**LightSync Line Voltage Dimmer Programming**

The LightSync Line Voltage Dimmer is designed to control dimmable line voltage lighting loads. Each of the 4 independent outputs can dim up to 500 Watt loads. Each output is provided with an associated relay for turning the dimming load ON and OFF. This feature (if used) uses panel outputs beyond the lighting controller's existing relays, and must be addressed per table 1. If the dimmer is connected to a 32 size panel and on/off control is desired, the dimmer should be addressed to 09, and is programmed using relays 33-36. The dimmer may be used in conjunction with a photo sensor controller for programmable daylight harvesting, or controlled using Timers, Inputs or Presets from the lighting controller. Outputs are programmed to respond up to 16 control instances per channel. The dimmer can be programmed using the lighting control panel's keypad or through the intuitive software provided.

| Dimmer Node | Dimmer Output/Relay | Panel Relay | Output Address | | Dimmer Node | Dimmer Output/Relay | Panel Relay | Output Address |
|---|---|---|---|---|---|---|---|---|
| 01 | Output 1 | nn.01 | nn.01.01 | | 09 | Output 1 | nn.33 | nn.09.01 |
| | Output 2 | nn.02 | nn.01.02 | | | Output 2 | nn.34 | nn.09.02 |
| | Output 3 | nn.03 | nn.01.03 | | | Output 3 | nn.35 | nn.09.03 |
| | Output 4 | nn.04 | nn.01.04 | | | Output 4 | nn.36 | nn.09.04 |
| 02 | Output 1 | nn.05 | nn.02.01 | | 0A | Output 1 | nn.37 | nn.0A.01 |
| | Output 2 | nn.06 | nn.02.02 | | | Output 2 | nn.38 | nn.0A.02 |
| | Output 3 | nn.07 | nn.02.03 | | | Output 3 | nn.39 | nn.0A.03 |
| | Output 4 | nn.08 | nn.02.04 | | | Output 4 | nn.40 | nn.0A.04 |
| 03 | Output 1 | nn.09 | nn.03.01 | | 0B | Output 1 | nn.41 | nn.0B.01 |
| | Output 2 | nn.10 | nn.03.02 | | | Output 2 | nn.42 | nn.0B.02 |
| | Output 3 | nn.11 | nn.03.03 | | | Output 3 | nn.43 | nn.0B.03 |
| | Output 4 | nn.12 | nn.03.04 | | | Output 4 | nn.44 | nn.0B.04 |
| 04 | Output 1 | nn.13 | nn.04.01 | | 0C | Output 1 | nn.45 | nn.0C.01 |
| | Output 2 | nn.14 | nn.04.02 | | | Output 2 | nn.46 | nn.0C.02 |
| | Output 3 | nn.15 | nn.04.03 | | | Output 3 | nn.47 | nn.0C.03 |
| | Output 4 | nn.16 | nn.04.04 | | | Output 4 | nn.48 | nn.0C.04 |
| 05 | Output 1 | nn.17 | nn.05.01 | | 0D | Output 1 | nn.49 | nn.0D.01 |
| | Output 2 | nn.18 | nn.05.02 | | | Output 2 | nn.50 | nn.0D.02 |
| | Output 3 | nn.19 | nn.05.03 | | | Output 3 | nn.51 | nn.0D.03 |
| | Output 4 | nn.20 | nn.05.04 | | | Output 4 | nn.52 | nn.0D.04 |
| 06 | Output 1 | nn.21 | nn.06.01 | | 0E | Output 1 | nn.53 | nn.0E.01 |
| | Output 2 | nn.22 | nn.06.02 | | | Output 2 | nn.54 | nn.0E.02 |
| | Output 3 | nn.23 | nn.06.03 | | | Output 3 | nn.55 | nn.0E.03 |
| | Output 4 | nn.24 | nn.06.04 | | | Output 4 | nn.56 | nn.0E.04 |
| 07 | Output 1 | nn.25 | nn.07.01 | | 0F | Output 1 | nn.57 | nn.0F.01 |
| | Output 2 | nn.26 | nn.07.02 | | | Output 2 | nn.58 | nn.0F.02 |
| | Output 3 | nn.27 | nn.07.03 | | | Output 3 | nn.59 | nn.0F.03 |
| | Output 4 | nn.28 | nn.07.04 | | | Output 4 | nn.60 | nn.0F.04 |
| 08 | Output 1 | nn.29 | nn.08.01 | | 10 | Output 1 | nn.61 | nn.10.01 |
| | Output 2 | nn.30 | nn.08.02 | | | Output 2 | nn.62 | nn.10.02 |
| | Output 3 | nn.31 | nn.08.03 | | | Output 3 | nn.63 | nn.10.03 |
| | Output 4 | nn.32 | nn.08.04 | | | Output 4 | nn.64 | nn.10.04 |

Table 1 Dimmer Addressing and Control

**Programming Procedure**

1. From the home screen as shown in figure 1, press ►EDIT **(Networked Panels connect through the Network Controller to the panel node)**
2. Press ▼until OTHER DEVICES appears
3. Press ►OTHER DEVICES
4. Press ►DIMMER OUTPUTS
5. Press ▼or ▲to select the dimmer address (set with the rotary switches on the hardware)
6. Press ►ACTIVE to enable the device (if not enabled) Communications should state COM OK.
7. Press ► OUTPUT, and then ▼or ▲ to select one of the 4 outputs.
8. Press ►CONFIGURE to access settings for:

**Photocell Tracking:** For setting the dimming to track lighting levels.
Press ►PC TRACKING, then TRACKING (Select 2 point, 3 point or set-point) Note: This overrides any other control points.

**Fade Rate:** The time it takes the dimmer to transition.
Press ► FADE RATE, and then ▼or ▲ to set time from 0 to 300 seconds. For relay control, press ► FADE/RELAY, select % ON/OFF levels, relay, and control.

**Minimum and Maximum Output Levels:** Output levels for each end of the scale.
Press ►MIN OUTPUT LEVEL or MAX OUTPUT LEVEL, select ► MODE, and then ▼or ▲ to set the fixed value from 0 to 100% for each option.

**Power-On Levels:** Dimming level at panel power up.
Press ▼until POWER-ON LEVEL appears
Press ►POWER-ON LEVEL and then ▼or ▲ to set power-on level for that channel.

**Control Options:** Allows up to 16 instances per channel to control the dimming.
Press ▼until CONTROL OPTIONS appears
Press ► CONTROL OPTIONS and then ▼or ▲ for an unused control.
PRESS ► TYPE to set a type of control (Timer, Input, or Preset) and then set a source and an action.

**DMX Control:** DMX512 control of the dimming channels.
Press ▼until DMX CONTROL appears
Press ► DMX CONTROL, Press ▼or ▲ to set the DMX control channel.

**Dimmer Status/Control:** Status and control of each dimming output.
Press ▼until STATUS/CONTROL appears
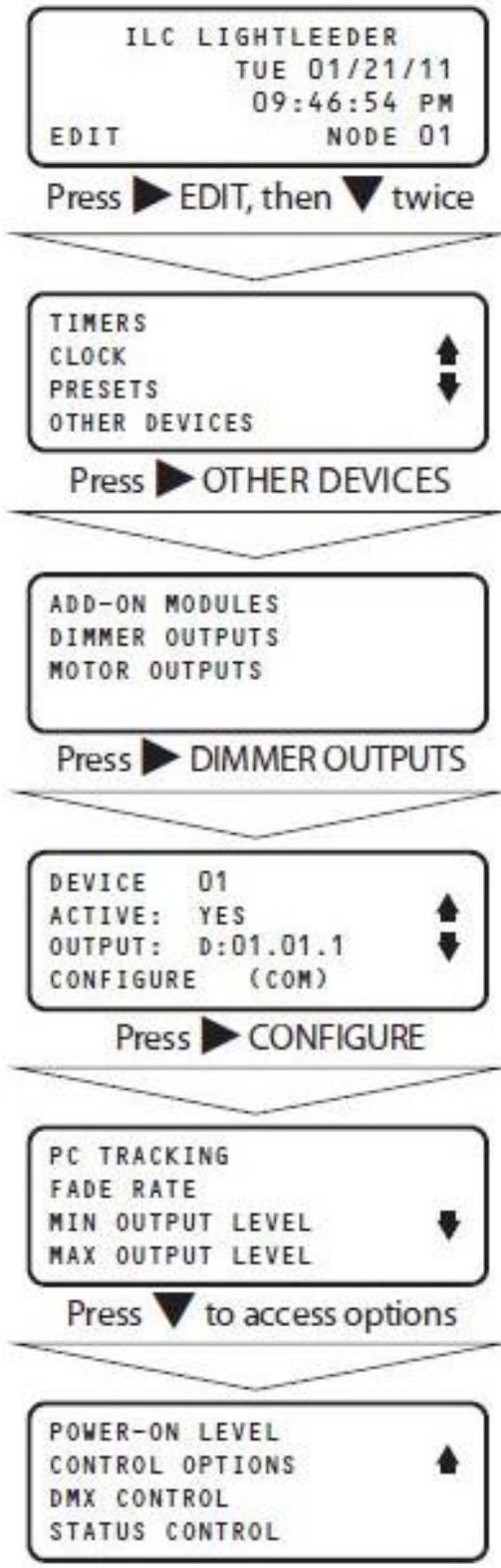Press ► STATUS/CONTROL, and then press ►RAISE or ►LOWER to control the channel.
Press HOME to exit

```
       ILC LIGHTLEEDER
             TUE 01/21/11
             09:46:54 PM
EDIT            NODE 01
```

Press ▶ EDIT, then ▼ twice

```
TIMERS
CLOCK                  ▲
PRESETS                ▼
OTHER DEVICES
```

Press ▶ OTHER DEVICES

```
ADD-ON MODULES
DIMMER OUTPUTS
MOTOR OUTPUTS
```

Press ▶ DIMMER OUTPUTS

```
DEVICE   01
ACTIVE:  YES           ▲
OUTPUT:  D:01.01.1      ▼
CONFIGURE  (COM)
```

Press ▶ CONFIGURE

```
PC TRACKING
FADE RATE
MIN OUTPUT LEVEL       ▼
MAX OUTPUT LEVEL
```

Press ▼ to access options

```
POWER-ON LEVEL
CONTROL OPTIONS        ▲
DMX CONTROL
STATUS CONTROL
```

Figure 1 Programming Navigation

**Example Step-by-Step Programming:**

**LightLEEDer-8 panel address 01:** Communicating with the following LightSync devices from the local LightSync port.
**LightSync Line Voltage Dimmer address 03:** Using dimmer on/off control with relays 9-12.
**LightSync 3-button data line switch:** Button 1 raises dimming offset of 10% with every push. Button 2 lowers the dimming offset of 10%. Button 3 presets the dimming to 100%. All three buttons revert back to photo sensor tracking after 10 minutes.
**LightSync Photo Sensor address 02:** This photo sensor maintains the lighting level at approximately 10fc unless one of the 3-buttons switches has overriding the level.

1. From the home screen as shown in figure 1, press ►EDIT **(Networked Panels connect through the Network Controller to the panel node)**
2. Press ▼until OTHER DEVICES appears
3. Press ► OTHER DEVICES
4. Press ► DIMMER OUTPUTS
5. Press ▲ until device address 03 appears (set the rotary switches on the hardware to 03)
6. Press ► ACTIVE to enable the device (if not enabled) Communications should state COM OK.
7. Press HOME to exit.
8. Press ► EDIT
9. Press ► INPUTS
10. Press ► Configure Device (LS DEVICE 01is default) and then ▲ until the type is 3 BUTTON. Press ► BACK
11. Press ► CONFIGURE INPUTS, Press ► TYPES, ► TYPES A/B, ► TYPE A and then ▲ until the type is set to P.B. ON/OFF
12. Press BACK twice and then ▲ once for button 2 and configure like the last step. Complete the button configuration for button 3 the same way. Press BACK once.
13. Press ▲ once to select LS device 02
14. Press ► Configure Device and then ▲ until the type is PCELL 02S. Press ► HOME
15. Follow steps 1 – 4 and then ▲ until dimming device 03, and then Press ► Configure
16. Press ► PC TRACKING and adjust NODE to 01 and DEVICE to 02.
17. Press ► SCALE and then ▲ until it reads 116/255. Press BACK twice.
18. Press ► FADE RATE and then ▲ until it reads 10 seconds. Press BACK once.
19. Press ► MIN OUTPUT LEVEL and then ▲ until it reads 015%. Press BACK once.
20. Scroll ▼ once and press ► POWER-ON LEVEL and then ▲ until it reads 050%. Press BACK once.
21. Scroll ▼ once and press ► CONTROL OPTIONS.
22. Press ► TYPE for control 1 until INPUT is selected.
23. Press ► SOURCE and then select ► NODE, DEVICE, and INPUT. Set to 01.01.1
24. Select BACK once and then select ► ACTION. Select ▲ until RAISE 10% appears.
25. Press ► REVERT and then ▲ until it reads 010 minutes.
26. Select BACK once and then ▲ once for control 02. Press ► TYPE for control 2 until INPUT is selected.
27. Press ► SOURCE and then select ► NODE, DEVICE, and INPUT. Set to 01.01.2 Press BACK once.
28. Select ► ACTION. Select ▲ until LOWER 10% appears.
29. Press ► REVERT and then ▲ until it reads 010 minutes.
30. Select BACK once and then ▲ once for control 03. Press ► TYPE for control 3 until INPUT is selected.
31. Press ► SOURCE and then select ► NODE, DEVICE, and INPUT. Set to 01.01.3 Press BACK once.
32. Select ► ACTION. Select ▲ until GOTO 100% appears.

33. Press ► RATE and then ▲ once to select INSTANT. Press ► REVERT and then ▲ until it reads 010 minutes.
34. Press ► HOME