LIGHTech Fiberoptics, Inc.

EZ 16x16 matriX Controller User's Manual

Version 1.2

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I. Introduction:

LIGHTech's EZ matriX Controller is control software that allows users to manage and configure LIGHTech's LT2000 series products. It supports communication with RS232 and GPIB control interfaces. This software allows users to configure various optical paths by selecting 16 input channels and 16 output channels. EZ matriX memorizes previously selected optical paths to prevent erroneous path selections. Figure 1 shows the interface of EZ 16x16 matriX Control.

| 🕊 LIGHTech EZ 16 | ix16 Matrix Control Ver. | 1.2 | | | |
|--|---------------------------------|-----------------|---------------|--|--|
| Welcome! | You are using | LIGHTech | ר EZ matriX | | |
| Control Type RS-232 GPIB | | | | | |
| Control Address: | COM1 - | | Clear Reset | | |
| Input1 | Input2 | Input3 | Input4 | | |
| Select Path | ✓ Select Path | Select Path 👻 | Select Path 👻 | | |
| 1 | | | | | |
| Input5 | Input6 | Input7 | Input8 | | |
| Select Path | ▼ Select Path | Select Path 📃 👻 | Select Path 👻 | | |
| | | | | | |
| Input9 | Input10 | Input11 | Input12 | | |
| Select Path | 💌 Select Path 🛛 💌 | Select Path 🛛 💌 | Select Path 👻 | | |
| | | | | | |
| Input13 | Input14 | Input15 | Input16 | | |
| Select Path | Select Path | Select Path 🖉 👻 | Select Path 👻 | | |
| | | | | | |
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Figure 1. EZ 16x16 matriX Control Interface

II. Computer Requirement:

Personal computer compatible with follows attribute:

- a. Intel Pentium or AMD-K2 processor or higher
- b. Minimum of 32 MB DRAM
- c. Microsoft Windows 95 / 98 / Me
- d. National Instrument GPIB communication card

OR

RS-232 COM port with a 9-pin or 25-pin "D" type connector

III. Using EZ 16x16 matriX Controller:

This program launches either from the start menu "Start \rightarrow Programs \rightarrow LIGHTech EZ 16x16 matriX \rightarrow LIGHTech EZ 16x16 matriX", or click on the program shortcut on the desktop if it was created during installation.

1. Control Type Setting

Users can change Control Type to RS-232 or GPIB by making a selection in the Control Type Dialog Box (Figure 2). The default selection is RS-232.



Figure 2. Control Type Dialog Box



Figure 3. RS-232 Control Address

2. Control Address Setting

Users can change the Control Address after the Control Type (RS-232 or GPIB) is set.

- If Control Type is "RS-232", Control Address can be either "COM1" or "COM2"(Figure 3). The Control Address is "COM1" by default.
- If Control Type is "GPIB", the Control Address can be any GPIB port between 1~25(Figure 4). User must also manually select the GPIB Address on the LIGHTech's LT2000 series switches to match the GPIB Control Address selected in this program (refer to LT2100 Matrix Switch Operation Manual). The Control Address is GPIB 16 by default.

| Control Address: | GPIB 1 | • | |
|------------------|--------|--------|--------|
| | GPIB 1 | • | |
| | GPIB 2 | -1 | |
| Input1 | GPIB 3 | | |
| Coloot Dath | GPIB 4 | | |
| pelect Fath | GPIB 5 | | |
| | GPIB 6 | | |
| Input5 | GPIB 7 | _ | |
| Select Path | GPIB 8 | • | Select |

Figure 4. GPIB Control Address

3. Path Selection

Users can select 256 paths in various orders. For example, to select input 6 to output 2, users can click "Input6" and pick "Output2" on the drop down list (Figure 5). The "Output2" option will now be hidden from all other selection menus to prevent inadvertent selection of output ports that are already in use. To select the input 3 to output 10, users can click "Input6" and pick "Output2" on the drop down list (Figure 6). Users can chose "Parking" on the drop down list to cut off the optical path or reset the previous choice.



Figure 5. Setting Input 6 to Output 2

| Input1 | Input2 | Input3 | Input4 |
|---------------|-----------------|-----------------|---------------|
| Select Path 📃 | Select Path 📃 💌 | Output 10 | Select Path 👤 |
| | | _ | |
| Input5 | Input6 | Input7 | Input8 |
| Select Path 🗨 | Output 2 📃 💌 | Select Path 📃 💌 | Select Path 📃 |
| | | | |
| Input9 | Input10 | Input11 | Input12 |
| Select Path 💌 | Select Path 🛛 💌 | Select Path 📃 💌 | Select Path 📃 |
| | | | |
| Input13 | Input14 | Input15 | Input16 |
| | | | |

Figure 6. Setting Input 3 to Output 10

IV. Clear All Paths Setting:

All selected paths can be cleared simultaneously by clicking the "Clear" button on the title window. All switches can be reset to off state by clicking the "Reset" button. Figure 7 shows the Clear and Reset buttons on title window.

| Welcome! You are | e using <mark>LIGHTec</mark> ł | EZ matriX |
|------------------------|--------------------------------|-------------|
| Control Type | | |
| © GPIB | | |
| Control Address: Court | | |
| | V | Clear Reset |

Figure 7. Clear and Reset Buttons on Title Window