AV Gateway - Part# C156.269

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Section 1 - Mounting to Structure

1. Determine mounting location of AV Gateway and mark on wall or ceiling.
2. Locate Mounting Bracket and provided mounting hardware.
3. Line up the mounting holes on the back of the AV Gateway with the mounting pegs on the mounting bracket.
Section 2 - 3rd Party Component Integration Methods

The AV Gateway allows various 3rd party control components to integrate with an IntelliFlex I/O network.

The integration methods supported are:

1. RS-232 and RS-485 serial communication
2. Contact Closure
3. Low Voltage Input
4. IR

By default, all inputs will control every shade in the network.

To limit the operation to select groups of shades use the following procedures
Section 3.1 – Setting Groups

1. Select SERIAL from MAIN MENU.

2. Select GROUPS.

3. There are up to 64 groups that can be set. SELECT THE GROUP NUMBER to configure from the list.

4. Select CUSTOM to define a group of shades to control.

5. After initializing, one shade will begin to identify. SELECT ADD to assign that shade to the group, or, SKIP to move on to next shade. Once all shades have been added to the group SELECT DONE.
### Section 3.2 – Serial Protocol

Serial interface uses an ASCII protocol for communication as described below:

<table>
<thead>
<tr>
<th>START</th>
<th>ADDRESS</th>
<th>COMMAND</th>
<th>END</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Char</td>
<td>2 Chars</td>
<td>1 - 3 Chars</td>
<td>1 Char</td>
</tr>
<tr>
<td>G</td>
<td>XX</td>
<td>YYYY</td>
<td>!</td>
</tr>
</tbody>
</table>

**XX** = The Group Number to command from 01 to 64. This must be a two digit number; 0 must precede any single digit number.

**Y-YYYY** = Shade command from the following table:

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>FULLY OPEN</td>
</tr>
<tr>
<td>C</td>
<td>FULLY CLOSE</td>
</tr>
<tr>
<td>S</td>
<td>STOP</td>
</tr>
<tr>
<td>P</td>
<td>PREVIOUS STOP</td>
</tr>
<tr>
<td>N</td>
<td>NEXT STOP</td>
</tr>
<tr>
<td>CO</td>
<td>CLEAR OVERRIDE</td>
</tr>
<tr>
<td>0-100</td>
<td>MOVE TO %</td>
</tr>
<tr>
<td>TO</td>
<td>TILT OPEN</td>
</tr>
<tr>
<td>TC</td>
<td>TILT CLOSED</td>
</tr>
<tr>
<td>TP</td>
<td>TILT to PREVIOUS STOP</td>
</tr>
<tr>
<td>TN</td>
<td>TILT to NEXT STOP</td>
</tr>
<tr>
<td>T0-T100</td>
<td>TILT to %</td>
</tr>
</tbody>
</table>

**EXAMPLES:**

- **G01O!** Move motor group 1 fully open.
- **G0486!** Move motor group 4 to 86% closed.
- **G15S!** Stop motor group 15.

#### SERIAL SETTINGS

<table>
<thead>
<tr>
<th>BAUD RATE</th>
<th>9600</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA BITS</td>
<td>8</td>
</tr>
<tr>
<td>STOP BITS</td>
<td>1</td>
</tr>
<tr>
<td>POLARITY</td>
<td>NONE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PIN</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RS485 B (+)</td>
</tr>
<tr>
<td>2</td>
<td>RS485 A (-)</td>
</tr>
<tr>
<td>3</td>
<td>RS232 TX</td>
</tr>
<tr>
<td>4</td>
<td>RS232 GND</td>
</tr>
<tr>
<td>5</td>
<td>RS232 GND</td>
</tr>
<tr>
<td>6</td>
<td>RS232 RX</td>
</tr>
<tr>
<td>7</td>
<td>RS485 GND</td>
</tr>
<tr>
<td>8</td>
<td>RS485 GND</td>
</tr>
</tbody>
</table>
Section 3.3 – Serial Settings

To change the default serial port settings:

1. Select SETTINGS from the SERIAL menu.
2. Select the protocol that is being used, RS232 or RS485.
3. Use the menu to set the values for BAUD RATE, DATA BITS, STOP BIT and PARITY.

Section 3.4 – Learning Commands

The AV Gateway can learn commands to integrate more easily with other systems.

1. Select LEARN COMMANDS from the SERIAL menu.
2. Up to 16 commands can be learned. Select the command number from the list.
3. Select COMMAND to begin learning the new command.
   Once the display shows “Learning…”, send the command to learn through the RS232 or RS485 interface.
   Once learned it will show in the COMMAND field.
4. Select the ACTION to take when the command is received.
5. Select the GROUP number that the command should control.

Section 3.5 – Serial Monitor

1. Select SERIAL MONITOR from the SERIAL menu to monitor commands that are sent to the AVG.
   This can be helpful when troubleshooting communication issues.
Section 4 - Contact Closure Control

Section 4.1 - Setting Groups

1. Select CONTACT CLOSURE from MAIN MENU, then GROUPS.

2. There are 3 sets of contact closures on the AV Gateway. SELECT THE GROUP to configure from the list, then select CUSTOM to define a group of shades to control.

3. After initializing, one shade will begin to identify. SELECT ADD to assign that shade to the group, or, SKIP to move on to next shade. Once all shades have been added to the group SELECT DONE.

CLOSING THE UP CONTACT will move shade group open.

CLOSING THE DOWN CONTACT will move shade down.

CLOSING BOTH CONTACTS will stop the shade.
Section 4.2 - Setting Contact Profiles

1. Select PROFILE from the Contact Closure Menu.

2. The current profile is shown, use the Select and Arrow buttons to change the profile.

AVG Contact Profiles

PROFILE 1 - STANDARD

ALL GROUPS
Pulse U - Previous Stop
Hold U - Full Up
Pulse D - Next Stop
Hold D - Full Down
Close U & D - Stop
### PROFILE 2 - **VENETIAN BLINDS**

<table>
<thead>
<tr>
<th>Group 1 - Extend Only</th>
<th>Group 2 - Tilt Only</th>
<th>Group 3 - Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse U - Previous Stop</td>
<td>Pulse U - Previous Stop</td>
<td>See Profile 1</td>
</tr>
<tr>
<td>Hold U - Fully Retract</td>
<td>Pulse D - Next Stop</td>
<td></td>
</tr>
<tr>
<td>Pulse D - Next Stop</td>
<td>Hold U - Tilt Fully Open</td>
<td></td>
</tr>
<tr>
<td>Hold D - Fully Extend</td>
<td>Hold D - Tilt Fully Down</td>
<td></td>
</tr>
<tr>
<td>Hold U &amp; D - Stop</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PROFILE 3 - **TOGGLE**

**ALL GROUPS**

Pulse U or D - Stop if moving, otherwise move fully in the opposite direction of the last move  
*(Pulse from full up/full down will trigger full run in opposite direction)*
PROFILE 4 - NO PRESETS

Pulse U - Full Up
Hold U - Momentary Up (stop on release)
Pulse D - Full Down
Hold D - Momentary Down (stop on release)
Close U & D - Stop

PROFILE 5 - PRESETS

GROUP 1
(See Profile 4 above)

GROUP 2
Pulse U - Preset 1
Pulse D - Preset 2

GROUP 3
Pulse U - Preset 3
Pulse D - Preset 4

PROFILE 6 - KEY SWITCH

MAINTAINED MOVEMENTS
Close U - Full Up
Close D - Full Down
Open - Clear Override
Section 5 - **Low Voltage Control**

1. Select **LOW VOLTAGE IN** from **MAIN MENU**.

2. Select **GROUP**, then select **CUSTOM** to define a group of shades to control.

3. After initializing, one shade will begin to identify. **SELECT ADD** to assign that shade to the group, or, **SKIP** to move on to next shade. Once all shades have been added to the group **SELECT DONE**.

   Applying a 5-24VDC signal to the low voltage input terminal will move shade group closed.

   Once the signal is removed, shades will move open.

Section 6 - **IR Control** *(can be used with Part #121227 - IR Transmitter & Receiver)*

1. Select **IR INPUT** from **MAIN MENU**.

2. Select **GROUP**, then select **CUSTOM** to define a group of shades to control.

3. After initializing, one shade will begin to identify. **SELECT ADD** to assign that shade to the group, or, **SKIP** to move on to next shade. Once all shades have been added to the group **SELECT DONE**.

4. The group can now be controlled using the **UP, DOWN** and **STOP BUTTONS** on IR remote.

Section 7 - **Settings**

1. Select **SETTINGS** from the **MAIN MENU**.

2. Select **FACTORY RESET** and confirm to restore the original factory settings to the AV Gateway.
Section 8 - Wiring Diagram

- Connector to 3rd Party Network via RS232 to 120V Power Supply
- Shade Motor
- Data Network CAT5 or better
- RJ45 to RJ45 Connection
- M12 Connector
- NDC
- RJ45 to RJ45 Connection
- to 120V Power Supply
- Motorized FlexShade® A/C
Section 8 - Wiring Diagram

Connector to 3rd Party Network via RS232

120V Power Supply

Shade Motor

A\V Gateway

M12 Connector

Data Network CAT5 or better

RJ45 to RJ45 Connection

NDC

Connector to 3rd Party Network via RS232
Section 9 - Dimensions

4 7/8” (124mm)
3 ⅛” (83mm)
AV Gateway - Part# C156.269