LC8 - T455 PHOTO CONTROL

FOR HOMEWORKS®, RADIO RA & OTHER SYSTEMS USING PLUG IN POWER

INSTALLATION AND MAINTENANCE MANUAL (IMM)

PLC Sensors

Control Devices

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GENERAL

1. *Please read these instructions carefully to prevent any possible injury or equipment damage.*
2. *Installer must be a qualified and experienced service technician.*
3. *Verify the product ratings to confirm that this product will satisfy your requirements and application.*

INTRODUCTION

The LC8 automatically switches an electrical lighting load in response to changes in natural daylight. The low voltage system consists of a control board and a remotely mounted photo-diode sensor and a plug in transformer. The controller comes in a plastic enclosure suitable for surface mounting.

INSTALLATION

Mount the LC8 inside of a control panel or in a location that protects it from the environment. Wiring or mounting holes can be drilled in the enclosure, but remove the board first. Check that any mounting screws do not contact the back of the board. The enclosure can also be secured with adhesive foam tape.

CONNECTIONS

WARNING*: TURN OFF SUPPLY VOLTAGE BEFORE CONNECTING TO TERMINALS.*

The LC8 interfaces with several LUTRON input devices. Two keypads may be used: the HWV-IP5 from the LUTRON HOMEWORKS® line or the HWI-KP5 from the LUTRON HOMEWORK ® Interactive line. The LC8 may also be connected to the Contact Closure Input Board HWI-CCI-8 from the LUTRON HOMEWORKS® Interactive line. For " wireless" control, connect the LC8 to the LUTRON RA-SCI Switch Closure Interface. **See Figure 1 for Wiring Diagram**.

1. *Connect 24 VDC supply voltage to terminals 4 and 5 as shown on the enclosure cover. Terminal 5 is +24VDC & Terminal 4 is the DC return.*

2. *Connect the CES sensor cable to terminals 1, 4, and 5. The RED wire connects to terminal 5, The Black wire connects to terminal 4, and the Yellow wire connects to terminal 1.*

3. *Connect the LC8 relay terminal 7 to the "Common" input on one of the LUTRON devices listed above. Relay terminal 8 should be connected to the "Input #1" or "Scene 1" on one of the LUTRON devices listed above.*

PROGRAMMING GUIDELINES

Using the proper Setup Guide, or Programming Utility for the Lutron device being connected to the LC8, the affected "input" should be programmed with the MAINTAINED function and as NORMALLY OPEN.

CALIBRATION

This section describes how to set the HIGH and LOW setpoints for when the lights will turn OFF and ON. This region between these setpoints is called the dead-band zone. It is recommended that a PC Simulator is used during the calibration. If you have one, refer to the PC Simulator instruction manual. Record the High and Low setpoint voltages for future reference.

1. *Switch the Input Time Delay Switch OFF (UP position), located on the left side of the LC8.*

2. *To adjust the low (Lights ON) setpoint, manually switch the lights being controlled to OFF. Obtain the desired natural light level required for the lights to turn ON.*

3. *With a screwdriver, rotate the LOW (ON) setpoint knob COUNTER-CLOCK-WISE until the LED below it just barely lights. The lights will turn ON if the natural light level falls below this minimum light level. When the LC8 turns ON the lights, the LED near terminal 8 will turn OFF to indicate a "lights ON" condition.*

4. *To adjust the high (LIGHTS OFF) setpoint, manually switch the lights being controlled to ON, and open any blinds. Obtain the desired natural light level required for the lights to turn off.*

5. *Start with the high setpoint knob fully clockwise. With a screwdriver rotate the HIGH (OFF) setpoint knob COUNTERCLOCKWISE until the LED above it just barely lights. The lights will now turn OFF if the natural light level rises above this maximum light level.*

NOTE*: For Outdoor sensing both setpoint knobs can be adjusted to the same light level so that the LC8 will switch the lights ON and OFF at a particular natural light level. However, a dead-band zone, as described above, can be added if there is influence from other light sources.*

6. *Switch the Input Time Delay Switch ON (DOWN position) for normal operation.*

TESTING

1. *Switch the Input Time Delay Switch OFF (UP position) and remove the yellow sensor wire from terminal 1.*

2. *Short terminals 1 and 2 together. The relay will de-energize or open, and all the LED's ON the LC8 will be OFF.*

3. *Remove the short between terminals 1 and 2. The relay will energize or close and all the LED's on LC8 will be ON.*

4. *Switch the Input Time Delay Switch back to ON (DOWN position). Observe the controlled light to check if they turn ON and OFF as desired. If not, adjust as follows:*

FINE ADJUSTMENT

1. *Make all adjustments with the Input Time Delay Switch in the OFF (UP) position. Remember to switch it back ON (DOWN) after adjustments are finished.*

2. *To switch the lights ON or OFF at a* **HIGHER LIGHT LEVEL** *rotate the respective High or Low Setpoint Knob in* **COUNTERCLOCKWISE**.

3. *To switch the lights ON or OFF at a* **LOWER LIGHT LEVEL** *rotate the respective High or Low Setpoint Knob in* **CLOCKWISE**.

   The unit is now set and requires no further adjustments.

MAINTENANCE

Every 6 months inspect the wiring for broken or frayed connections. Occasionally, wipe clean the plastic enclosure.

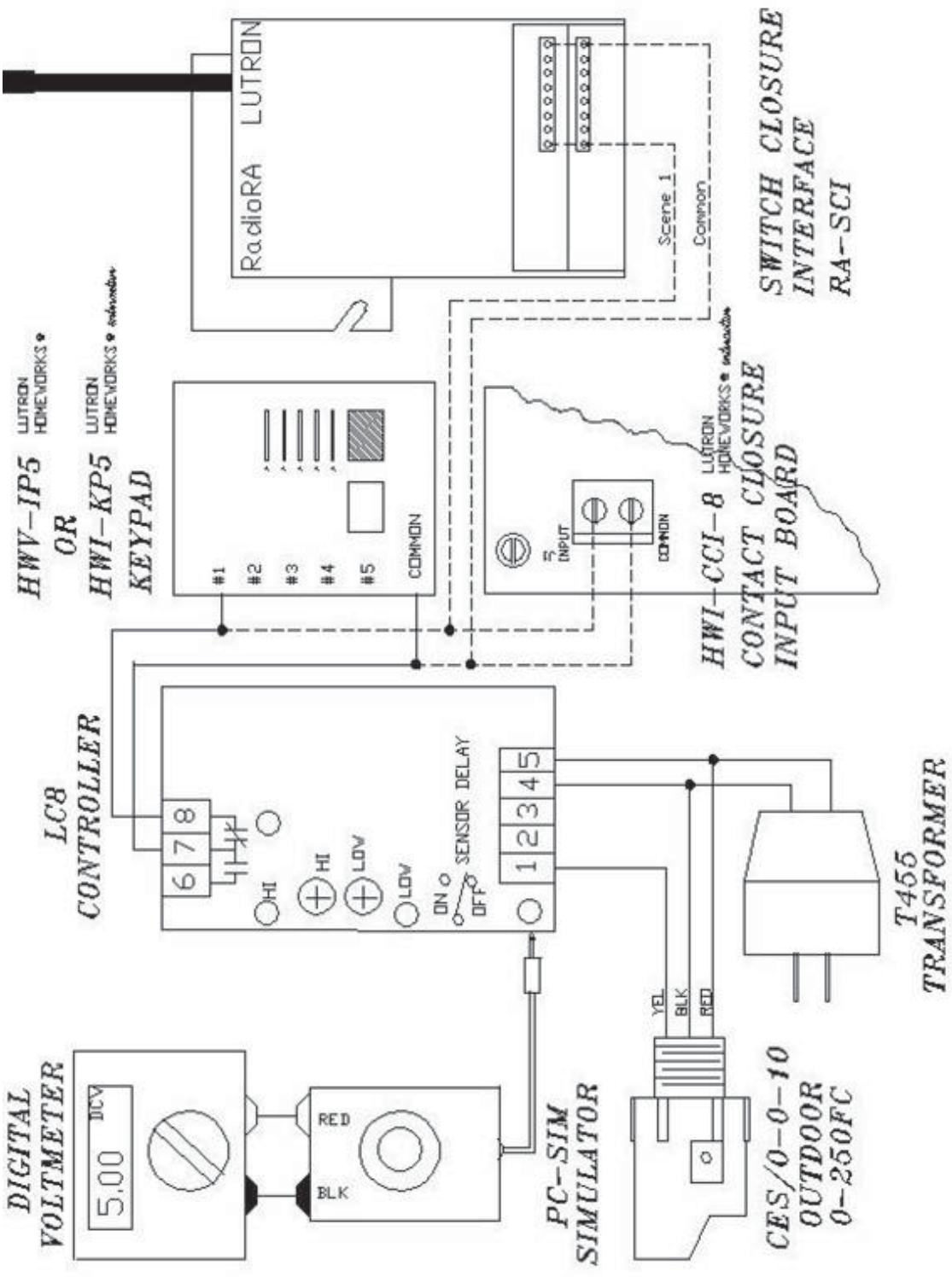

FIGURE 1: LC8 / LUTRON CONNECTION DRAWING

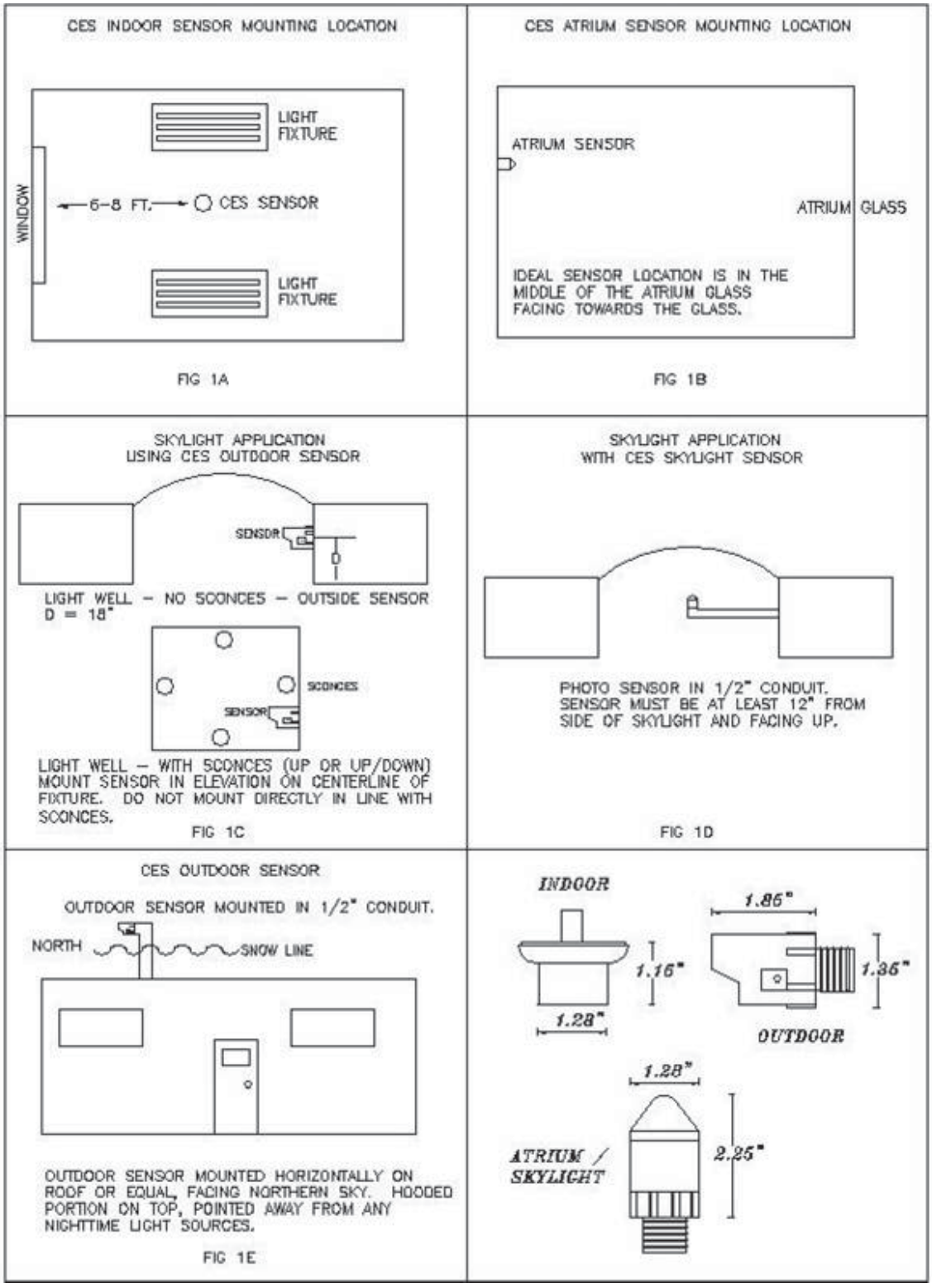

FIGURE 2: CES SENSOR MOUNTING LOCATION