GRAFIK Eye®

Installation and Operation Instructions
Read Before Installing
Please Leave for Occupant

GRX-AV
Interface Control
SELV (Class 2: USA)

GRAFIK Eye® GRX-AV
LUTRON®
COOPERSBURG, PA 18036
INTERFACE CONTROL
SELV(CLASS 2:USA)

DIP SWITCH SETTINGS (1-4)   0 = ON; 1 = OFF

1 2 3 4	ADDRESS	1 2 3 4	ADDRESS	1 2 3 4	ADDRESS	1 2 3 4	ADDRESS
0 0 0 0	1	0 1 0 0	5	1 0 0 0	9	1 1 0 0	13
0 0 0 1	2	0 1 0 1	6	1 0 0 1	10	1 1 0 1	14
0 0 1 0	3	0 1 1 0	7	1 0 1 0	11	1 1 1 0	15
0 0 1 1	4	0 1 1 1	8	1 0 1 1	12	1 1 1 1	16

DIP SWITCH SETTINGS (5-8)

TYPE	CONFIGURATION	DIP SETTING
4S CONTROL 7 ON 8 ON	SCENES 1-4, MAINTAIN OUTPUTS	5 ON 6 ON
	SCENES 5-8, MAINTAIN OUTPUTS	5 OFF 6 ON
	SCENES 9-12, MAINTAIN OUTPUTS	5 ON 6 OFF
	SCENES 13-16, MAINTAIN OUTPUTS	5 OFF 6 OFF
4S CONTROL 7 ON 8 OFF	SCENES 1-4, MOMENTARY OUTPUTS	5 ON 6 ON
	SCENES 5-8, MOMENTARY OUTPUTS	5 OFF 6 ON
	SCENES 9-12, MOMENTARY OUTPUTS	5 ON 6 OFF
	SCENES 13-16, MOMENTARY OUTPUTS	5 OFF 6 OFF
4Q CONTROL 7 OFF 8 OFF	SEQUENCE 1-4, MAINTAIN INPUTS	5 ON 6 ON
	SEQUENCE 1-4, MOMENTARY INPUTS	5 OFF 6 ON
	SEQUENCE 5-16, MAINTAIN INPUTS	6 ON 6 OFF
	SEQUENCE 5-16, MOMENTARY INPUTS	6 OFF 6 OFF
4PS CONTROL 7 OFF 8 ON	PARTITION STATUS, MOMENTARY INPUTS	5 ON 6 ON
	PARTITION STATUS, MAINTAINED INPUTS	5 OFF 6 ON
SPECIAL CONTROL 7 OFF 8 ON	OCCUPANCY SENSOR - SCENE 1 & OFF	5 ON 6 OFF
	OCCUPANCY SENSOR - OFF ONLY	5 OFF 6 OFF

ADDRESS
CONFIG.
TYPE
ON
OFF

SELV (CLASS 2:USA)

Unit Label

DIP Switches

Output Status LEDs

1 2 3
MUX LINK
INPUTS   C 1 2 3 4 5   1 2 3 4 5 C   OUTPUTS
Terminal Blocks

Program Switch

1 2 3 4
MUX LINK   PROGRAM SWITCH   C 1 2 3 4 5 INPUTS   1 2 3 4 5 OUTPUTS C
COM +V MUX MUX   COM   COM

Description

The GRX-AV Contact Interface accessory control allows customer supplied auxiliary equipment such as timeclocks, security systems, occupant sensors, etc. to both access and be controlled by the GRAFIK Eye Control Unit.

Features

The GRX-AV Contact Interface can be configured as one of the following four types:

1. **4S Scene Selection Control -**
   Provides for remote control of GRAFIK Eye 3000 or 4000 Series Control. It can be used to select any four scenes and turn the system and all corresponding lighting Off.
   Maintain Outputs: Allows the selection of up to 5 contact closures to other manufacturers A/V equipment.
   Momentary Outputs: Allows the selection of up to 5 preset positions of Serena shades or projector screens requiring momentary output closures.

2. **4Q Special Function Control:**
   Sequencing - Cycles the preset light levels from Scene 1 through Scene 4 (or 5 through 16) and back to Scene 1 (or 5) looping indefinitely and using the programmed fade times for each scene.
   Zone Lockout - Prevents modifications to set light levels on the GRAFIK Eye Control Unit. Only temporary changes can be made.

Scene Lockout - Prevents changing of the selected scene or preset levels on all GRAFIK Eye Control Unit(s) and Accessories.
Panic - Activates Scene 16 on assigned GRAFIK Eye Control Unit(s) and places them in Scene Lockout. Toggle of this closure will return controls to their status before Panic was activated.

3. **4PS Partition Control:** Allows independent (Partition Closed) or paralleled (Partition Open) operation of multiple GRAFIK Eye Control Units.

4. **OS Special Control:**
   OS1 - Occupancy Sensor Scene 1/Off - Maintained contact so occupancy sensor can turn ON assigned GRAFIK Eye Control Unit(s) while still allowing scene changes once room is entered. Note: Use 4S function if occupancy sensor provides a momentary closure.
   OS2 - Occupancy Sensor Off Only - Occupant must turn lights ON manually, while still allowing energy saving benefits.

Important Notes

1. Install in accordance with all applicable regulations.
2. Do not connect high voltage power to device. Improper wiring can result in personal injury or damage to the device or to other equipment.
3. GRAFIK Eye accessory controls may be connected to the GRAFIK Eye Control Unit using Class 2 wiring methods per the National Electrical Code. However, check with your local electrical inspector for the local code requirements and wiring practices in your area.
4. All A/V components are provided by others.
5. Inputs and outputs may be momentary or maintained closures.
6. Switch inputs must have:
   a. On-state saturation voltage less than 2.0Vdc.
   b. Off-state leakage current less than 10μA.
7. Customer supplied power supply must not exceed 30VDC (Class 2) output.
8. Customer provided output indicators must not exceed 200mA at 30VDC (Class 2).
9. Output indicator on state = 2.0VDC at 200mA.
10. Lutron recommends that separate commons be used for "MUX LINK", "INPUTS", and "OUTPUTS".
11. GRX-AV requires a minimum pulse time of 40ms for an input switch closure.
12. GRX-AV provides a 1 second output momentary closure.

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Installation

1. **Mount the GRX-AV Interface Control.** Mount the GRX-AV using a 4"x4" junction box or directly on a wall as shown in the Mounting Diagram. If the unit is not mounted to a junction box, ensure proper grounding of the metal casing by connecting a ground wire to the ground screw. Remove front enclosure cover to expose terminal blocks, DIP switches, and status LEDs.
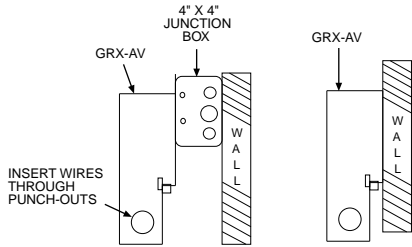
Mounting Diagram

2. **Strip 3/8" (10mm) of insulation from No. 18 gauge (1.0mm²) wires.** Each terminal will accept two such wires.

3/8"
(10mm)
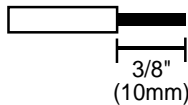
3. **Connect wiring as shown in the Wiring Diagram below.**

4. **Address the GRX-AV.** Up to 16 Accessory Controls can be configured in a system. Each Accessory Control in a system MUST be assigned a unique address. Set DIP switches 1-4 of the GRX-AV to one of the following for the specified address.

Address Chart

Wiring Diagram

Rear View of GRAFIK Eye Control Unit
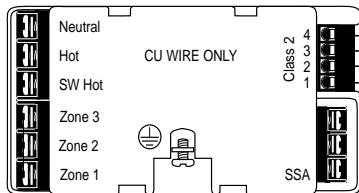
GRAFIK Eye 3000 Series shown. For GRAFIK Eye 4000 Series wiring, refer to the GRAFIK Eye 4000 Installers Guide.

Customer Supplied Equipment
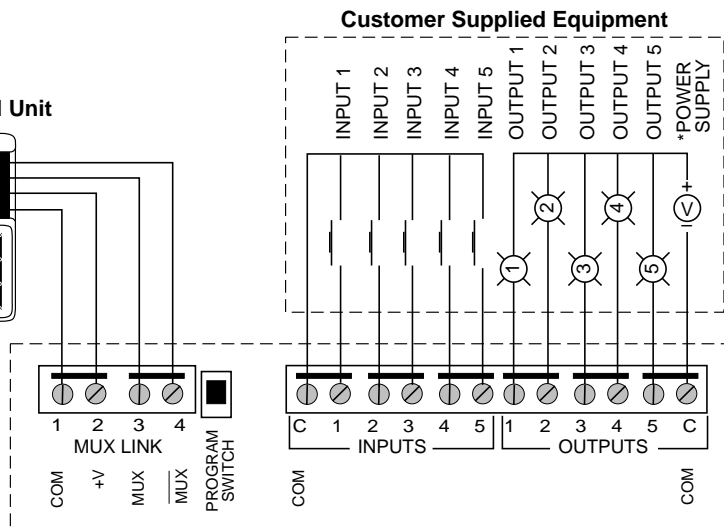
* Power supply to be supplied by customer (30VDC Max.).

Note: Inputs may be Maintained or Momentary depending on control type selection (Momentary shown).

5. Configure the GRX-AV. Set DIP switches 5-8 on the front of the GRX-AV Interface Control according to the function desired and type of contact closure provided. Refer to the charts below.

Function Chart

Control Type	4S	4S	4S	4S	4S	4S	4S	4S
Input								
1	Scene 1	Scene 5	Scene 9	Scene 13	Scene 1	Scene 5	Scene 9	Scene 13
2	Scene 2	Scene 6	Scene 10	Scene 14	Scene 2	Scene 6	Scene 10	Scene 14
3	Scene 3	Scene 7	Scene 11	Scene 15	Scene 3	Scene 7	Scene 11	Scene 15
4	Scene 4	Scene 8	Scene 12	Scene 16	Scene 4	Scene 8	Scene 12	Scene 16
5	Off	Off	Off	Off	Off	Off	Off	Off
	Maintained Outputs				Momentary Outputs			
	Maintained or Momentary Inputs				Maintained or Momentary Inputs			

Control Type	4Q	4Q	4Q	4Q	4PS	4PS	OS1	OS2
Input								
1	Sequence 1-4	Sequence 5-16	Sequence 1-4	Sequence 5-16	Partition 1	Partition 1	Occ. Sen. 1	Occ. Sen. 1
2	Zone Lockout				Partition 2	Partition 2	Occ. Sen. 2	Occ. Sen. 2
3	Scene Lockout				Partition 3	Partition 3	Occ. Sen. 3	Occ. Sen. 3
4	Panic				Partition 4	Partition 4	Occ. Sen. 4	Occ. Sen. 4
5					Partition 5	Partition 5	Occ. Sen. 5	Occ. Sen. 5
	Maintained Outputs				Maintained Outputs		Maintained Outputs	
	Momentary Inputs		Maintained Inputs		Momentary Input	Maintained Input	Maintained Input	Maintained Input

Programming

Note: All GRAFIK Eye Accessory Controls must be assigned a unique address. See the "Addressing Accessories" section on page 2.

1. **Put the GRX-AV Control in "Talk".** Press and hold the program switch for 3-5 seconds until:
   • The first Output Status LED blinks or,
   • The first four Output Status LEDs begin to cycle.

2. **Identify which GRAFIK Eye Control Unit(s) should listen to this GRX-AV.** Press and hold the GRAFIK Eye Control Unit's top button until the four LEDs begin blinking in unison. This shows that the GRAFIK Eye Control is "Listening" to the GRX-AV. Repeat for each GRAFIK Eye Control Unit.*

   4S or 4Q functions - Go on to Step 3.

   4PS or OS functions - Each input must be programmed separately.
   1. Press the program switch to cycle through each input. These represent a partition switch, occupancy sensor, etc. The corresponding Output Status LED will blink.

2. Program GRAFIK Eye Control Units to communicate with the GRX-AV by using the above procedure.
3. When the fifth input is programmed, the GRX-AV will cycle back to the first input.

3. **Take the GRX-AV out of "Talk".** Press and hold the program switch for 3-5 seconds until the first Output Status LEDs STOP cycling or blinking.

4. **Replace front enclosure cover using the screws provided.**

* To make a GRAFIK Eye Main Control Unit stop "Listening" to a GRX-AV, put the GRX-AV in "Talk" mode. Press and hold the bottom button (OFF) on the GRAFIK Eye Control Unit until the LEDs stop blinking. Take the GRX-AV out of "Talk" mode.

Technical and Sales Assistance

If you need assistance, call the toll-free *Lutron Technical Assistance Hotline.* Please provide exact model number when calling.
(800) 523-9466 (U.S.A., Canada and the Caribbean)

Other countries call:
Tel: (610) 282-3800;   International: 1 610 282-3800
Fax: (610) 282-3090;   International: 1 610 282-1243
Visit our Web site at www.lutron.com

Warranty