



Innovative Photonic Solutions

# SetUp Kits

**Get up and Running  
with Lightset™**

Illumination Technologies provides software **SetUp Kits** to make your serial communications debug efforts painless and efficient. Kits come complete with pre-tested cables and the *LightSet* software, eliminating startup delays.

## KEY FEATURES

- Quick and Painless Setup
- Pre-tested Cables
- Exercise Mode
- Board View Mode

## SETUP KITS

### 2520 RS-232 Version

- Serial Cable
- LightSet™ Software for Windows 95/98/NT

### 2550 RS-485 Version

- Serial Cable
- RS-485 Converter
- LightSet™ Software for Windows 95/98/NT

## SOFTWARE

### 2510 Lightset™ Software Only

## CABLES

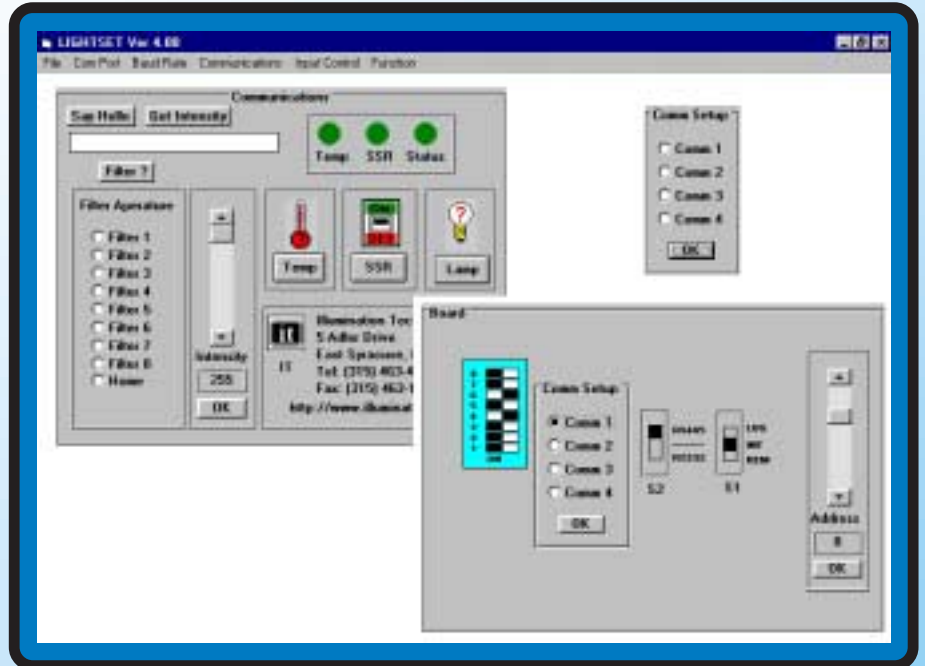
### 2521-06 RS-232 Cable Only, 6 Feet

### 2521-XX RS-232 Cable Only, XX Feet

### 2551-06 RS-485 Cable Only, 6 Feet

### 2551-XX RS-485 Cable Only, 6 Feet

### 2570 RS-232 to RS-485 Converter



## Exercise Mode

The Board Exercise Mode allows the user to test all the functions of the Serial Interface. Just plug in the cables and install the *LightSet* software. Two clicks and the COM port is specified and enabled. Say Hello and you are communicating! Modify and Query all functions including Intensity, Lamp Status, Solid State Lamp Relay and Filter Wheel options (CF1000 only). Any problems? Simple, just go to Board View Mode.

## Board View Mode

This mode allows users to graphically verify proper switch settings for all modes including Baud Rate, Address, Analog Remote, RS-232, RS-485, and Front Panel. Changes in any of the software settings are immediately recognized graphically in this mode. Just click the changes in the pull down menus and adjust the 3900 board to look exactly like the resulting graphic. Saves hours of debug time!

## Programming Example

SetUp Kits provide a quick and painless method for establishing communications with the *Smart-Lite™* Series Lightsources. However the *LightSet* software is limited in its functionality for most applications. Fortunately the *Smart-Lite™* Series can be controlled with a few simple ASCII commands. The following example is a basis for developing software to receive real time feedback from the *Smart-Lite™*.

**VISUAL BASIC 5** (Other versions may need some modification)

- 1) Start a New Form
- 2) Place a control onto the form called MSComm1
- 3) Place a textbox onto the form Text1
- 4) Dimension a variable called MyInputString as String

The following lines opens the COM port for 9600 Baud, No Parity, 8 Data Bits, 1 Stop Bit

This sets up the Comm port, place it in the form\_load() procedure, or in a button\_click() procedure, or where ever you want the Comport to be enabled. You can set this up in the properties for MSComm1 also.

```
MSComm1.Settings = "9600,n,8,1"
MSComm1.CommPort = 1
MSComm1.PortOpen = True
```

Note: The MSComm1.Input function gets all the characters available in the buffer at the time the instruction is executed. If all the characters have not yet arrived, then the input statement will only return the characters in the buffer. Subsequent inputs have to be made until all of the characters have been received. One way to do this follows the examples.

To Output to the Comm Port

### QUERY EXAMPLES

```
MSComm1.Output = "HEL?" + CHR(13) 'HEL - Say Hello and recieve firmware version
MyInputString = MSComm1.Input
Text1.text = MyInputString
```

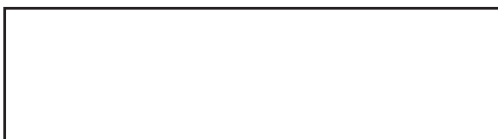
```
MSComm1.Output = "DAC?" + CHR(13) 'DAC - Queries the DAC value (intensity) and returns a number 0 - 255
MyInputString = MSComm1.Input
Text1.text = MyInputString
```

```
MSComm1.Output = "TEM?" + CHR(13) 'TEM - Queries the internal unit temperature, returns temperature in °C
MyInputString = MSComm1.Input
Text1.text = MyInputString
```

```
MSComm1.Output = "LAM?" + CHR(13) 'LAM - Lamp Status tells if the lamp has burned out
MyInputString = MSComm1.Input
Text1.text = MyInputString
```

Note: The sample code shown here is only a portion of the control commands of the *Smart-Lite™* series. Additional information can be found in the operators manual for each lightsource.

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