The AWC: A Functional Description

The AWC consists of an LCD screen and a keypad of control buttons. It can be set to operate in either a Manual or Automatic mode. In the Automatic mode, the IntelaSun® logic keeps the settings based on the sun and room sensors. In the Manual mode, the user directly sets the SolaBlade® angles and daylight levels. Up to 4 Zones and Branches can be controlled by a single controller.

Our AWC communicates with the glazing panels and is powered by a CAN Bus via a cat 5 cable with an RJ-45 connector.

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For more information on the AWC-25 controller, please contact us at 1-800-759-6985 or visit our website at cpidaylighting.com
Automatic Wall Controller Elements
The elements that can be displayed on the AWC LCD are:

- The Daylighting bar appears only in the Automatic mode and indicates the user setting for the desired room light level on a scale of 10-100.
- Digital display of the SolaBlades’ actual angle. Note: In the Manual mode, the word MANUAL appears under it to indicate that the AWC is in that mode.
- Indicates the SolaBlades’ actual angle.
- Indicates the Zone/Branch to which the settings apply.
- Shows that the current Zone is set to Dim mode, i.e., the Quick Dim button has been pressed and the SolaBlades® are positioned to 0 degrees.
- AWC controls are locked.
- Appears twice: above the angle symbol it indicates that the sun sensor is operational; below the angle symbol it indicates that the room sensor is operational.
- The Occupancy Sensor Input is active and controlling the lighting.
- The E-Light Relay is operational.
- The system is being controlled by an external computer.
- The blades are angled such that direct sunlight is entering.
- The blades are angled such that diffused sunlight is entering.

Indicates the system is in the Test mode.
Indicates left or right sunrise direction for initial system preset per Zone.
In addition, there are text messages that can appear:

EXT. ANALOG CONTROL - external analog louver positioning is active.
MAPPING - illuminated steadily or flashing depending on if the system is in either a Full or Quick mapping session, respectively.

AWC Expanded View
AWC Operating Instructions

A quick Automatic Wall Controller operating instruction set is affixed to the cover of the control keypad:

<table>
<thead>
<tr>
<th>Operating Instructions</th>
<th></th>
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<tbody>
<tr>
<td><strong>For Multi-Zone Systems:</strong> Press ZONE to select the required zone A, B, C, or D</td>
<td></td>
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<tr>
<td><strong>MANUAL OPERATION</strong></td>
<td><strong>AUTOMATIC OPERATION</strong></td>
</tr>
<tr>
<td>1. Press AUTO-MAN button to select MANUAL mode</td>
<td>1. Press AUTO-MAN to select AUTO mode</td>
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<tr>
<td>2. Press ▶️ ‒ ▼️ or ▼️ ‒ ▶️ to change daylighting level</td>
<td>2. Press ▶️ ‒ ▼️ or ▼️ ‒ ▶️ to set desired daylighting level</td>
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<tr>
<td>3. Display shows blade position (orientation and degree)</td>
<td>3. Display shows desired setting of room daylight level (on 0 to 100 scale)</td>
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</table>

**Quick Dimming**

1. Press QUICK-DIM to quickly minimize daylight level
2. Press QUICK-DIM again to resume previous daylight level

Refer to operating instruction booklet for product model # AWC-25 for detailed instructions and settings, and feel free to contact us with any questions, comments, concerns you may have regarding this product. Call us at 1-800-759-6985 or visit our website at www.cpidaylighting.com
Daylighting Settings

Turning The System On

1. Press the On-Off button. Note that the Test symbol is displayed on the LCD indicating that the system is performing self tests.
2. Wait until the Test symbol vanishes from the LCD indicating that the self tests are completed. Upon power on, the AWC starts in the Manual mode, you have two options:
   - Manually set the angle (by pressing the Right Rotation or Left Rotation buttons) until the desired daylighting level is achieved, and either stay in the Manual mode or switch to the Automatic mode by pressing the Auto.Manu. button in which case, the system will automatically maintain this daylighting level
   - Press the Auto.Manu. button to set the AWC to the Automatic mode, and adjust the relative room light intensity to the desired level

Inserting Automatic Settings

In the Automatic mode, the daylighting settings are automatically stored in the system once set. The system will track the sunlight and open and close the SolaBlades® to maintain the desired daylighting. If there are Zones, up to 4 different settings can be applied.

The Automatic mode is only available if the room sensor is connected. The availability of the room sensor is indicated by the display of the Room Sensor symbol on the LCD. If the room sensor is disconnected, the respective icon (as well as the Daylighting bar) is not displayed.

To Insert Automatic Settings:

1. If there are Zones, select the Zone by pressing the Zone button. Once AWC can control up to 4 Zones, labeled A, B, C, and D. Pressing the Zone button toggles through the Zones. The Zone label appearing is the Zone to which the settings will be applied. If there is only one Zone in the system, this step can be skipped.
2. Press the Left Rotation or Right Rotation button until the daylighting in the area is as desired. Check the Daylighting Bar displayed on the LCD. The solid bars indicate the amount of desired daylighting being set.
3. Repeat steps 1 and 2 for the other Zones as needed.
Adjusting Automatic Settings

Even if the Sun Tracking Automated Daylighting System is in the Automatic mode, the daylighting settings can be adjusted.

To Adjust the Automatic Settings:

1. If there are Zones, select the desired Zone by pressing the Zone button.
2. Press the Right or Left Rotation button to adjust the daylighting levels, as indicated on the Daylight Bar display. The solid bars indicate the amount of desired daylighting being set (10 is least, and 100 is maximum). The highest segment being set will blink, and if no button is pressed, the SolaBlades® will be rotated and the segment will stop blinking.

Manually Setting Daylighting

Unlike the Automatic mode, SolaBlades set manually stay at the angle to which they have been set. If there are Zones, different settings can be applied to each Zone individually.

To Manually Set the Daylighting:

1. If there are Zones, select the desired Zone by pressing the Zone button. One AWC can control up to 4 Zones, labeled A, B, C, and D. Pressing the Zone button toggles through the Zones, with the Zone appearing in the label being the Zone to which the settings will be applied.
2. Press the Auto.Manu. button so that the Manual mode is displayed on the LCD.
3. Press the Left or Right Rotation button until the daylighting in the area is as desired.

Quick Dim Feature

The Quick Dim option is used to temporarily shut the SolaBlades for an area (for example if a presentation is being given and the room needs to be dark). This option can be used whether the Sun Tracking Automated Daylighting System is in the Automatic or Manual mode.

To Activate the Quick Dim:

Press the Quick Dim button. Note that the room darkens and the Quick Dim symbol is displayed on the LCD.

To Deactivate the Quick Dim:

Press any button except for the On-Off button. Note that the room daylighting returns to what it was before the SolaBlades were closed.
Other Daylighting Options

Diffused Sunlight Vs. Direct Sunlight

You have two lighting modes available: Direct Sunlight and Diffused Sunlight.

**Direct Sunlight Mode:** The SolaBlades® are, for the most part, set in parallel with the sun’s rays. That is, the sun rays enter straight through the SolaBlades, thus providing maximum heating energy in addition to light. This setting may be advantageous for winter conditions.

**Diffused Sunlight Mode:** The SolaBlades are, for the most part, set to be roughly perpendicular to the sun’s rays, such that the rays are reflected from the back side of the blades. Diffused lighting makes use of the physical fact that light hitting at an angle delivers less energy per square foot than light hitting directly. This means that the area being lighted receives less heat, and is therefore cooler. In addition, this mode will further reduce possible glare associated with direct sunlight through glass. This setting may be advantageous for summer conditions.

**To Set the SolaBlades for Diffused Sunlight (assumes that the system has been set for the Direct Sunlight mode):**

1. Make sure that the system is in the Automatic mode.
2. Repeatedly press the Set button to scroll through the options until the Direct Sunlight icon appears blinking on the LCD.
3. Press the Right Rotation button and note that the Diffused Sunlight icon is now displayed.

**To Set the SolaBlades for Direct Sunlight (assumes the system has been set for the Diffused Sunlight mode):**

1. Make sure that the system is in the Automatic mode.
2. Repeatedly press the Set button to scroll through the options until the Diffused Sunlight icon appears flashing on the LCD.
3. Press the Left Rotation button and note that the Direct Sunlight icon is now displayed.
Locking The Controller

To prevent someone inadvertently changing the controller settings, the AWC buttons can be locked.

To Lock the AWC:

1. Press and hold the Set button for 6 seconds. This puts the AWC into a special mode.
2. Press and release the Set button until the Lock icon is displayed blinking on the LCD.
3. Press the Right Rotation button. The Lock icon is displayed steady, indicating that the buttons have been locked.

When the AWC is locked, all of the buttons with the exception of On-Off are disabled. If any button is pressed, the Lock icon blinks to let you know that the buttons are disabled.

To Unlock the AWC:

Press and hold the On-Off button for 10 seconds. Note that the Lock icon is no longer displayed.

E-Light

The E-Light function automatically turns off the electric lighting of a room (or area) when sufficient daylighting is detected, and turns it on when no light is detected. This option of reducing artificial lighting when daylighting is available results in energy cost savings and it is a good practice for Green and Sustainable design.

There are two ways in which the E-Light can be connected to the system: Directly to a contact relay in the system, or via a Dimmer switch that is connected to the system.

If there is more than one Zone in the system, the E-Light can be connected to just one of them. For multiple Zones, each could have its E-Light and the setting for each would be on an individual Zone basis. For single Zones, the E-Light can be connected by way of a Dimmer switch. Note that the Room Occupancy Sensor (if present) overrides the E-Light.

To Enable an E-Light Connected to a Contact Relay (either Automatic or Manual mode):

1. Press the Zone button until the Zone attached to the E-Light is displayed on the icon.
2. Repeatedly press the Set button to scroll through the options until the E-Light icon appears blinking on the LCD. If the E-Light is disabled, "0" is the displayed icon.
3. Press the Right Rotation button. Note that the letter "F" is displayed in the icon and that the icon display goes steady.

To Disable an E-Light Connected to a Contact Relay:

1. Press the Zone button until the Zone attached to the E-Light is displayed in the Zone icon.
2. Repeatedly press the Set button to scroll through the options until the E-Light icon appears blinking on the LCD. If the E-Light is enabled, "F" is displayed in the icon.
3. Press the Left Rotation button. Note that "0" is displayed in the icon and the icon display goes steady.
Setting the E-Light Dimmer

If your E-Light is connected to a Dimmer switch, you can set the intensity of the E-Light as follows:

1. Press the Zone button until the Zone attached to the E-Light is displayed in the Zone icon.
2. Repeatedly press the Set button to scroll through the options until the E-Light icon appears blinking on the LCD.
3. Press the Right Rotation button to increase the intensity or the Left Rotation button to decrease the intensity. The intensity level ranges from 0 (off) to 9 (maximum) and is displayed in the icon.

Room Occupancy Sensor

A Room Occupancy sensor is a device that detects if anyone has entered the area, in which case, it turns the daylighting on. When the area is not occupied, the sensor turns the daylighting off and darkens the room. This option of reducing daylighting when not needed reduces the solar heat gain into the space, resulting in possible energy cost savings. The sensor is a commercially available product and is not supplied as part of the Sun Tracking Automated Daylight System, but the system’s circuitry can be connected to it. Note: If there is both an E-Light connection and Room Occupancy sensor for the same area, the Room Occupancy sensor overrides the E-Light function.

To Enable the Room Occupancy Sensor:

1. Press the Zone button until the Zone attached to the sensor is displayed in the Zone icon.
2. Repeatedly press the Set button until the Room Occupancy sensor icon appears blinking on the LCD. If the sensor has not been enabled, only the contour appears.
3. Press the Right Rotation button. Note that the icon stops blinking and the silhouette is filled.

To Disable the Room Occupancy Sensor:

1. Press the Zone button until the Zone attached to the sensor is displayed in the Zone icon.
2. Repeatedly press the Set button until the sensor icon appears blinking on the LCD.
3. Press the Left Rotation button. Note that the icon stops blinking and only the silhouette is displayed.