJ459F
	GSM Antenna	1	AP001A00
	GSM Antenna 90 deg	1	RUB009A
	CD of Documentation and **Logic Flow Lite** installation software	1	CDR0001

Section 3.2 Hardware Installation

The installation of the **STP Lite** can be completed in minutes. You will need a pocket screwdriver (not supplied in the kit) to attach the power supply, digital input and relay output—a 6-mm wide Phillips or flathead screwdriver will do.

Mounting the STP Lite Unit

Mount the **STP Lite** by pushing or snap-fitting it onto a DIN rail (top-hat rail 35 mm). Pull out the black tab on the **STP Lite** device using a screwdriver, and snap the device onto the DIN rail. Ensure that the retaining mechanism of the **STP Lite** snaps cleanly and securely onto the DIN rail.

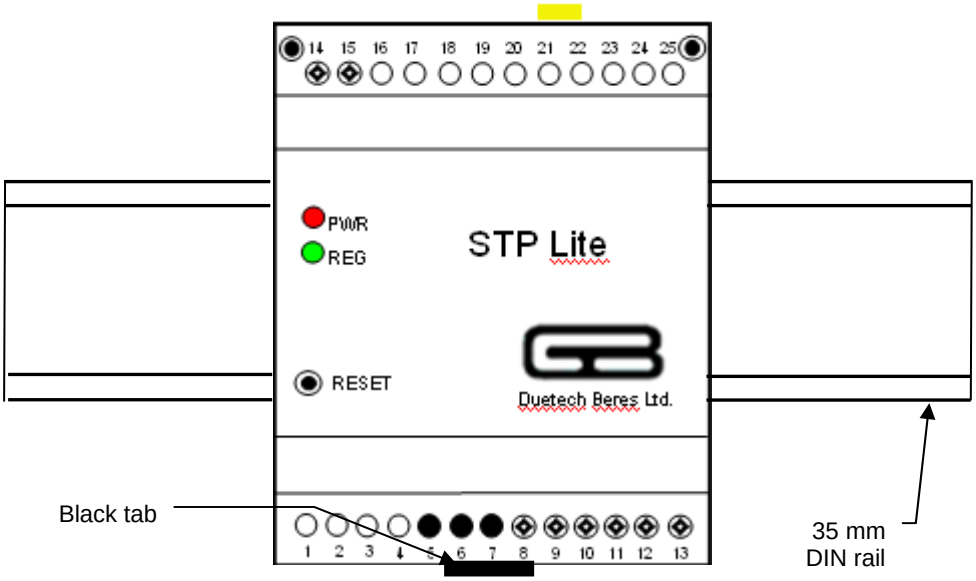


Figure 5: Top view of STP Lite attached to DIN rail

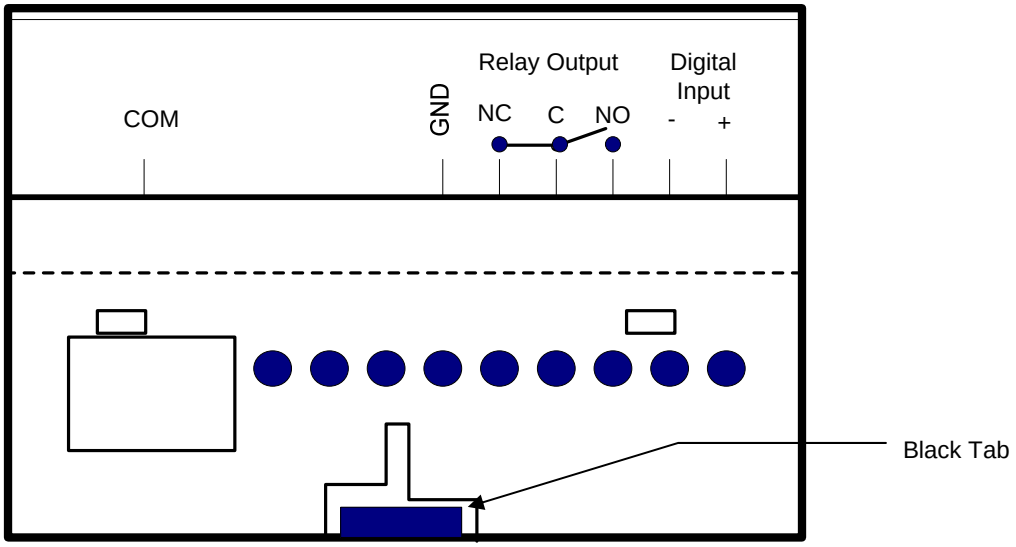


Figure 6: Side view of STP Lite

	**ATTENTION:** Do not force the **STP Lite** onto the DIN rail. Forcing the device on the rail may crack the black tab or the **STP Lite** casing, and may seriously compromise the stability of the device.

	**DANGER:** • The device must only be used in rooms that are dry and clean. Protect the device from humidity, water or heat. • The device must not be used in environments containing flammable gases, fumes or dust. • Do not subject the device to shock or severe vibrations.

Connecting the GSM Antenna

Screw the GSM antenna (included with the **STP Lite** device) onto the **STP Lite**'s antenna SMA connector.
The antenna serves the same purpose as the antenna of any cellular phone. The antenna must be attached for optimal performance of the device.

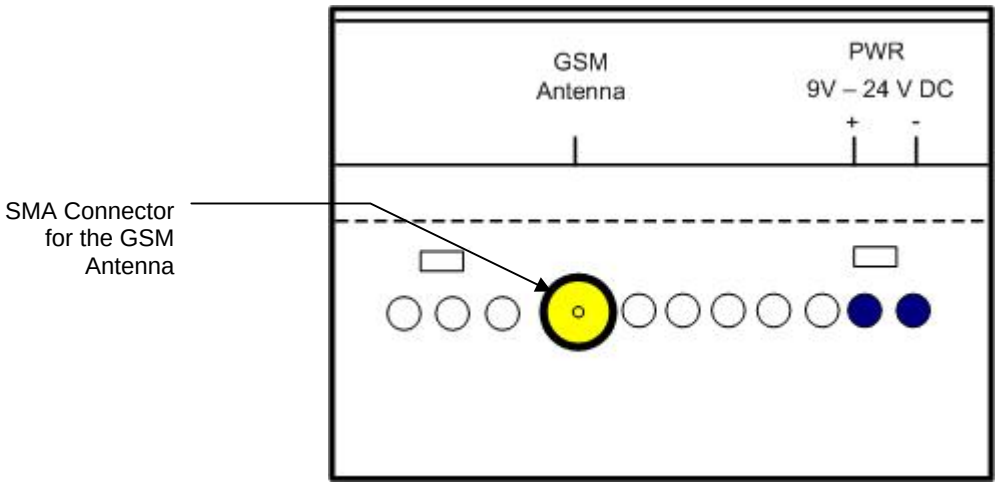


Figure 7: Side View of STP Lite Showing Antenna Connector

⚠	**ATTENTION:** Detaching the antenna while the **STP Lite** is powered on may damage the device.

Installing the SIM Card

Open the **STP Lite** casing by gently pushing in the two tabs at the top (where the GSM Antenna is attached) or bottom (where are the attachments for the digital output and input) of the device.

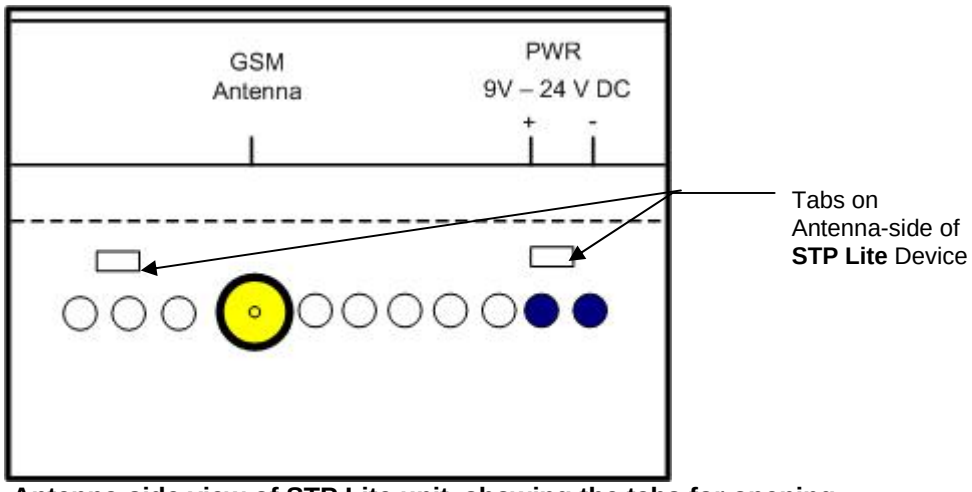


Figure 8: Antenna-side view of STP Lite unit, showing the tabs for opening the device

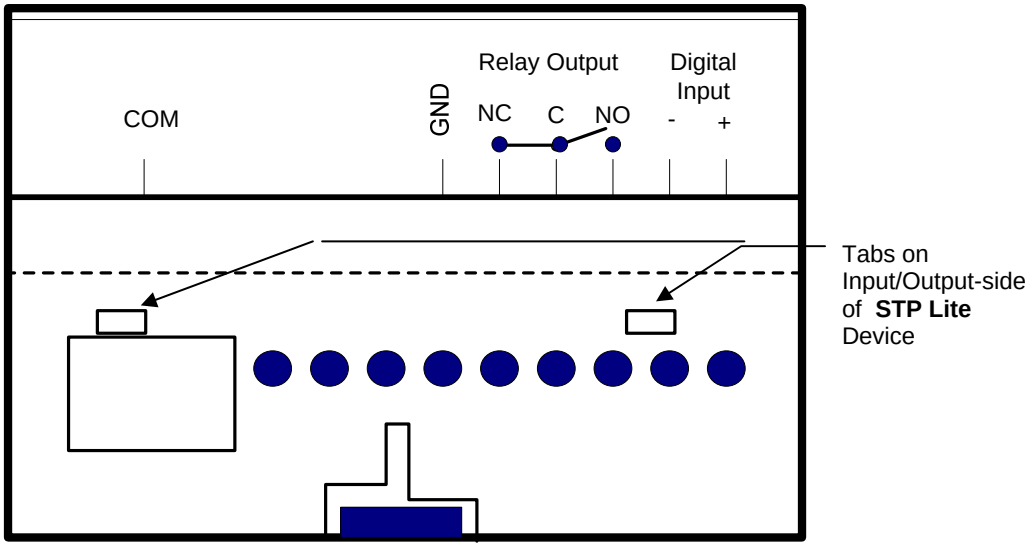


Figure 9: Input/Output side view of STP Lite unit

Place a SIM card in the SIM card holder.

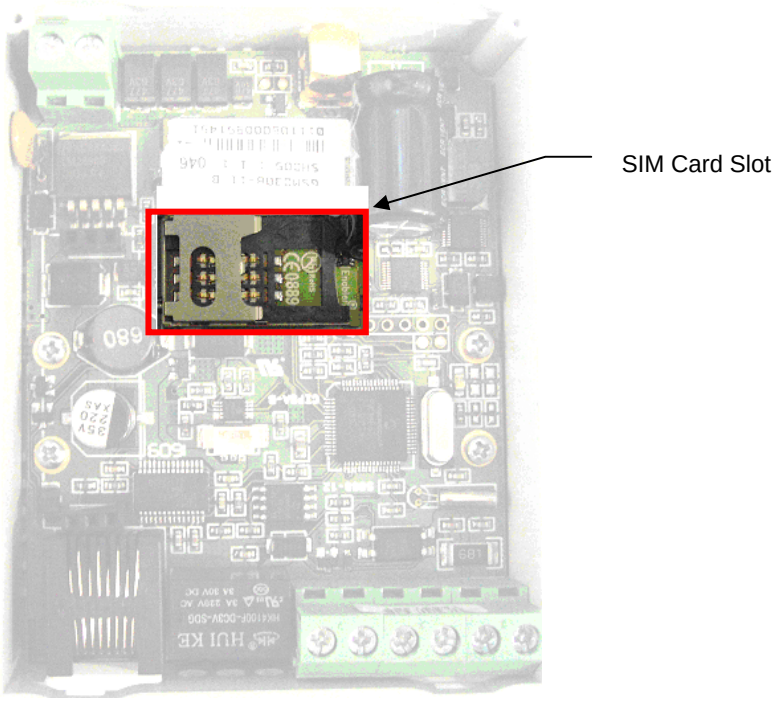


Figure 10: Inside of STP Lite unit, showing the slot for the SIM card

⚠	**ATTENTION:** • Do not insert or remove the SIM card when the power supply or backup battery is attached. Doing so might result in damage or loss of data on the SIM card! • Avoid touching the contacts of the SIM card. The SIM is sensitive to electrostatic discharge. • If you are installing a used SIM card, insert the SIM in a mobile phone first to ensure that the SIM doesn't contain any saved SMS messages. These messages may cause the **STP Lite** to malfunction.

Connecting the RJ45 cable

Connect the RJ45 cable (supplied with the **STP Lite**) to the **STP Lite** unit via the socket labeled "COM".

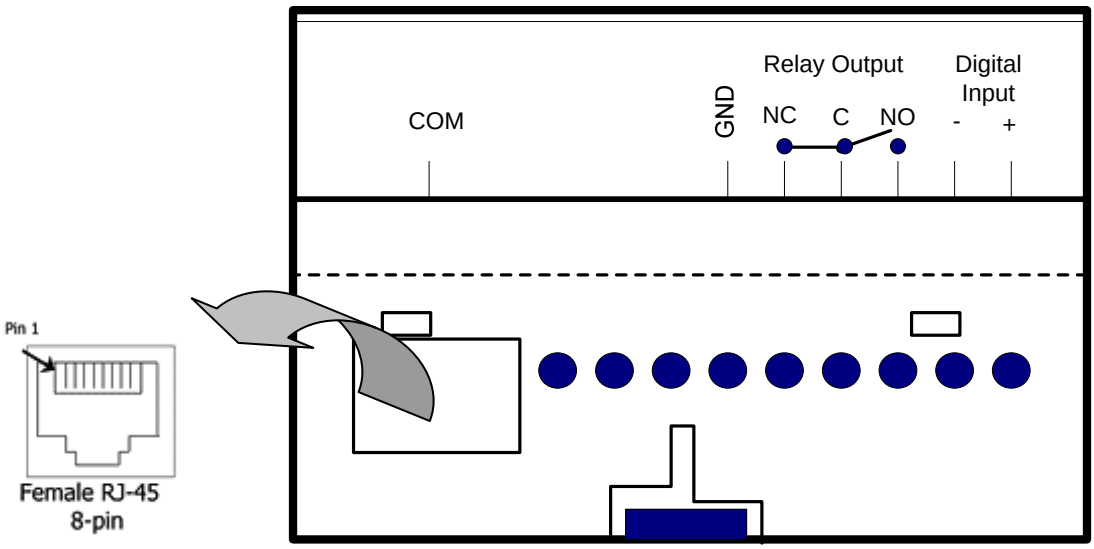


Figure 11: View of STP Lite, showing the RJ45 socket (COM)

Attaching the RJ45 to DB9 Adapter

Attach the RJ45 to DB9 adapter the 9-pin, RS232 port on your computer.

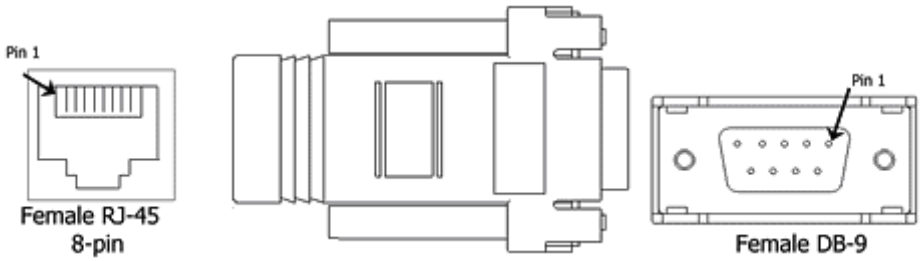


Figure 12: RJ45 to DB9 Adaptor

Hook up the **STP Lite** to your computer by inserting the other end of the RJ45 cable into the adapter.

Attaching the Relay Output

The Smart Terminal Plus Lite has one relay (dry-contact) output. The output can be configured as either Normally Open (NO) or Normally Closed (NC). The other lead of the relay output should be connected to the C (Common) connection.

⚠	**ATTENTION:** • When attaching the inputs and outputs, be sure to use wire within the range of 24-12 AWG (.205 - 3.31 mm^2 gauge).

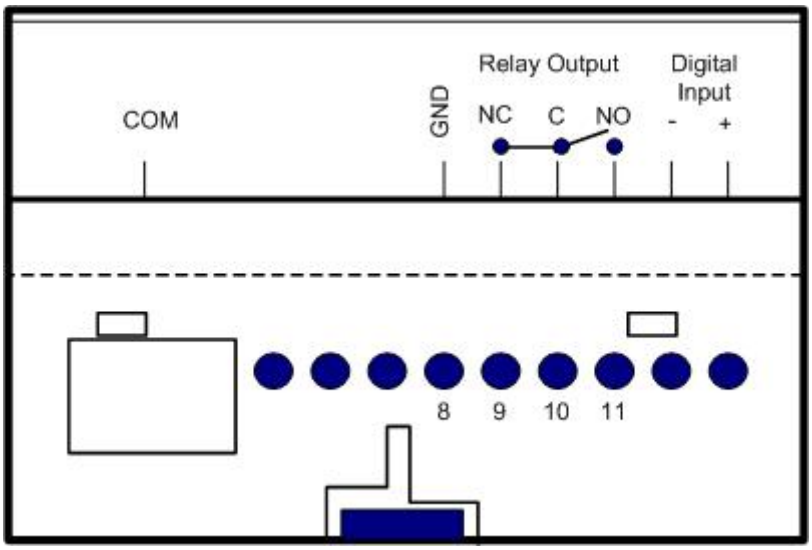


Figure 13: Input-Output side of STP Lite, illustrating where to attach the relay output

.

The terminal blocks used by the relay output are enumerated in the following table:

Table 4: Ports for Attaching the Relay Output

Terminal Block Number	Purpose
Hole 8	Ground
Hole 9	**NC—Normally Closed**. Disconnects the circuit when the relay is activated. Connects the circuit when the relay is inactive.
Hole 10	**C—Common**
Hole 11	**NO—Normally Open**. Connects the circuit when the relay is activated Disconnects when the relay is inactive.

The **STP Lite** device can be used to control digital output. In the following illustration, there are two loads attached to the STP—one to the Normally Open terminal, and one to the Normally Closed terminal. Upon receiving the specified input, the load attached to NO will be part of a complete circuit, whereas the load attached to NC will be disconnected.

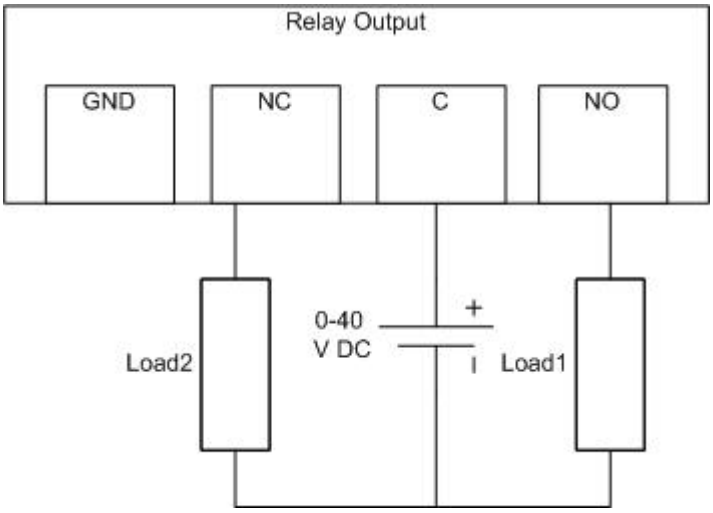


Figure 14: Simple circuit illustrating the STP Lite Attached to Two Loads

The following circuit illustrates another use of the relay output. The Lamp is connected to the Normally Open terminal block, and the power source for the lamp is connected to Common. Upon receiving the digital input, the relay output's Normally Open terminal will close, turning the lamp on.

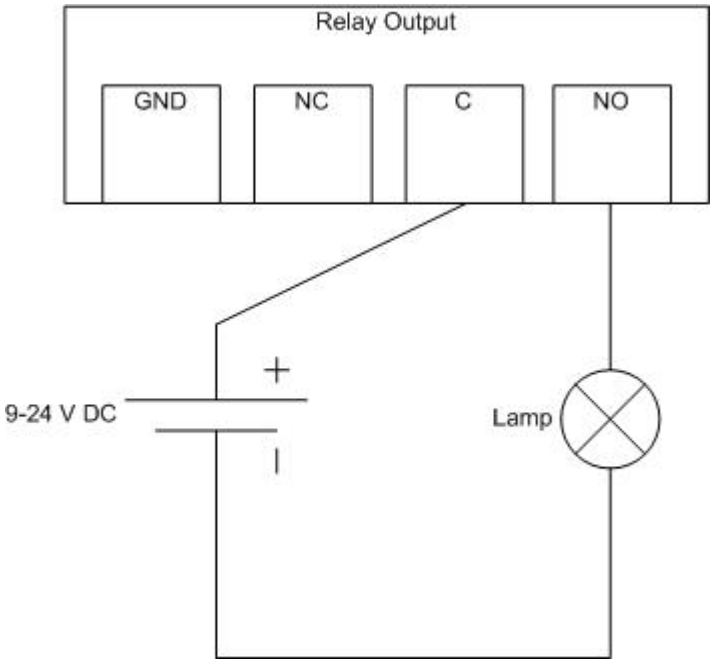


Figure 15: Simple circuit illustrating the use of the relay output

Installing the Digital Input

The **STP Lite** accepts one digital input that must be within the range 0-24 V DC.

⚠	**ATTENTION:** Be certain not to exceed the maximum input voltage of 24 V DC. Exceeding this value may cause irreparable damage to the **STP Lite** unit!

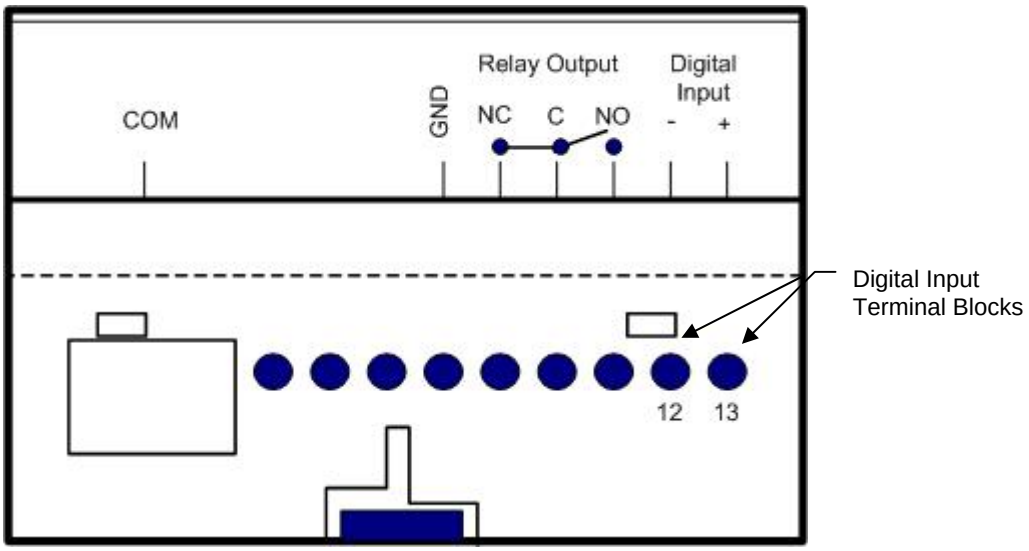


Figure 16: Input-Output side of STP Lite, illustrating where to attach the digital input to the STP Lite

The following table illustrates the placement of the Digital Input leads:

Table 5: Terminal Blocks for Attaching the Digital Input

Terminal Block Number	Purpose
Hole 12	- (negative or ground)
Hole 13	+ (positive)

Connecting the Power Supply

Once you have completed all the other installation steps, you can attach the power supply to the **STP Lite** unit.

The **STP Lite** operates on the range between 9-24 V DC. The **STP Lite** kit contains a transformer that converts the wall current to 12 V DC. The connector has two bare wires, one to be connected to the negative terminal, and one to the positive terminal of the **STP Lite** unit. The striped wire is connected to the negative (or "ground") terminal, and the solid black wire from the transformer is connected to the positive terminal.

The **STP Lite** unit has numbered rows of terminal blocks. Insert the leads into the appropriate terminal blocks on the side of the **STP Lite** unit, using a 6-mm wide flathead or Phillips screwdriver.

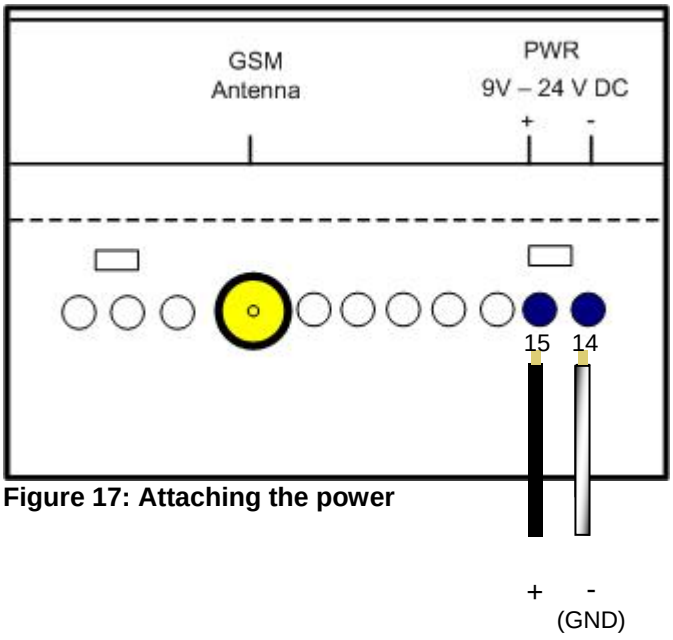


Figure 17: Attaching the power

The following table shows the correct connections of the transformer to the **STP Lite**.

Table 6: Terminal Blocks for Attaching the Power Supply to the STP Lite

Terminal Block Number	Purpose
Hole 14	GND lead from transformer
Hole 15	Positive power supply lead from transformer

ATTENTION:

- Ensure the correct polarity of the power supply terminals.
- If using another DC voltage source, be certain not to exceed 24 V. This will cause irreversible damage to the **STP Lite** unit.

DANGER:

- The device should be wired in a de-energized state.
- Regularly check the live cables to which the devices are connected for faults or breaks in the insulation. If any such fault is found, immediately turn off the device and replace the wiring.

Section 3.3 STP Operation

Status LEDS

The **STP Lite** has two status LEDs to indicate that you have installed everything properly and that the device is in proper working order. The red LED indicates that the device is receiving power. The green LED indicates that the device is registered to the cellular network.

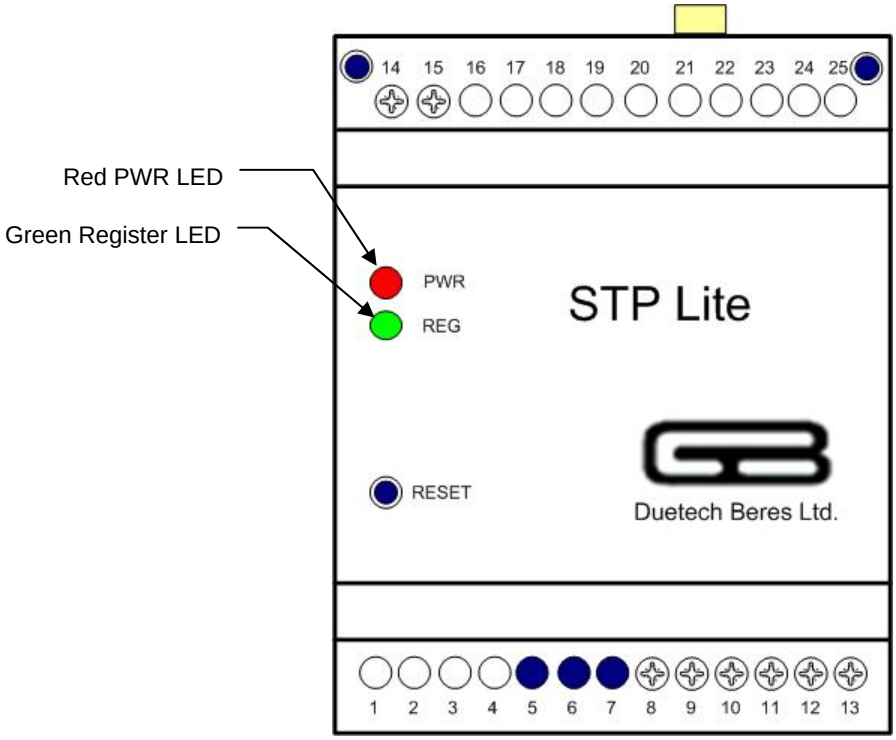


Figure 18: Status LEDs in STP Lite

Red PWR LED

After applying the 12 V DC power supply, or inserting the back-up battery, check that the red PWR LED lights up. The red PWR LED indicates that the main power is applied, or that the backup battery is properly attached.

Table 7: PWR LED Indications

LED Indication	Operation Status
No indication	No power
Red, blinking	When STP unit is sending a SMS or GPRS message
Red, steady	Power on

As we'll see later on in the section dealing with the **Logic Flow Lite** software, the red light will flash when the **STP Lite** sends an SMS or GPRS message.

Green GSM LED

The green GSM LED indicates that the unit registers to the network. When you first power up the **STP Lite**, or press Restart, the device emits 4 beeps, and in a few seconds the green LED lights up. The green LED will remain lit continuously for five seconds, while the device is searching for the cellular network. A lower-pitched beep then indicates that the device is connected and functioning, and the green LED subsequently flashes periodically.

During normal functioning of the device, the green LED serves as the modem registration indicator. This light is on when the modem powers up, and flashes when the **STP Lite** is registered with the cellular network.

Table 8:Green REG LED Indications

LED Indication	Operation Status
No indication	GSM unit Off
Green, steady	Device is searching for the network connection
Green, blinking	Connected to a network

Reset Button

If you encounter a problem with the functioning of the device, use the Reset button on the front of the device to reset the STP. This will allow you to restart the device without having to detach it from the power supply.

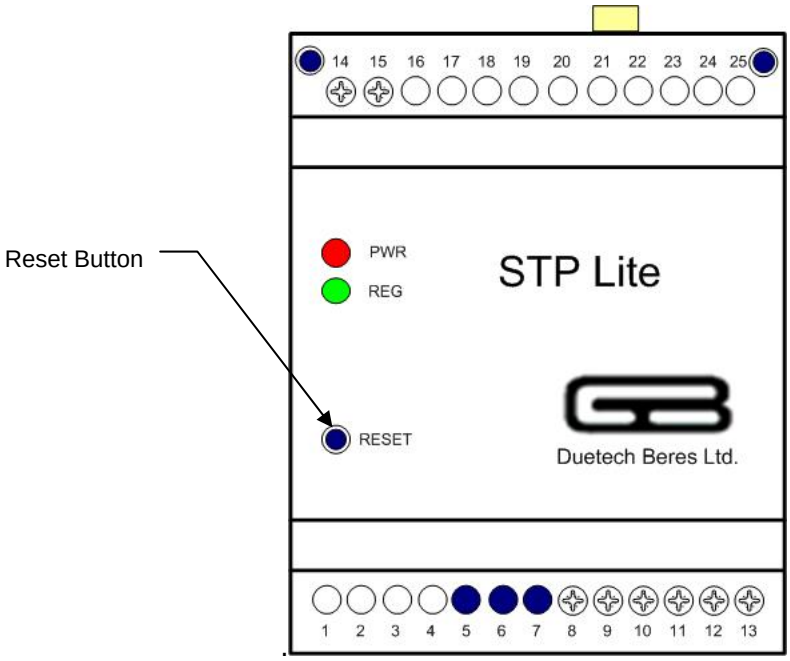


Figure 19: STP Lite Reset Button

Chapter 4: Using Logic Flow Lite

This chapter provides detailed instructions for configuring and using the **Logic Flow Lite** Software that comes with the **STP Lite** unit.

Section 4.1 Getting Started with Logic Flow Lite

When you click on the **Logic Flow Lite** Platform icon on your desktop or in the Start taskbar, the program's opening screen appears, displaying the menus.

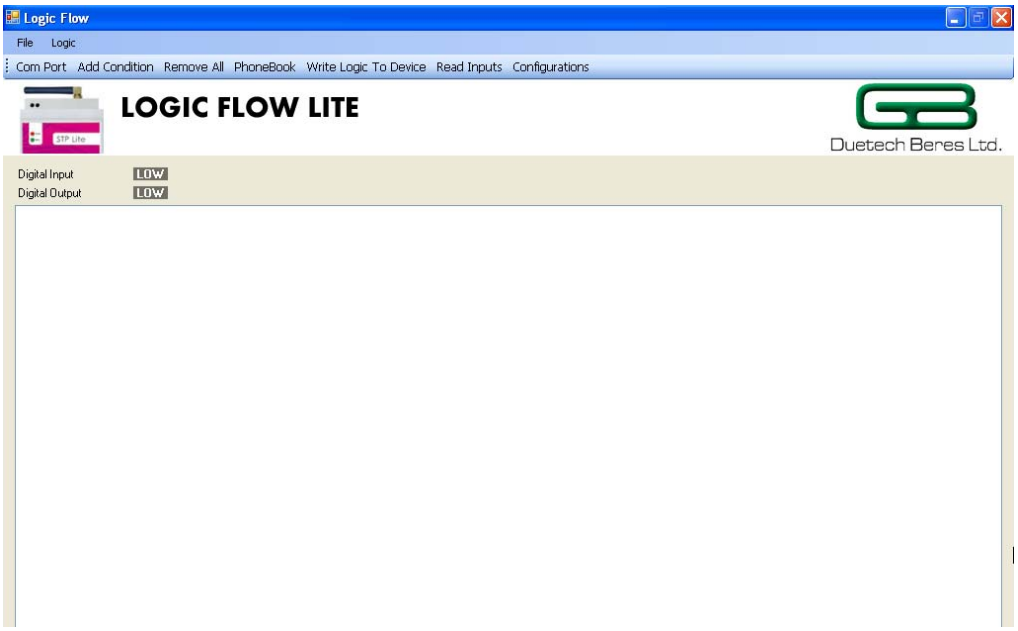


Figure 20: Logic Flow Lite Opening Screen

STP Lite Menus and Toolbar

The following table enumerates the functions on the opening screen of **Logic Flow Lite** and their uses:

File Menu

Menu Item	Function
Load File	Allows you to load a set of conditions to the **STP Lite** device, saved in a *.cond file
Save	Allows you to save the conditions you have supplied to the **STP Lite** device in a *.cond file

Logic Menu

Menu Item	Function
Write To Device	Writes the list of instructions to the device
Read From Device	Reads the present list of instructions from the device and displays it on the screen (included in future release)
Erase Device	Erases the logic that has been written to the device (included in future release)

STP Lite Toolbar Commands

Logic Flow Lite Command	Function
COM Port	Opens or closes the RS232 serial port connection between the **STP Lite** device and the computer
Add Condition	Allows you to add a condition to the list of commands to the STP, providing inputs and outputs
Remove All	Allows you to erase all conditions from the list. Note that it removes conditions only from LogicFlow, to erase the STP Lite, click 'Write to Device' after removing all conditions to update the hardware.
Phonebook	Allows you to store names and phone numbers of users of the STP, to receive or send messages to the device

Logic Flow Lite Command	Function
Write Logic to Device	Writes the list of commands to the STP. When you click on Flash, an indicator bar at the bottom of the opening screen shows the progress of writing to the STP. A screen will pop up telling you that the write was successful, or that it failed
Read Inputs	Updates the user to the state of the digital input and relay output (result displayed on main screen)
Configurations	Allows you to set the device's: • UNIT ID- is the identification of the controller maximum character 10 • Access Point Name (APN)(for the cellular service providers that require it) maximum 18 characters • User name that was configured in the SIM CARD. maximum 18 characters • Password that was configured in the SIM CARD. maximum 18 characters • To set the number of seconds to delay sending an outgoing call (10-30 sec) • PIN code of the SIM CARD. maximum 10 numbers • TCP timeout between 10-86400(sec) • To enable/disable output events • To enable/disable input/output change report to LogicFlow

STP Lite Logic Flow Lite Indicators

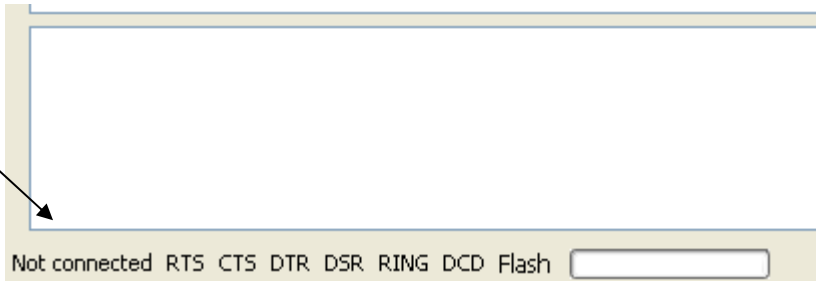
At the bottom of the **Logic Flow Lite** screen, you will see the following indicators:

- **COM1/9600**: An indication of the serial port and the baud rate.

Verifying that there is communication with the STP Lite

When you first execute the **Logic Flow Lite** software, you will receive notification that the serial port is not connected to the **STP Lite**.

Device is not connected

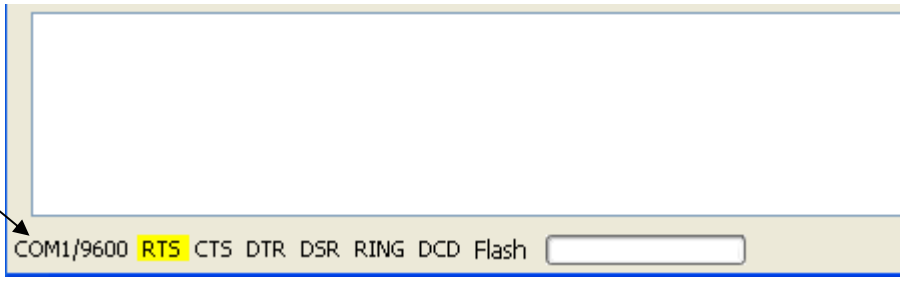


1. Click on the command **COM Port** in the opening screen.

The **Serial Connection** dialog appears, prompting you to open the COM Port. This enables communication between your computer and the **STP Lite** device.

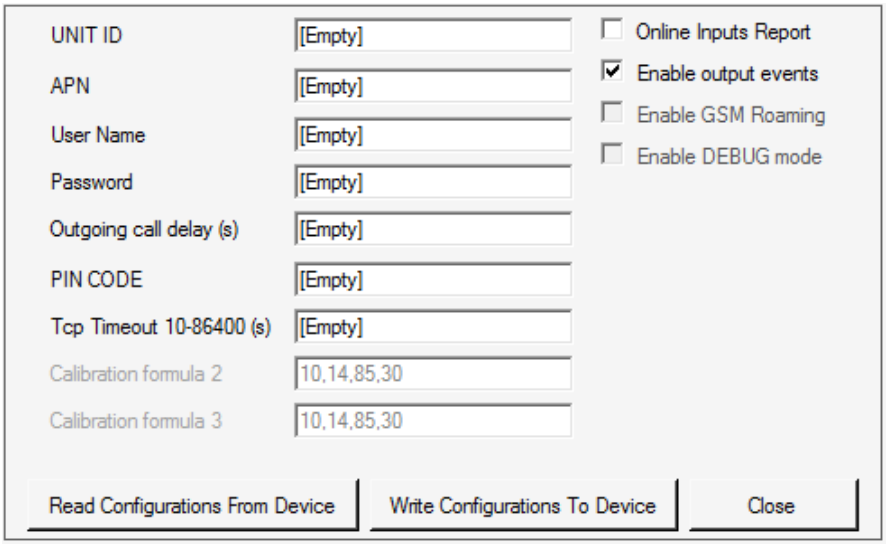
2. If there are several serial ports on your computer, select the appropriate one from the drop-down list near **Port:**, and type in the Baud Rate.
3. Click **Open Port**.
   The bottom left area of the opening screen will indicate the COM Port and the baud rate.

Device is now connected to COM 1 at 9600 baud



Section 4.2 Configuration Settings

Configuration Settings Screen



When you click on the **Configurations** command in the **Logic Flow Lite** opening screen, the **Configuration Settings** screen will open up.

Fields in the Configuration Settings Screen

UNIT ID

If you employ several **STP Lite** devices, you will find it useful to be able to identify which device is sending you a particular SMS or GPRS message. The UNIT ID option in the Configuration Settings Spreadsheet is what allows you to assign an identifying name to each **STP Lite** unit. In the **UNIT ID** field, type the desired name for your particular **STP Lite** unit. When the **STP Lite** unit will send an SMS or GPRS data, this Unit ID will appear in the display of your phone in case of an SMS. The maximum characters you can put is 10

APN, User Name, Password

The Access Point Name (APN) must also be supplied in case of GPRS use.
The maximum characters you can put is 18

Outgoing Call Delay (s)

This option allows you to set the amount of delay (in seconds) between the time the **STP Lite** sends an outgoing call and then disconnects the call.
The range of the delay is 10-30 seconds.

Pin Code

The access code to the SIM card.

Valid field, only if the SIM has a pin code you should enter the same code.
If your SIM card don't have a pin code than the field is irrelevant.
Note: default pin code is 1234.
The total maximum numbers is 10.

TCP Timeout 10-86400(s)

Length of time, in seconds, that a TCP session connection will remain active without the remote connection sending any data.

Online Inputs Report

Checking this box updates **Logic Flow Lite** as to any changes in the input and output.

Enable Output Events

Enables/disables output event execution. (similar in function to DISARM command—see p.44—DISARM Input Event).

Configuration Settings Commands

Read Configurations from Device

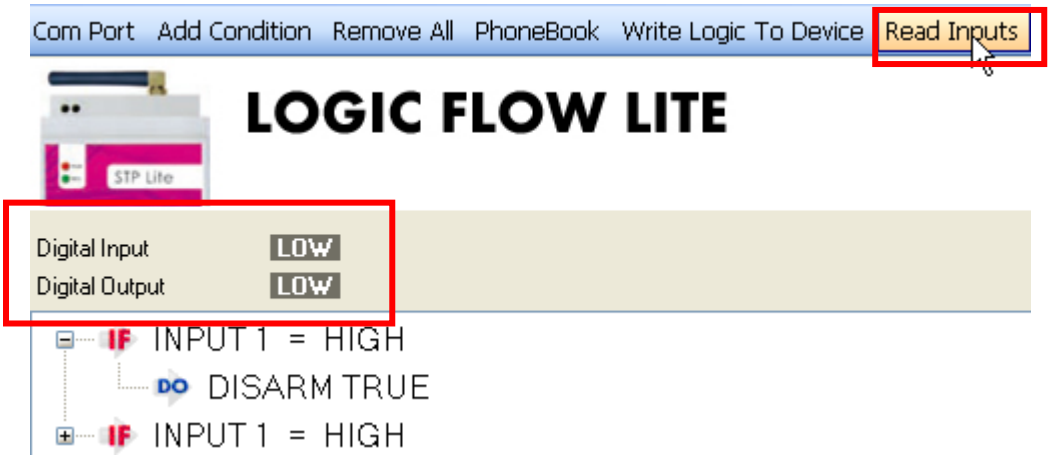
This allows you to read the device's configuration, to check if the configuration is in order, or if you need to know a specific parameter, for example, the Unit ID.

Write Configurations to Device

Clicking on this writes the selected configurations to the **STP Lite** device.

Section 4.3 Read Inputs Command

The **Read Inputs** command on the **Logic Flow Lite** main screen is an option that allows you to know the status of the digital input and relay output of the **STP Lite**. This information about whether the digital input and digital output are presently HIGH or LOW will be displayed on the main screen above the instruction set list.



Phonebook Setup

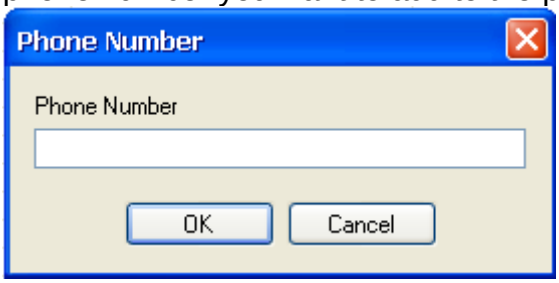
The **Logic Flow Lite** interface allows you to provide the **STP Lite** with a Phonebook—a list of phone numbers of a group of users of the **STP Lite**.

Adding a Number to the Phonebook

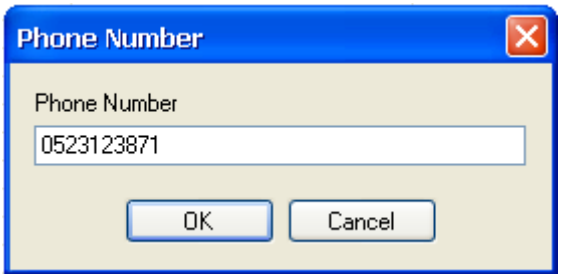
To add a number to the Phonebook:

1. Click the **Phonebook** command in the **Logic Flow Lite** opening screen.
   The **Phonebook** window will open.

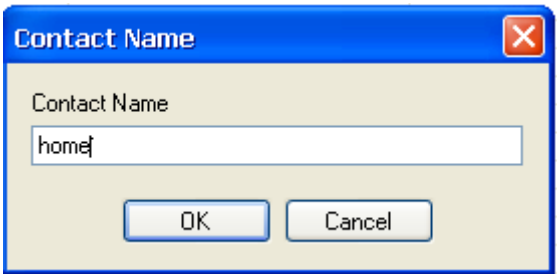
2. Click **Add**.
   The **Phone Number** window will open, prompting you for the phone number you want to add to the phonebook.



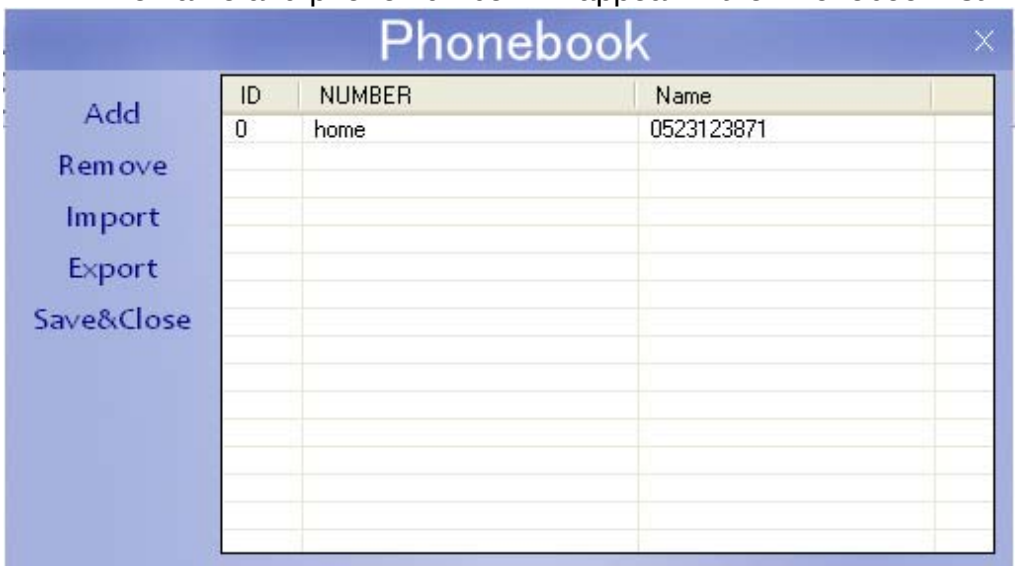
3. Enter the phone number you wish to add to the Phonebook in the **Phone Number** field, and click **OK**.



The **Contact Name** window will open.



4. Enter the name of the owner of the phone number, and click **Ok**. The name and phone number will appear in the Phonebook list.



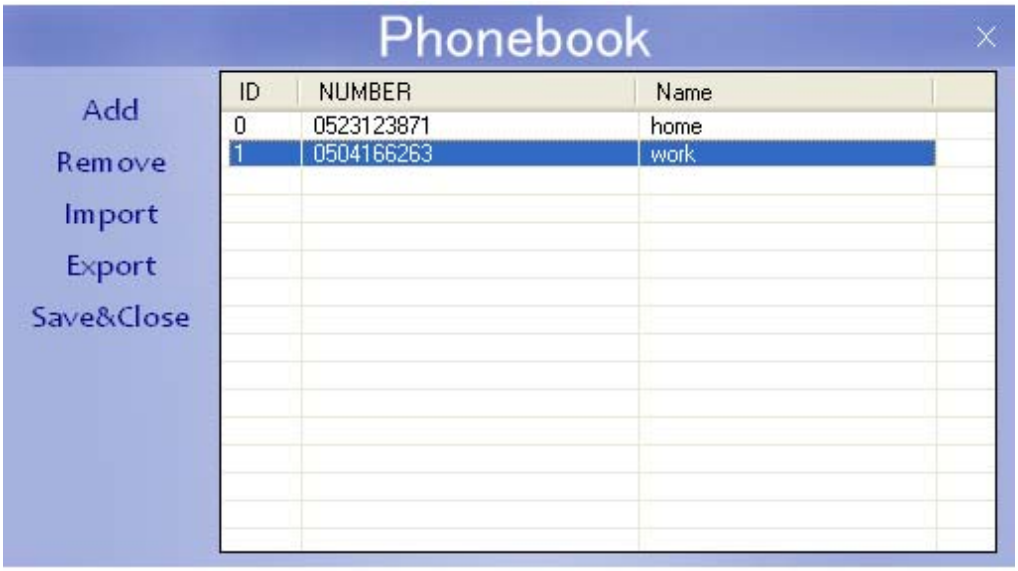
If you close the Phonebook window by clicking on the X in the upper right hand corner, the number you have added will not be saved in your computer.

In order to save the phone number and name, click on **Save&Close**. **Logic Flow Lite** saves the Phonebook data locally on your computer, and updates the **STP Lite** as specified.

Removing a Phone Number from the Phonebook

To remove a number from the Phonebook:

5. Click on the **Phonebook** menu in the **Logic Flow Lite** Opening Screen.
   The **Phonebook** window will open, displaying the list of saved phone numbers.
6. Mark the phone number you want to remove by clicking on the number.



7. Click **Remove.**
   The phone number and name will be removed from the list.
8. Click **Save&Close** to save the changes to the Phonebook.

Exporting a List of Phone Numbers from the Phonebook into a File

To be implemented in future release.

Importing a List of Phone Numbers into the Phonebook

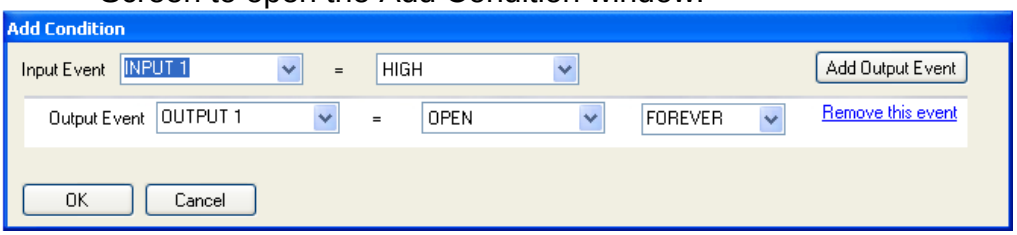
To be implemented in future release.

Section 4.4 Setting the STP's Input Event

For the **STP Lite** to implement condition sentences, you must program the input and output events of the device. The **Logic Flow Lite** software allows for a set of 12 different types of inputs, and 13 different types of outputs. The software has been custom-made for the inputs and outputs the **STP Lite** accepts.

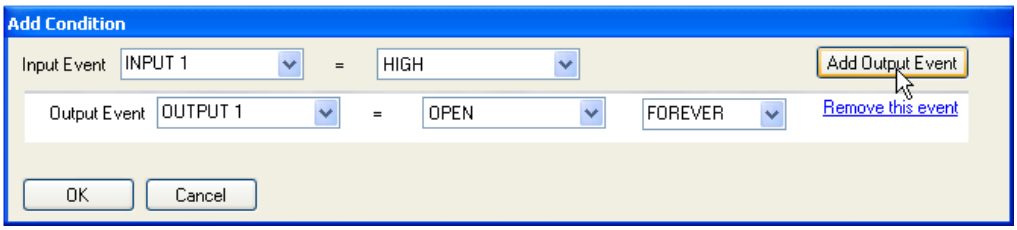
To select a new input event:

1. Click the **Add Condition** command in the **Logic Flow Lite** Main Screen to open the Add Condition window.



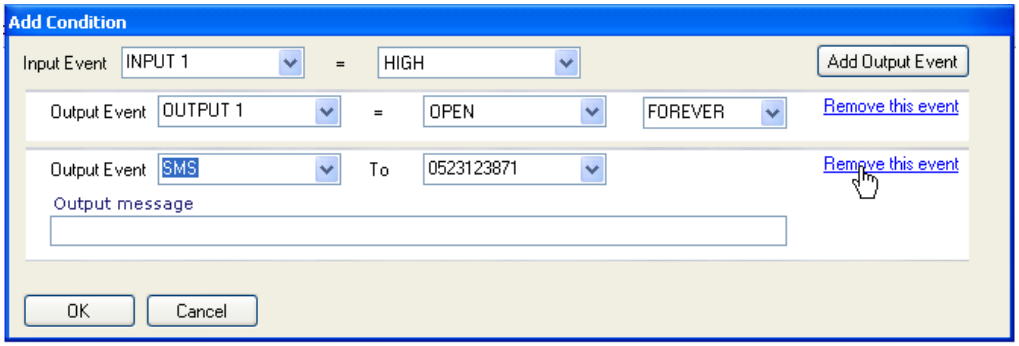
In the Input Event drop-down list, you see a display of all the input event options. The other fields adjust automatically according to the type of input event selected.
A single input event to the **STP Lite** can control up to four output events, in any one instruction sentence. For example, upon receiving the given input event, such as a device exceeding range of operating temperature, the **STP Lite** unit can turn on a cooling system, and alert you by an SMS, an incoming call, and a GPRS message over the Internet.

2. If you want more than one output event, click on **Add Output Event**.



The Add Condition window will expand to accommodate another Output Event.

3. If you choose to remove one of the output events, click on **Remove this event**.



Here is a brief description of all the input events that are possible.

Table 9: Logic Flow Lite Input Events

Input Type	Description
INPUT1	Digital input into the **STP Lite** device. Can take the value HIGH(1.2-24) or LOW(0-0.8)
OUTPUT1	Allows you to set the unit to respond to a change in output; for example:(If 1 the event is timed output and you would like to perform something when the output will be triggered, or 2 if an incoming call will trigger OUTPUT1)
Main Power	Triggers the output event when the device is detached (LOW) from or is reattached (HIGH) to the main power

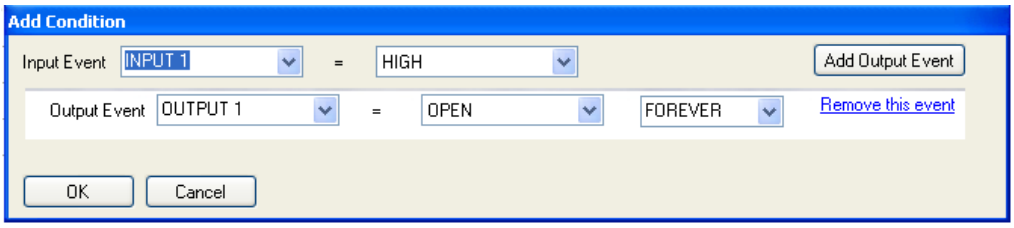
TIMER1-4	Allows for timed input. Timers 1 & 2 count in units of 10's minutes, and Timers 3 & 4 count in units of seconds
SMS	Triggered as a new SMS with a predefined message is sent to the device.
INCOMING CALL	Triggered as an incoming call is dialed to the device.
RS232	Allows a text RS232 message to trigger the device
DISARM	Triggered as DISARM state is changed by a different event.
STARTUP	Performs the output event upon startup, or when you press reset or write to the STP

"Digital" Input Event

As mentioned before, the **STP Lite** takes one digital input. If the input voltage is between 1.2-24 V, the input is considered HIGH. If the input voltage is between 0-0.8 V the input is considered LOW.

To set a digital input:

1. Click the arrow near the **Input event** drop-down list box, and select **INPUT1**.
2. Choose the desired state from the **Status** list box. Select the input condition as either **HIGH** or **LOW**.



"OUTPUT" Input Event

You can even set an output event to serve as input to the **STP Lite** device. This is practical, for instance:

- If the event is timed output and you would like to do something when the output will be triggered.

- If an incoming call will cause OUTPUT1 to be triggered, you want that the **STP Lite** should to do something as a response to this output change.

To use the "OUTPUT 1" as an input event:

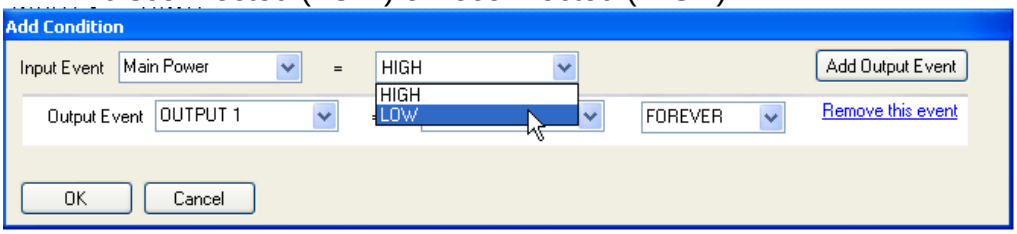
1. Click on the arrow near the **Input event** drop-down list box, and select the **"Output 1"** input event.
2. In the list box assign whether the output signal should be **HIGH** or **LOW**.

"Main Power" Input Event

You may want to be alerted if the **STP Lite** device gets disconnected from the main power, and is now running on the backup battery. You may want to be alerted if the main power is restored. The Main Power Input Event is designed for this purpose.

To set "Main Power" as an input event:

1. Click on the arrow near the **Input event** drop-down list box, and select the **"Main Power"** input event.
2. Select in the list box next to the "=" sign whether you want the **STP Lite** device to alert you when the Main Power is disconnected (LOW) or reconnected (HIGH).



"Timer" Input Event

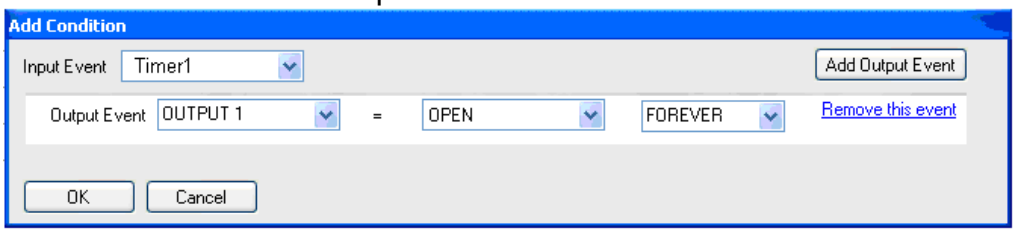
TIMER as an input event allows the **STP Lite** to respond after a specified amount of time. **TIMER1** and **2** delay the output response in **units of 10's minutes**, whereas **TIMER3** and **4** delay the output response in **units of seconds**.

NOTE: There must be a previous event that uses TIMER as the output event, in order to use TIMER as an input in the next command. (See **Section 4.8, Some Useful Examples,** p. 56**).**

In order to stop the timer event you need to enter the number 255 as a value for the timer.

To use TIMER as the input event:

- Click on the arrow near the **Input event** drop-down list box, and select the **TIMER** input event.

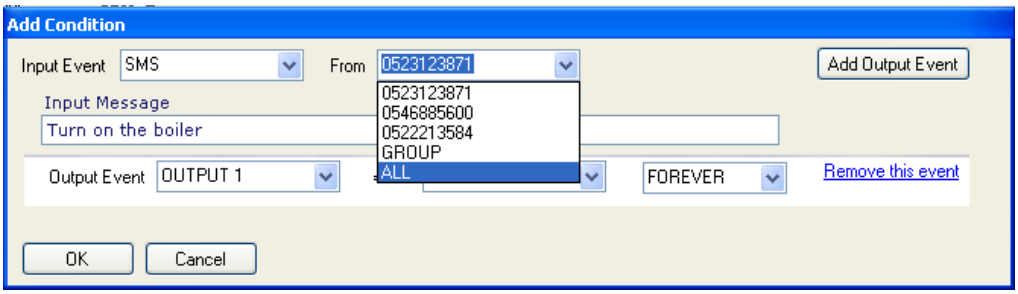


"SMS" Input Event

A useful feature is using an SMS as the input event. You can send an SMS to the **STP Lite** device, and that can serve to trigger the **STP Lite** to give the programmed output.

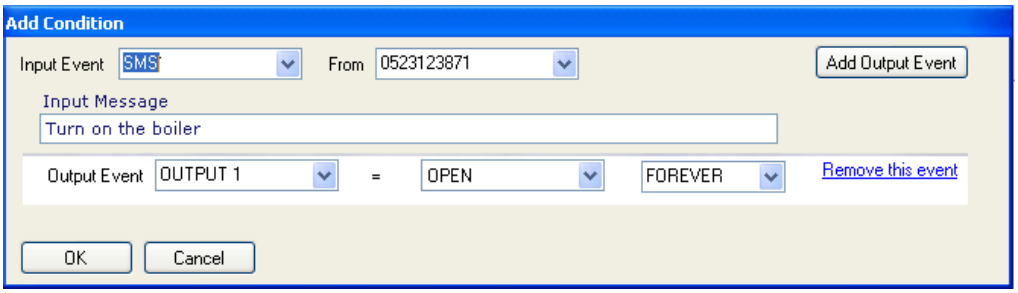
To set an SMS message as the input to the STP:

1. Click on the arrow near the **Input event** drop-down list box, and select **SMS**.
2. Click on the arrow near the **From** list box, and select from the possible senders of an incoming SMS message to the device.



- Select **ALL** to allow all SMS senders to activate the **STP Lite** by sending the specified SMS message to the device.
- Select **GROUP** to allow only SMS senders listed in your Phonebook to activate the **STP Lite** by sending the specified SMS message to the device.
- You can also enter in a specific phone number that will be able to send an SMS to activate the specified output event. Either select the number from the drop-down list (which are the entries in your Phonebook), or type it in manually in the **From** list box.

3. Enter the text of the SMS message that will serve to activate the device in the **Input Message** box. The message length should be no longer then 60 English characters.

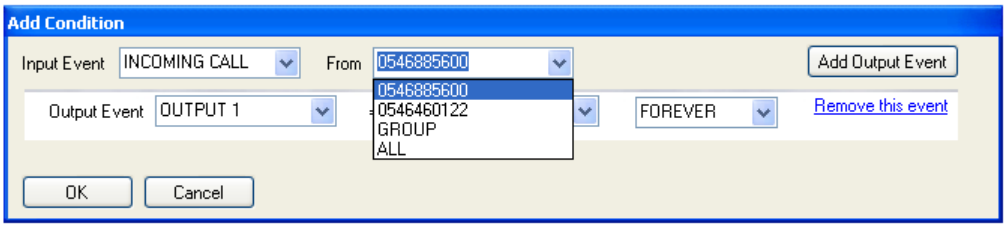


"Incoming Call" Input Event

Just as you can set an SMS message to be the trigger of the **STP Lite** device, you can also use an incoming call to serve as the trigger. You will hear the phone ring as you try to make the call, and the call will be rejected (it is recommended that you cancel the voice mail via the GSM provider). The **STP Lite** has successfully triggered the STP.

To set an incoming call as the input to the STP:

1. Click on the arrow near the **Input event** drop-down list box, and select **INCOMING CALL**.
2. Click on the arrow near the **From** list box, and select from a list of possible callers to the device.



- Select **ALL** to allow all callers to activate the **STP Lite** by calling the device.
- Select **GROUP** to allow only callers whose phone numbers are listed in your Phonebook to activate the **STP Lite** by calling the device.
- You can also enter in a specific phone number that will be able to call the **STP Lite** to activate the specified output event. Either select the number from the drop-down list (which are the entries from your Phonebook), or type it in manually in the **From** list box.

"RS232" Input Event

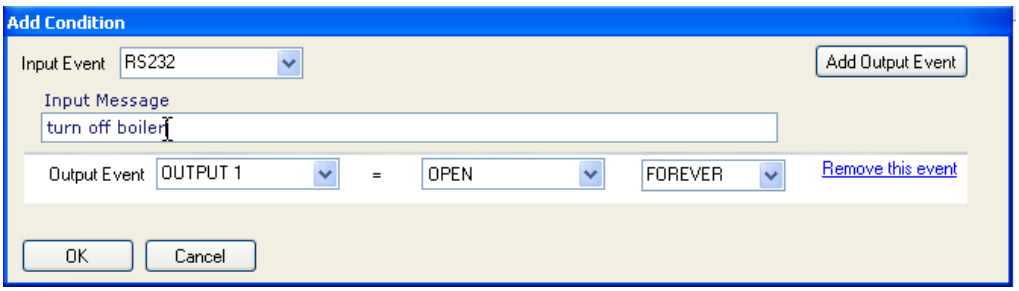
You can use a message from any RS232 device to the **STP Lite** to serve as a trigger. You specify the message string to send to the STP, and the **STP Lite** will respond with the specified output.

To use a text message from the computer to serve as the input to the device:

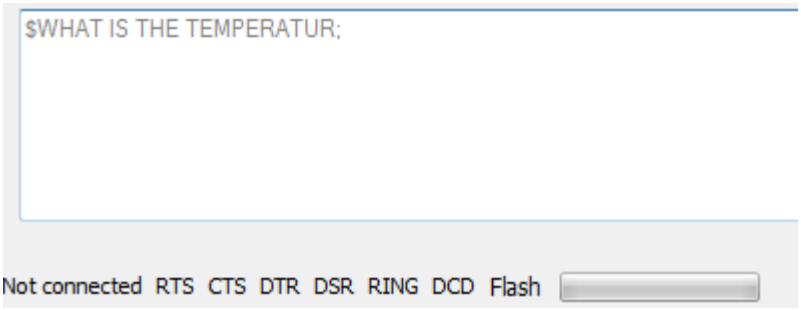
1. Click on the arrow near the **Input event** drop-down list box, and select the **RS232 i**nput event.

The **Input message** text box will appear, prompting you for the message to be communicated to the RS232 parallel port on your computer.

2. Enter the text of the RS232 message that will activate the output event in the **Input Message** text box.



3. In order to send the msg through the COM port you should write the msg in this format: **$**[MESSAGE]**;**



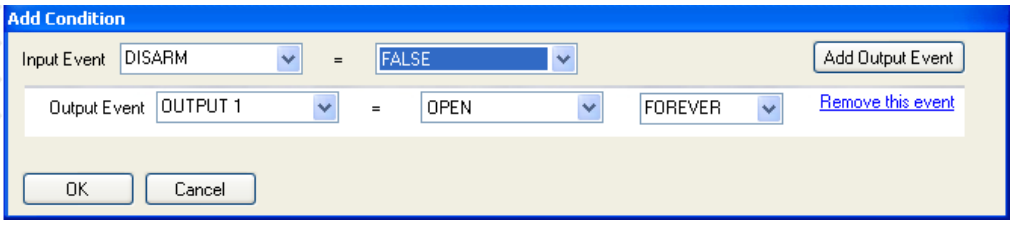
"DISARM" Input Event

DISARM is a useful command when the **STP Lite** is used for security or alarm system. Let's say you want to set an alarm only after you leave the area you wish to secure. Setting the input of the **STP Lite** to DISARM will cancel all output events—effectively turning the alarm system off. You can then program the **STP Lite** to turn the alarm on after you leave the area, by sending it an SMS or incoming call. (see **Section 4.8, Some Useful Examples**, p.62).

To use the DISARM input event:

- Click on the arrow near the **Input event** drop-down list box, and select the **DISARM** input event.

The value of the input will be automatically set to “FALSE”, canceling any output events.


Add Condition
Input Event
DISARM
=
FALSE
Add Output Event
Output Event
OUTPUT 1
=
OPEN
FOREVER
Remove this event
OK
Cancel

"STARTUP" Input Event

The STARTUP option allows you to execute the desired output every time the **STP Lite** is turned on or resets. (This is a practical feature, for example, if you want to find out the number stored on the **STP Lite**'s SIM card, in order to access the device—see **Section 4.8, Some Useful Examples**, p. 61.)

To use the STARTUP option as input to the STP:

- Click on the arrow near the **Input event** drop-down list box, and select the **STARTUP** input event.

Once this is set as the input event, any startup of the **STP Lite** will execute the output event. Startup will consist of:

- Turning on the power to the **STP Lite**,
- Pressing the reset button the unit, or
- Clicking on the **Write Logic to Device** command.
- As a result of a reset event.

Section 4.5 Setting the STP's Output Events

After configuring the desired input event for the **STP Lite**, and selecting the number of output events you want the **STP Lite** to control, you now have to select the type of output event. The **Logic Flow Lite** software allows for 10 different output event options from which to choose.

Table 10: Logic Flow Lite Output Events

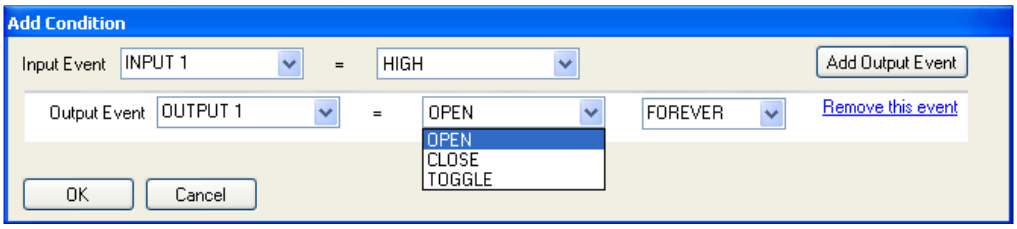
Output Type	Description
OUTPUT1	Digital output from the **STP Lite** device. Can take the value HIGH or LOW
TIMER1-4	Sets Timer to a predefined value. Timers 1 & 2 count in units of 10's minutes, and Timers 3 & 4 count in units of seconds
SMS	Sends an SMS message from the **STP Lite** when triggered
GPRS	Sends a GPRS message from the **STP Lite** when triggered
RS232	Sends a text RS232 message to the **Logic Flow Lite** interface when the **STP Lite** is triggered
OUTGOING CALL	Initiates an outgoing call when the **STP Lite** is triggered
BUZZER	Emits a buzz at a certain specified frequency when triggered
RESET	Performs a reset of the **STP Lite** upon receiving the specified input
DISARM	Useful in implementing an alarm system—allows you the choice of enabling/disabling the alarm
ALARM	Sounds an alarm when triggered

"Digital" Output Event

The Digital Output Event gives a digital output—either OPEN or CLOSED (LOW or HIGH) in response to the input signal.

To use the Digital Output Event:

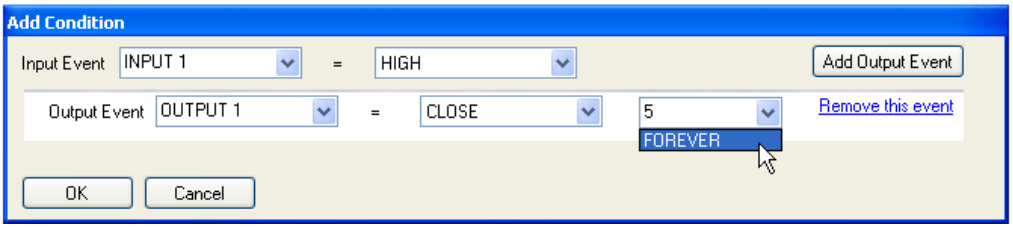
1. In the Add Condition dialog box, click on the arrow near the **Output Event** drop-down list box, and select OUTPUT 1.
2. Set the output value you want the output event to equal in the **Output Value** list box.



- **OPEN** will activate the output circuit upon receiving the selected input event.
- **CLOSE** will de-activate the output circuit upon receiving the selected input event.
- **TOGGLE** will toggle the output: it will connect a disconnected output circuit, and disconnect a connected output circuit, upon receiving the selected input event.

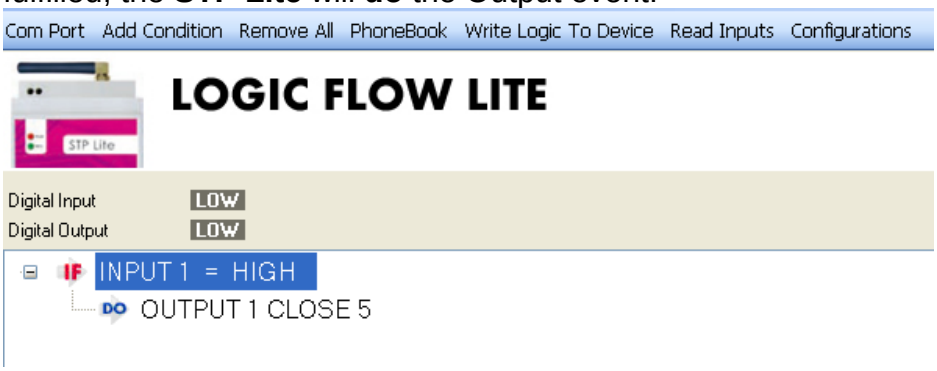
3. In the **Duration (Seconds)** box, set the duration for the output to be either opened, closed, or to toggle. You have two options to specify the output's duration:

- Type in the number of seconds desired for the output event (for example, 55 = 55 seconds) or
- If you want the output event to continue indefinitely, click on the arrow near the **Duration (Seconds)** field to scroll it and choose **FOREVER**.



4. Click on **OK**.

The Input and Output event will be displayed in brief on the **Logic Flow Lite** main screen, indicating how **if** the Input condition will be fulfilled, the **STP Lite** will **do** the Output event.



"Timer" Output Event

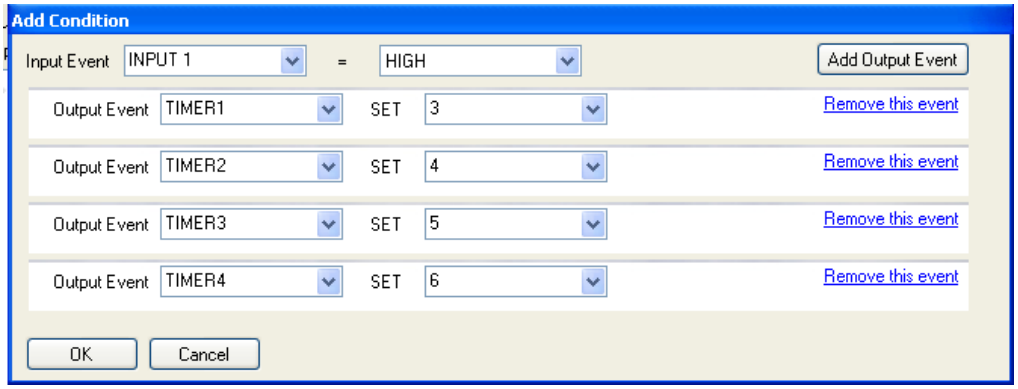
Sets Timer to a predefined value, Timers 1 & 2 count 10 minutes per unit, and timers 3 & 4 count 1 second per unit.

(See Section 4.8, Some Useful Examples, p. 62).

To use the Timer Output Event:

1. Click on the arrow near the **Output Event** list box, and select **TIMER1**, **TIMER2**, **TIMER3**, or **TIMER4**.

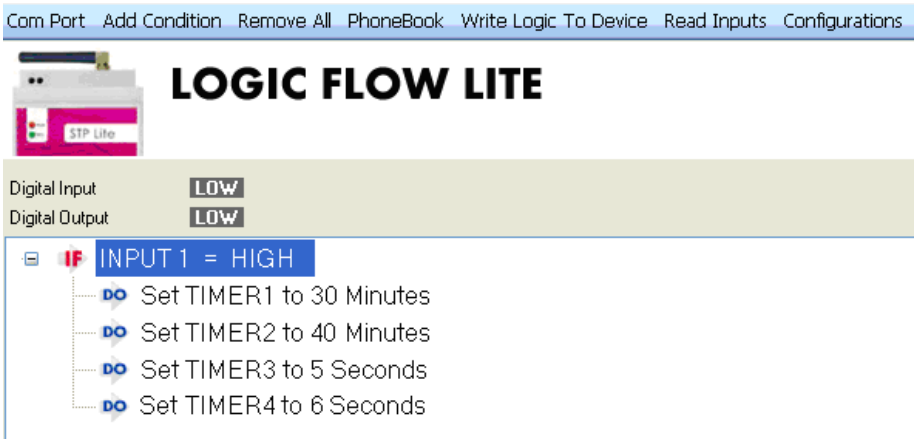
The following screen capture has all the timers employed as output events:



2. In the **SET** box, type in the timer duration.

Again, for TIMER1 and 2, the number entered will be increment of 10 minutes of delay between the input and output event. For TIMER3 and 4, the number entered will be seconds of delay. The value must be between 1-254.

3. Click **OK**.



"SMS" Output Event

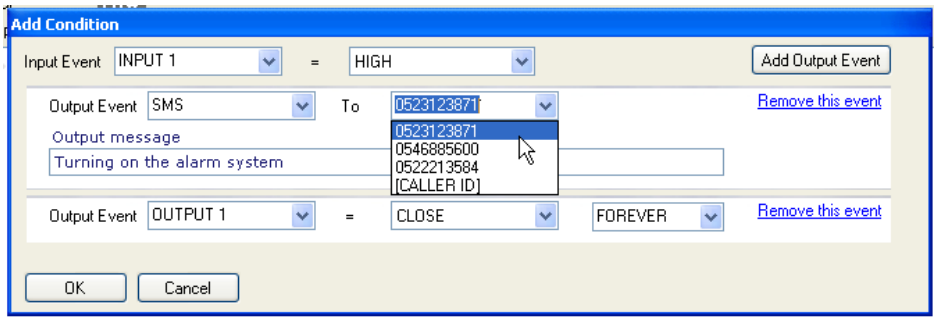
You can set the **STP Lite** to send you an SMS message when the device receives the specified input.

To use the SMS Output Event:

1. Click on the arrow near the **Output Event** list box, and select **SMS** as the output event.
2. Enter the destination phone number—the number that is to receive an SMS message from the **STP Lite** device-- in the **To** field. You can either:

- Manually enter a phone number in the field, or
- Click on the arrow near the **To** field, to select a phone number from the Phonebook.
- If you select the option [CALLER ID], the **STP Lite** will send an SMS back to the person who called the device.

NOTE: CALLER ID is only an option when the **Input Event** is **SMS** or **Incoming Call**.



3. Fill in the message text for the SMS in the **Output message** text box.
4. Click **OK**.

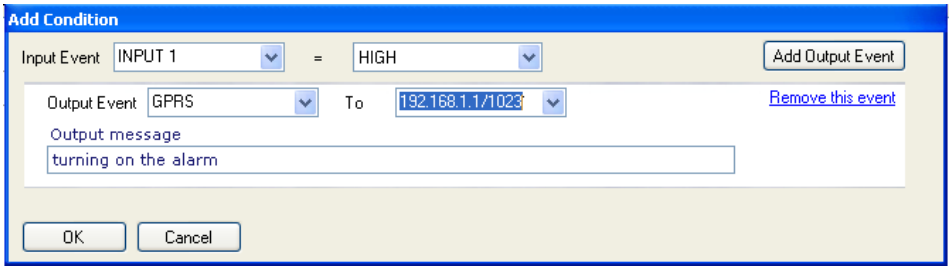
"GPRS" Output Event

You can have the **STP Sense** send a GPRS message to you via your Internet server, in the event of something triggering the specified input, or a power failure. The GPRS message is sent to the **IP Address** or **domain name** and **Port** that you specify.

To set the STP Sense to send you a GPRS message:

1. Click on the arrow near the **Output Event** drop-down list box, and select **GPRS** as the output event.
2. Supply the IP or the domain name and Port in the **"To**" text box.

The format for the IP/PORT combination is [IP ADDRESS]/[PORT]: for example, 192.168.1.1/1023, where 192.168.1.1 is the IP Address, and 1023 is the Port. The IP Address is in the format 0.0.0.0 and the Port is any number up to 65000.
The format for the domain name and port combination is ["DOMAIN NAME**",**PORT]. (the quotation marks are needed)
For example: **"www.cnn.com",80** where **"www.cnn.com"** is the domain name and 80 is the port.
The port is any number up to 65000



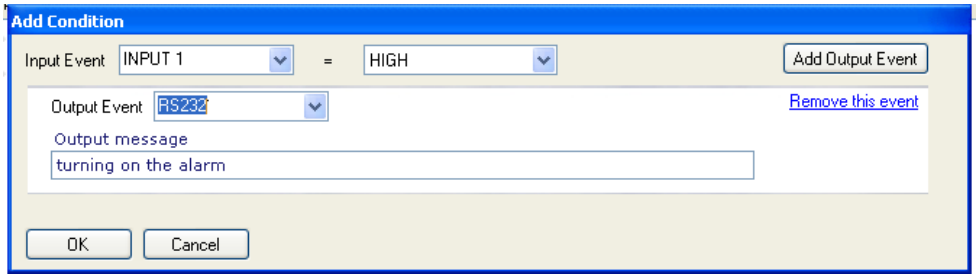
3. Fill in the message text in the **Output Message** text box. The message length should be no longer then 60 English characters.
4. Click **OK**.

"RS232" Output Event

You can have the **STP Lite** send you an Event Report screen (see Section 5.6) of the **Logic Flow Lite** interface, when the **STP Lite** device receives the input specified. This is termed the RS232 Output: output delivered via your computer's serial port. You can then select the text of the Event Report, and paste it into a Word or Excel file.

To set the RS232 Port as the Output device:

1. Click on the arrow near the **Output Event** list box, and select **RS232**.
2. Fill in the message text on the **Output Message** text box.



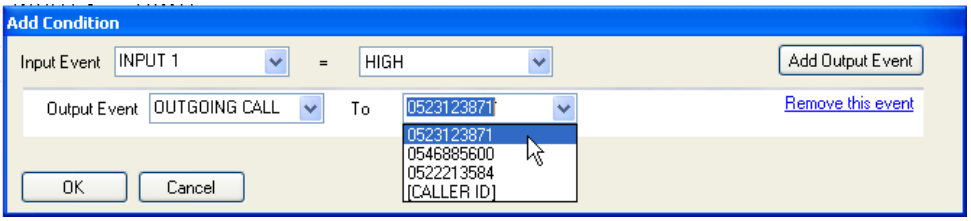
3. Click **OK**.

"Outgoing Call" Output Event

You can have the **STP Lite** send you an outgoing call as the output event. When the **STP Lite** receives the specified input, the phone number you supply the **STP Lite** will receive a single ring.

To set an outgoing call as the output event:

1. Click on the arrow near the **Output Event** list box, and select **Outgoing Call** as the output event.
2. Provide the phone number you wish the **STP Lite** device to call in the "To" field.



If you select the option [CALLER ID], the **STP Lite** will send the outgoing call back to the person who called the device.

NOTE: CALLER ID is only an option when the **Input Event** is **SMS** or **Incoming Call**.

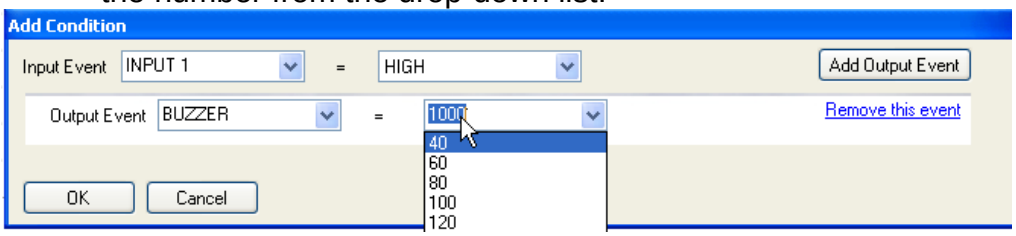
3. Click **OK**.

"Buzzer" Output Event

You can have the **STP Lite** give a buzz of a specific frequency when it receives the input event. This is the Buzzer feature of the STP.

To set the Buzzer as the output event:

1. Click on the arrow near the **Output Event** list box, and select **BUZZER**.
2. Select the buzzer tone sound in the **Output Value** box. You can type in a value between 0-1023. Alternatively, you can select the number from the drop-down list.



3. Click **OK**.

"Reset" Output Event

The RESET Output Event will reset the device upon receiving the specified input. You can use this, for example, to turn off an alarm that has been triggered by a previous input event.

To make RESET as the output event for the STP:

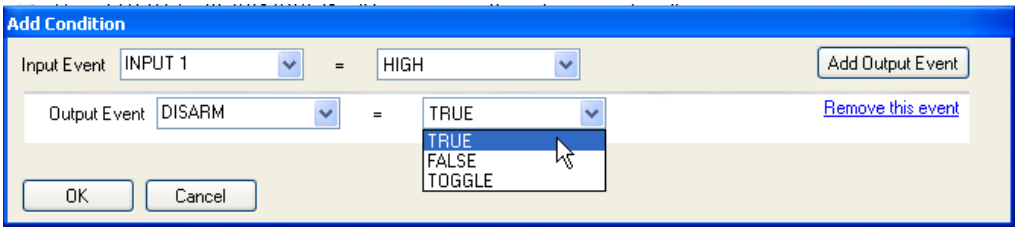
1. Click on the arrow near the **Output Event** list box, and select **RESET**.
2. Click **OK**.

"DISARM" Output Event

DISARM is a command that is useful in implementing an alarm system. Let's say you have a sensor set as the input to the STP: when someone triggers the sensor, an alarm will sound. If you use DISARM as the output event, you can voluntarily **arm** or **disarm** the security system, so that it sounds off the alarm only at specific times. (See **Section 4.8, Some Useful Examples**, p. 62.)

To make DISARM as the output event of the STP:

1. Click on the arrow near the **Output Event** list box, and select **DISARM**.
2. Set the **DISARM** value you want to set in the "**=**" box.



- **TRUE**—Disarms the system—turns off the alarm when receiving the specified input.
- **FALSE**—Enables the alarm system to detect trespassers when receiving the specified input.
- **TOGGLE** –Alternates between the TRUE and FALSE state, upon receiving the specified input event.

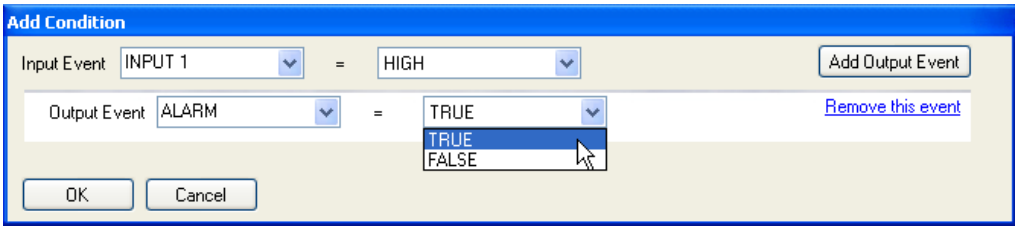
3. Click **OK**.

"Alarm" Output Event

You can use the **STP Lite** device as an alarm. When you set ALARM as the output event, the **STP Lite** will emit a high-pitched alarm sound, until you reset the **STP Lite** device.

To set ALARM as the output event:

1. Click on the arrow near the **Output Event** list box, and select **ALARM**.
2. Set the alarm status in the '**=**' list box. Select **TRUE** to turn the alarm on, and **FALSE** to turn the alarm off.



3. Click **OK**.

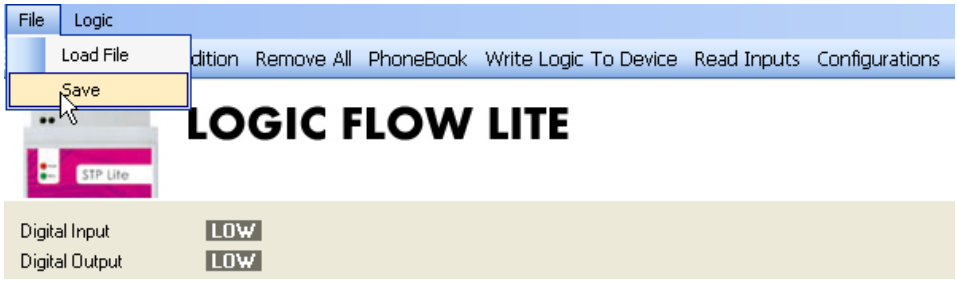
Section 4.6 Editing the STP Lite Instruction Set

Saving a set of instructions in a file

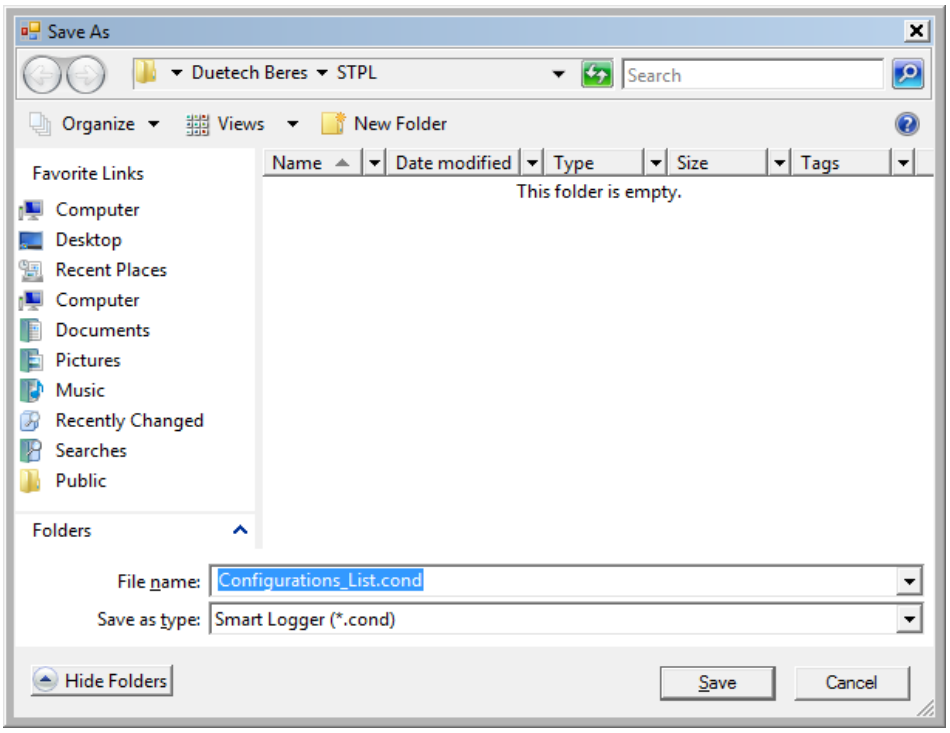
After you have supplied a series of instructions to a particular **STP Lite** device, you might want to save it for later use. For example, if you move the **STP Lite** unit temporarily to a different circuit, you will want to restore the previous set of instructions when you go back to the first device. **Logic Flow Lite** has a facility for this in the **File** menu.

To save a set of instructions:

1. Click on the **File** menu at the top of the screen, and select **Save As**.



The Save As dialog box will open, prompting you to give a name to your compilation of instructions.



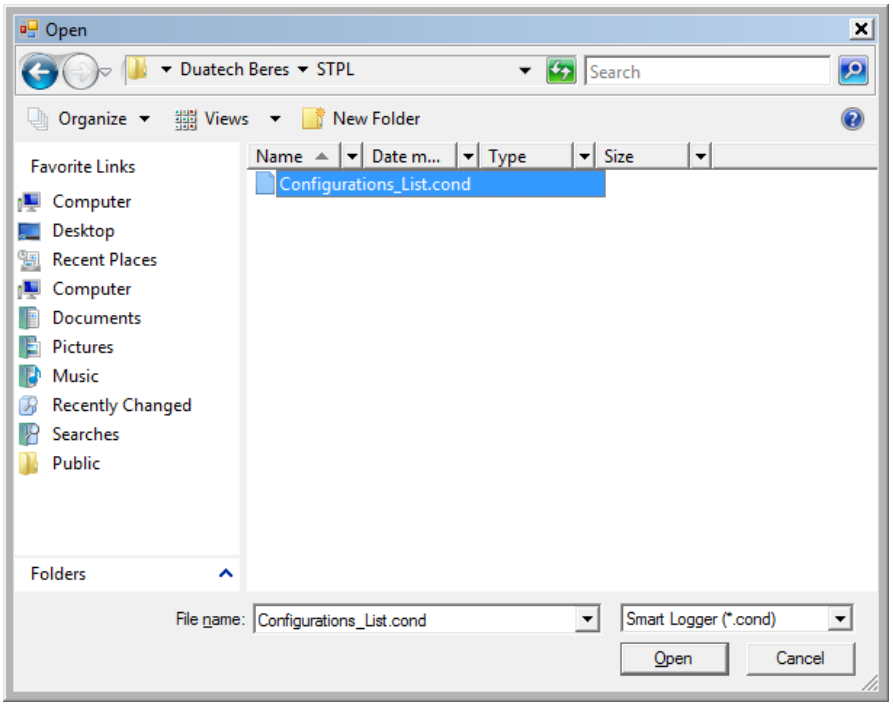
Supply a name in the File name box, and click Save.
The list of instructions will be saved as a file with the extension .cond.

Loading a saved set of instructions

The File menu can also be used to load a saved set of instructions.

To load a saved set of conditions to the STP:

1. Click on the File menu at the top of the screen, and select Load. The Open dialog box will appear, prompting you for the name of the condition file that you want to load onto the STP.



2. Select the condition file, and click on Open.
   The file name of the instruction set will appear in the upper left hand corner of the Logic Flow Lite opening screen. Also, the instructions from the condition file you selected will appear on the **Logic Flow Lite** Screen.

Removing instructions from the list

Logic Flow Lite has two options for removing conditions from the list on the screen:

- Removing all the instructions displayed
- Removing individual instructions

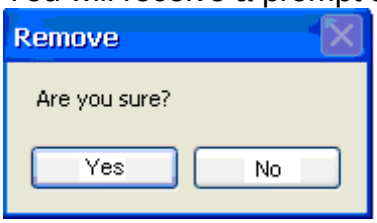
Remove all the instructions displayed on the screen

After you've saved the previous set of instructions on the screen, you want to configure the **STP Lite** from scratch. You will first have to erase all the conditions presently on the screen.

To remove all the instructions on the screen:

1. From the menu at the top of the screen, click **Remove All**.

You will receive a prompt asking you to verify the erasure.

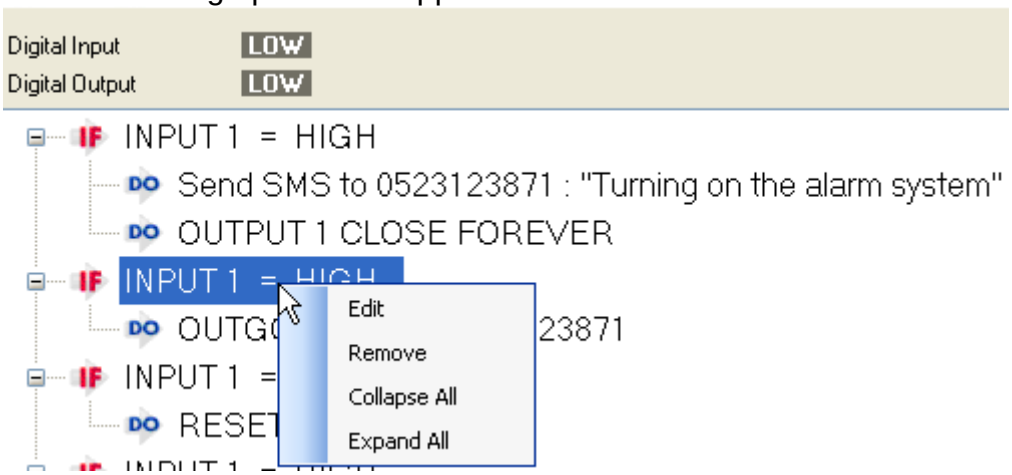


2. Click **Yes**.
   All the instructions on the screen will be erased.

Remove selected instructions

To remove selected instructions:

1. Right-click on the instruction you want to remove from the list.
   A box of editing options will appear.



2. Click **Remove**.
   The selected condition will be erased from the display.

Editing the Instruction List

If you want to modify one of the instructions to the **STP Lite**, **Logic Flow Lite** has a convenient editing feature.

To edit the instruction list:

1. Right-click on the Input event in the instruction list that you want to modify.
2. In the list of commands, select **Edit**.

The **Add Condition** box will reappear, with the original input and output events associated with this instruction.

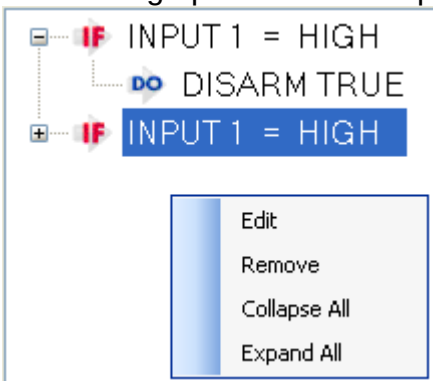
3. Make the desired modifications to the Input and Output events, and click **OK**.

Expanding/Collapsing the Instruction List

When the number of output events becomes large, the instruction set may start to appear more complicated. In order to make the logic written to the device more manageable, **Logic Flow Lite** has an option to expand or collapse all or some of the instructions in the instruction list.

To expand/collapse the instructions in the instruction list:

- Right-click anywhere on the **Logic Flow Lite** Screen. The Editing options box will appear.



- To expand all the instructions, showing the input and output events, click on **Expand All**.
- To collapse all the instructions, click on **Collapse All**.
- To expand an individual instruction, click on the ⊞ symbol next to the input event.
- To collapse an expanded item, click on the ⊟ symbol next to the input event.

Section 4.7 Writing Logic to the device

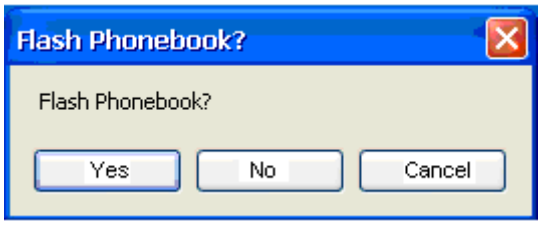
Procedure for Writing the Instructions to the STP

Once you have specified the inputs and outputs to the **STP Lite** in the **Logic Flow Lite** software, you now have to write the commands to the device. This is performed using the **Flash** command.

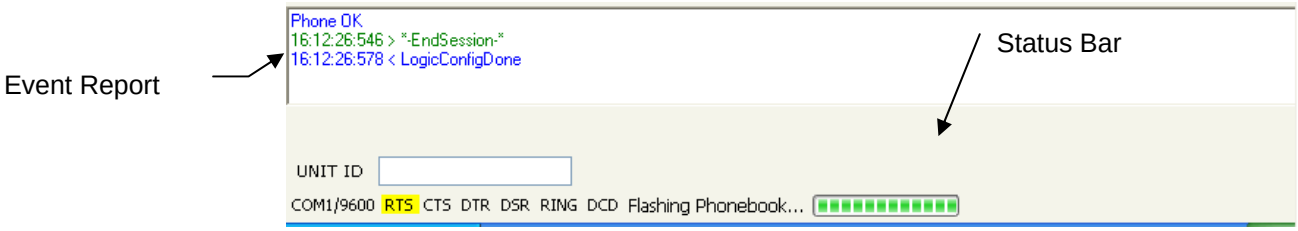
To write the instructions to the STP:

1. When you have completed adding input and output conditions to the **STP Lite**, write the conditions and setups to the controller by clicking on the **Write Logic to Device** option in the main screen.

2. When you click **Ok**, you will receive the "Flash Phonebook?" prompt.



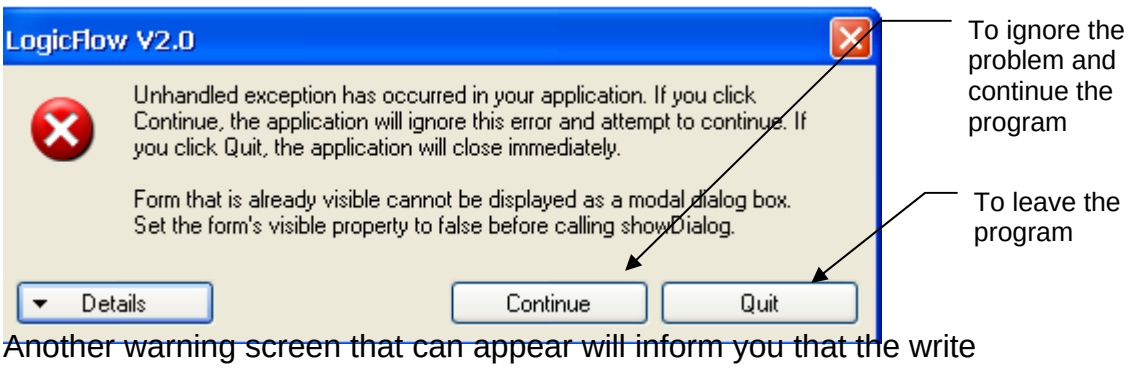
3. Click **Yes**.
   The status bar at the lower part of the **Logic Flow Lite** opening screen will show the progress of the writing to the STP, and you will be informed that the program is flashing the Phonebook.



If the write to the device was successful, you will receive the prompt: "Flash Success".

Troubleshooting a Failed Write to the STP Lite

If the write to the device was not successful, you will receive a warning box, prompting you either to leave the program, or to ignore the problem and continue running the program.



Another warning screen that can appear will inform you that the write to the device failed.

These warning screens indicate that something has caused the **STP Lite** unit to become busy or "hang".

In the event that you encounter either of these warning screens:

1. Reset the device by pressing the Reset button on the **STP Lite** unit.
   The **STP Lite** device will emit intermittent beeps. These beeps allow you to re-program the device if the device is "busy".
2. While the **STP Lite** is still beeping periodically, click on the "Write Logic to Device" command again.

When the device stops beeping, this indicates that the device has been restored to the Startup state. In Startup state, you will have to press Reset to attempt the above procedure again. If the problem persists, contact Technical Support.

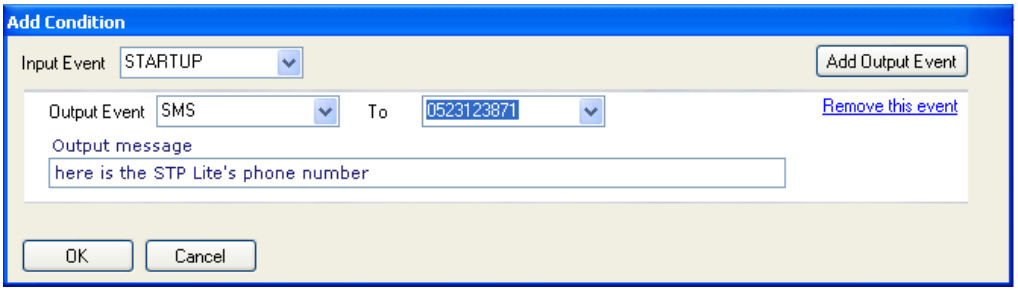
Section 4.8 Some Useful Examples

Finding out the STP's Phone Number

In the event that you received the **STP Lite** device and don't know the phone number associated with it, **Logic Flow Lite** can help you easily find out the number.

To find the Phone Number of the STP:

1. On the **Logic Flow Lite** opening screen, click on the **Add Condition** command.
2. Set the Input Event as **STARTUP**.
3. Set the output event as either **OUTGOING CALL** or **SMS**. If you choose SMS, supply an identifying output message.
4. Provide your cellular phone number in the "To" box.



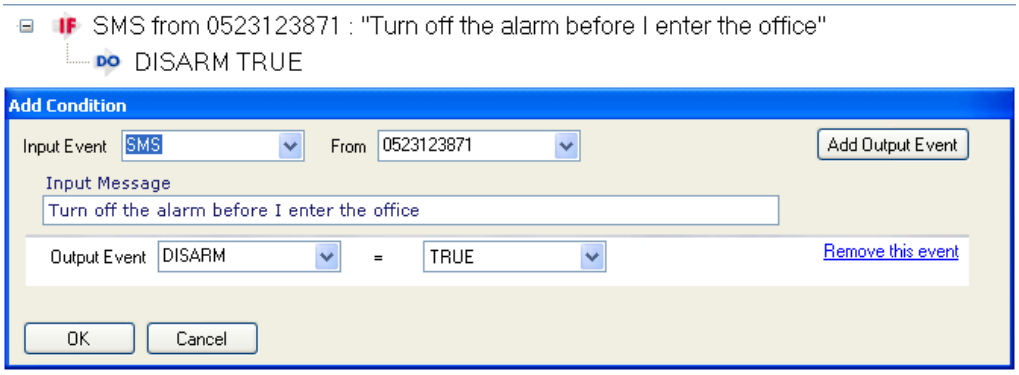
5. Click **OK**, and save the instruction.
6. Click on **Write Logic to Device**.
   The **STP Lite** will automatically execute a Startup. It will then proceed to send an outgoing call or SMS to the cellular phone number you have provided. The Caller ID on your cellular phone will tell you the source of the incoming call or SMS—that is, the number of the **STP Lite** device.

Using the STP Lite's DISARM Option to Set an Alarm

One of the major uses of the **STP Lite** is in setting an alarm for a security system. The task may involve setting an alarm, or disabling it for a certain specified time

To use the DISARM to disable an alarm system:

1. In the **Logic Flow Lite** opening screen, click on the **Add Condition** command.
2. Set the **Logic Flow Lite** input event as **SMS**, and type in the SMS message you wish to send the **STP Lite**.
3. Set the output event as **DISARM**, and select **TRUE** in the "=" box.



The **STP Lite** will thus disable the alarm upon receiving your SMS.
If you want to enable the alarm by means of an SMS message, simply set the DISARM's "=" value to **FALSE**.

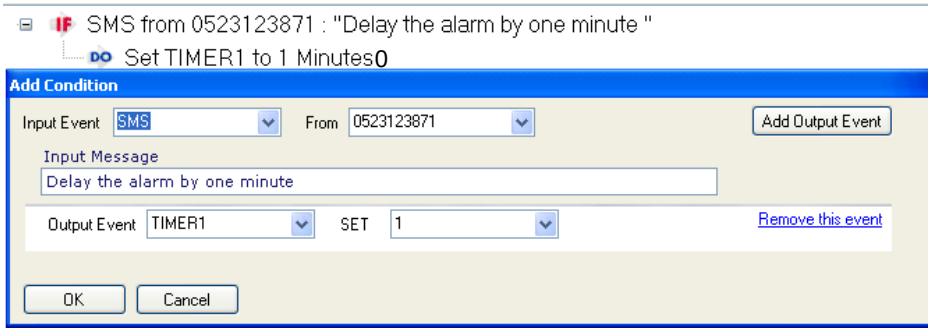
4. Click **OK**, and click on **Write Logic to Device**.

Using the STP Lite's Timer Option

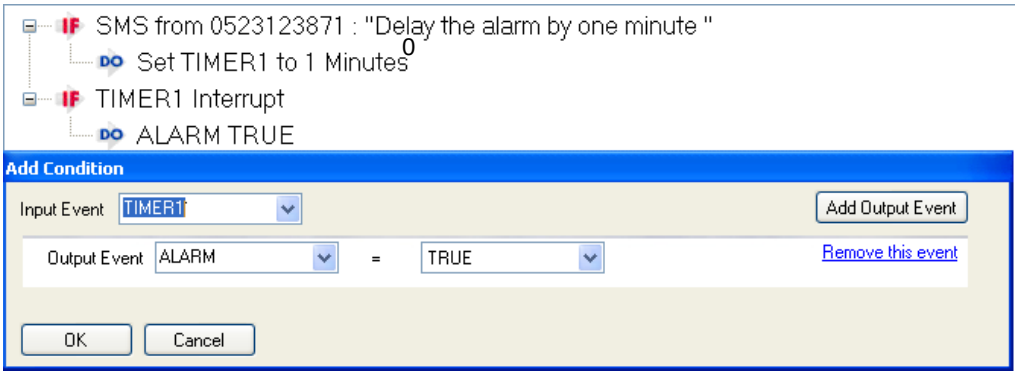
When writing to the **STP Lite**, you are able to send several lines of commands. The TIMER option allows the response of the system to be delayed by a designated number of seconds or minutes. In this manner, it is possible to delay the response of the **STP Lite**, so that certain events will occur later, in the event of specific inputs.

To use the TIMER option to delay an alarm from going off for one minute:

1. In the **Logic Flow Lite** opening screen, click on the **Add Condition** command. .
2. Set the **Logic Flow Lite** input event as **SMS**.
   (For sake of this example, the alarm will be sounded by your sending the **STP Lite** an SMS.)
3. Set the output event as **TIMER1**, supply the number of minutes of delay you wish to program into the device, and click **OK**.
   (As mentioned before, TIMER1 and 2 allow for delays in units of 10's minutes, whereas TIMER3 and 4 allow for delays in units of seconds.)



4. Click on the Add Condition command.
5. Set the **Logic Flow Lite** input event as **TIMER1**, and the Output Event as **ALARM**, and click **OK**.
   The second line of the command to the **STP Lite** will appear on the screen.



6. Click on **Write Logic to Device**.
   Upon your sending the specified SMS to the **STP Lite**, the STP's alarm will go off in one minute (or any amount of delay that you choose for the unit).

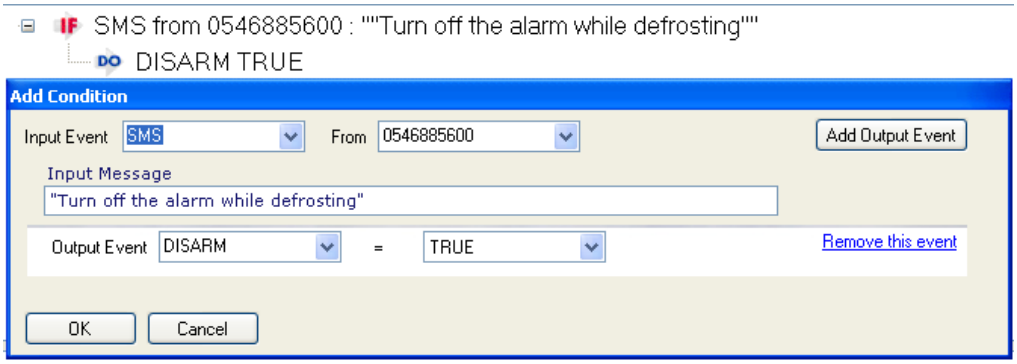
Using the STP Lite's DISARM Option

As demonstrated in the previous example, you can use the **STP Sense** to monitor a refrigerator's temperature, and to send an alarm message in the event that the temperature rises above a certain value.
Let's say that you want to defrost the refrigerator for cleaning. The user will have to disable the alarm, to allow the refrigerator to defrost and

not inadvertently set off the alarm. The DISARM option allows you to disarm the **STP Sense's** outputs (in this case, to prevent it from alerting you of rising temperature).

To use the DISARM to disable an alarm system:

1. In the **Logic Flow Sense** opening screen, click on the **Add Condition** command.
2. Set the **Logic Flow Sense** input event as **SMS**, and type in the SMS message you wish to send the **STP Sense**.
3. Set the output event as **DISARM**, and select **TRUE** in the "=" box.



The **STP Sense** will thus disable the alarm upon receiving your SMS. If you want to enable the alarm by means of an SMS message, simply set the DISARM "=" value to **FALSE**.

4. Click **OK**, and click on **Write Logic to Device**.

Chapter 5: Troubleshooting

Problem No' 1: Unable to read or write data from the configuration menu

Solution suggestions

- In case that the unit is not new (have been used before) press the reset button and right away click on the read or write configuration to device. There is a five seconds window timer that lets you read or write to the device before it starts to configure itself. If you missed the five seconds window you could do the reading or writing after the unit finished restarting.
- Check if the reading or writing request is not preformed during SMS sending or call making.
- Check if the connection from the unit to the computer is ok and every thing is connected flawlessly.

Problem No' 2: Can't send/receive calls, SMS, GPRS

When you have a trigger response that needs to send an SMS or make a call , or send a GPRS message and you aren’t receiving it. There can be some problems making this situation.

Solution suggestions

General suggestions

- Check if the antenna is connected properly.
- Check if the SIM card is placed in the sim card holder properly.
- Check if the destination phone is able to receive SMS or open to incoming calls.
- Check the green led and see if the light is constantly on. If so see problem No'3.

SMS suggestions

- If you see that an SMS is sent (the red led is flashing and the program wrote that SMS has been sent) and you didn’t receive it immediately, wait for a couple of minutes, maybe the mobile phone network is busy, and it takes time.
- Check in the SMS output event the phone number, see if it matches the desired number

Call suggestions

- Check if the phone number you entered is correct.

GPRS suggestions

- Check if the IP and address is correct and the target destination is open to that port.
- Check if the APN, at the configuration window is correct and suitable for the sim card.

Problem No' 3: green led is constantly on

After the startup of the unit, the green led is constantly on, instead of blinking.

Solution suggestions

- Check the connection of the antenna.
- If your SIM card is protected with a pin code, you need to enter the code in the configuration window and write it to the device.
- Check the APN in the configuration window, see if it matches your SIM card.

Problem No' 4: Led's not working

Solution suggestions

- Check the polarity power to the unit.
- If after startup you hear 4 beeps and you see no lights on. Than the led's are burned out.
- In case the unit is powered with battery, check the volts. Maybe the battery is empty.

Chapter 6: For Further Information

For more information about our products, recommendations for accessories, components, online documentation and updates, please visit our website:

www.duetech.gberes.com

Revision History:

Date	Rev	Author
16/04/09	Initial Draft	Yehuda Posnick
10/05/09	1.0	Yossi Grimberg
09/12/09	1.02	Yaron Babar