

## GRAFIK Eye 3000 Series Control Unit

Cover (shown open)



### Description

- Provides pushbutton recall of four preset lighting scenes, plus Off.
- Allows setup of lighting scenes using buttons on the Control Unit.
- Controls many light source types directly, and others using power interfaces.
- Provides lockout options to prevent accidental changes.
- Includes built-in infrared receiver for operation with an optional remote control.

### Models available to:

- Accept 120V, 220-240V (non-CE), 230V (CE) and 100V input power.
- Control two to six zones of lighting.

### GRX-3100 Control Units

Provide setup using buttons on the Control Unit.

### GRX-3500 Control Units

Provide optional setup using a PC, including setting lighting levels in 1% increments.

|             |                |
|-------------|----------------|
| Job Name:   | Model Numbers: |
| Job Number: |                |

## Specifications

### Input Power

- 120V, 220-240V (non-CE), 230V (CE) or 100V, 50/60Hz.
- Lightning Strike Protection: Meets ANSI/IEEE standard 62.41-1980. Can withstand voltage surges of up to 6000V and current surges of up to 3000A.

### Lighting Sources/Load Types

Controls the following lighting sources with a smooth, continuous Square Law dimming curve or on a full conduction non-dim basis:

- Incandescent, Tungsten, Magnetic Low Voltage Transformer
- Lutron Tu-Wire® Electronic Fluorescent Dimming Ballast
- Neon and Cold Cathode

Controls the following lighting sources with a smooth continuous Square Law dimming curve through separate power interfaces:

- Electronic Low Voltage Transformer
- Lutron Electronic Fluorescent Dimming Ballast

### Preset Control

- 4 preset lighting scenes and off are accessible from the Control Unit front panel.
- 12 additional scenes are stored in the Control Unit. These scenes are accessible via Wallstations and/or Control Interfaces.
- Light levels fade smoothly between scenes. Fade time can be set differently for each scene, between 0-59 sec. or 1-60 min. Fade time from Off is capped at 5 sec.

### Key Design Features

- Meets IEC 801-2. Tested to withstand 15kV electrostatic discharge without damage or memory loss.
- Compensates in real time for incoming line voltage variations: No visible flicker with +/-2% change in RMS voltage/cycle and +/-2% Hz change in frequency/second.
- 10-year power failure memory automatically restores lighting to levels prior to power interruption.
- Faceplate snaps on with no visible means of attachment.

### System Communications and Capacities

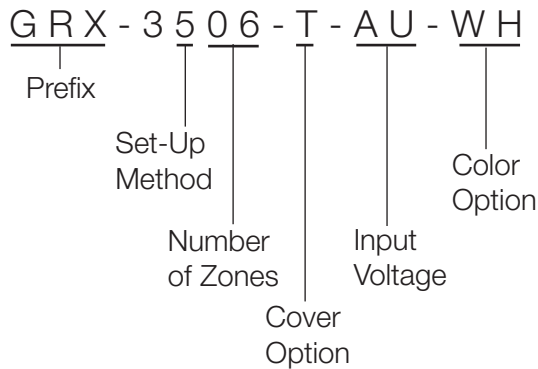
- Low-voltage type Class 2 (PELV) wiring connects Control Units, Wallstations, and Control Interfaces:
- Up to 8 Control Units may be linked to control up to 48 zones.
- Up to 16 total Wallstations and Control Interfaces may be added for a total of 24 control points.

### Environment

- 32-104°F (0-40°C). Relative humidity less than 90% non-condensing.

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |

## How to Build a Model Number



**Prefix:**

**GRX** for Grafik Eye 3000 Series Control Units

**Set-Up Method:**

**1** for standard via front panel  
**5** for PC setup

**Number of Zones:**

2, 3, 4, or 6

**Cover Option:**

**A** for Opaque  
**T** for Translucent Black

**Input Voltage**

\_\_ (no code) for 120V Single Feed  
**AU** for 220-240V (non-CE)  
**CE** for 230V (CE)  
**JA** for 100V

**Color Option:**

See Color Options list

**Cover Options**

Opaque A  
 Cover and Base will match.  
 Translucent Black T  
 Black Cover and choice of base color.

Also available:

- Custom controls
- Color matching
- Engraving

These options ship in 4 to 6 weeks

**Color Options**

**Architectural Matte Finishes**

Standard – Ship in 48 hours

Cover Option: A or T

White WH  
 Ivory IV  
 Beige BE  
 Gray GR  
 Brown BR  
 Black BL

**Designer Gloss Finishes**

Ship in 4 to 6 weeks

Cover Option: A only

White GWH  
 Light Almond GLA  
 Almond GAL  
 Ivory GIV

**Satin Color Matte Finishes**

Cover Option: A or T

Hot HT  
 Ochre OC  
 Terracotta TC  
 Desert Stone DS  
 Stone ST  
 Limestone LS  
 Blue Mist BT  
 Midnight MN  
 Taupe TP  
 Biscuit BI  
 Eggshell ES  
 Snow SW

**Architectural Metal Finishes**

Cover Option: T only

Bright Brass BB  
 Bright Chrome BC  
 Satin Brass SB  
 Satin Chrome SC  
 Satin Nickel SN  
 Antique Brass QB  
 Antique Bronze QZ  
 Bright Nickel BN

**Anodized Aluminum Finishes**

Cover Option: T only

Clear CLA  
 Black BLA  
 Brass BRA  
 Bronze BZA

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |

## Model Numbers

### 120V Input Power

| Number of Zones | Standard Setup | PC Setup      | Unit Capacity (Watts/VA) | Zone Capacity (Watts/VA) |
|-----------------|----------------|---------------|--------------------------|--------------------------|
| 2               | GRX-3102-_-_-  | GRX-3502-_-_- | 1200                     | 800                      |
| 3               | GRX-3103-_-_-  | GRX-3503-_-_- | 1500                     | 800                      |
| 4               | GRX-3104-_-_-  | GRX-3504-_-_- | 2000                     | 800                      |
| 6               | GRX-3106-_-_-  | GRX-3506-_-_- | 2000                     | 800                      |

### 220-240V (non-CE) Input Power

| Number of Zones | Standard Setup   | PC Setup         | Unit Capacity (Watts/VA) | Zone Capacity (Watts/VA) |
|-----------------|------------------|------------------|--------------------------|--------------------------|
| 2               | GRX-3102-_-AU-__ | GRX-3502-_-AU-__ | 1600                     | 1200                     |
| 3               | GRX-3103-_-AU-__ | GRX-3503-_-AU-__ | 2400                     | 1200                     |
| 4               | GRX-3104-_-AU-__ | GRX-3504-_-AU-__ | 3000                     | 1200                     |
| 6               | GRX-3106-_-AU-__ | GRX-3506-_-AU-__ | 3000                     | 1200                     |

### 230V (CE) Input Power

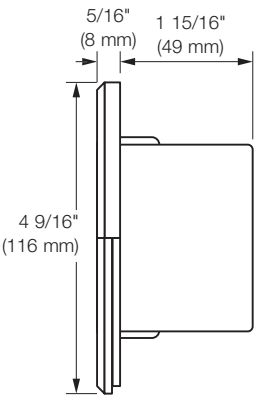
| Number of Zones | Standard Setup   | PC Setup         | Unit Capacity (Watts/VA) | Zone Capacity (Watts/VA) |
|-----------------|------------------|------------------|--------------------------|--------------------------|
| 2               | GRX-3102-_-CE-__ | GRX-3502-_-CE-__ | 1600                     | 800                      |
| 3               | GRX-3103-_-CE-__ | GRX-3503-_-CE-__ | 2300                     | 800                      |
| 4               | GRX-3104-_-CE-__ | GRX-3504-_-CE-__ | 2300                     | 800                      |
| 6               | GRX-3106-_-CE-__ | GRX-3506-_-CE-__ | 2300                     | 800                      |

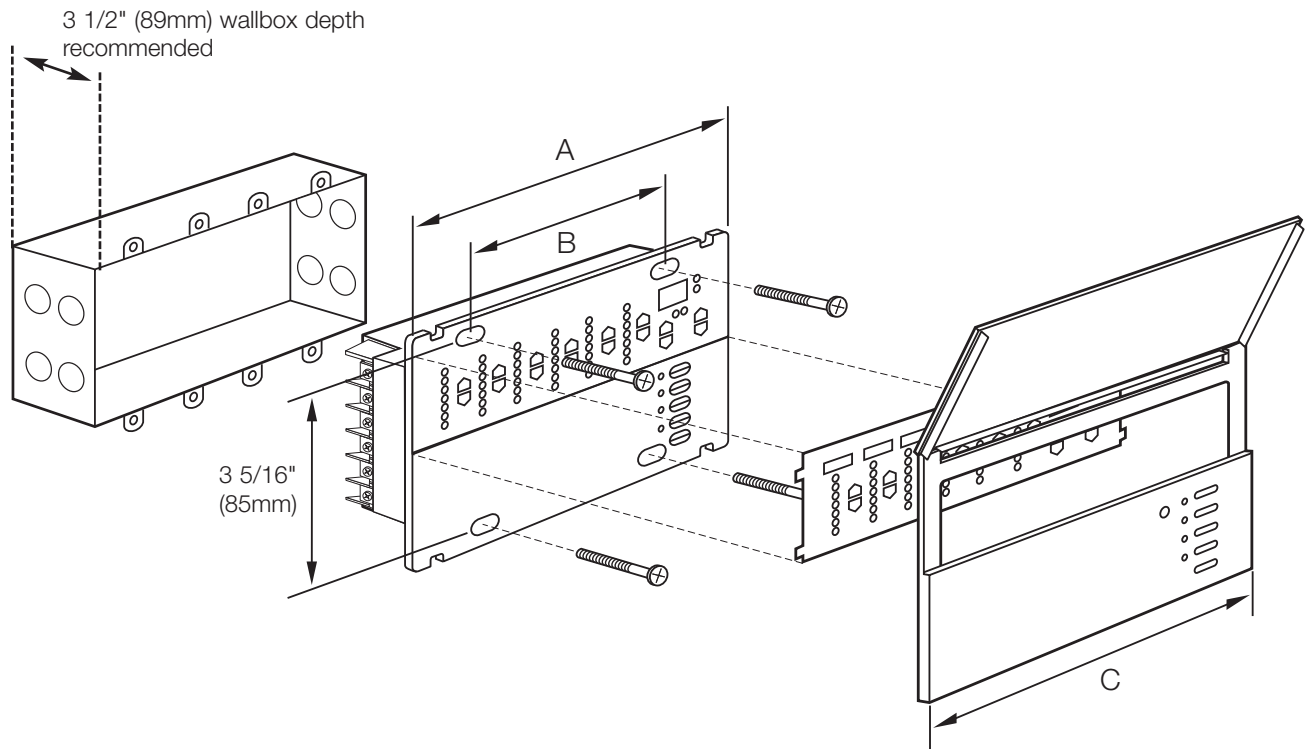
### 100V Input Power

| Number of Zones | Standard Setup   | PC Setup         | Unit Capacity (Watts/VA) | Zone Capacity (Watts/VA) |
|-----------------|------------------|------------------|--------------------------|--------------------------|
| 2               | GRX-3102-_-JA-__ | GRX-3502-_-JA-__ | 1000                     | 600                      |
| 3               | GRX-3103-_-JA-__ | GRX-3503-_-JA-__ | 1250                     | 600                      |
| 4               | GRX-3104-_-JA-__ | GRX-3504-_-JA-__ | 1600                     | 600                      |
| 6               | GRX-3106-_-JA-__ | GRX-3506-_-JA-__ | 1600                     | 600                      |

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |

### Dimensions and Mounting - 230V (CE) Only

| Model                                 | Side View   | A                  | B                  | C                | Wallbox <sup>1</sup><br>U.S. Size | Depth          |
|---------------------------------------|---|--------------------|--------------------|------------------|-----------------------------------|----------------|
| 2-Zone:<br>GRX-3102-CE<br>GRX-3502-CE |  | 8 5/16"<br>(208mm) | 5 7/16"<br>(138mm) | 8.94"<br>(227mm) | 4 Gang                            | 3.5"<br>(89mm) |
| 3-Zone:<br>GRX-3103-CE<br>GRX-3503-CE |   | 8 5/16"<br>(208mm) | 5 7/16"<br>(138mm) | 8.94"<br>(227mm) | 4 Gang                            | 3.5"<br>(89mm) |
| 4-Zone:<br>GRX-3104-CE<br>GRX-3504-CE |   | 8 5/16"<br>(208mm) | 5 7/16"<br>(138mm) | 8.94"<br>(227mm) | 4 Gang                            | 3.5"<br>(89mm) |
| 6-Zone:<br>GRX-3106-CE<br>GRX-3506-CE |   | 8 5/16"<br>(208mm) | 5 7/16"<br>(138mm) | 8.94"<br>(227mm) | 4 Gang                            | 3.5"<br>(89mm) |

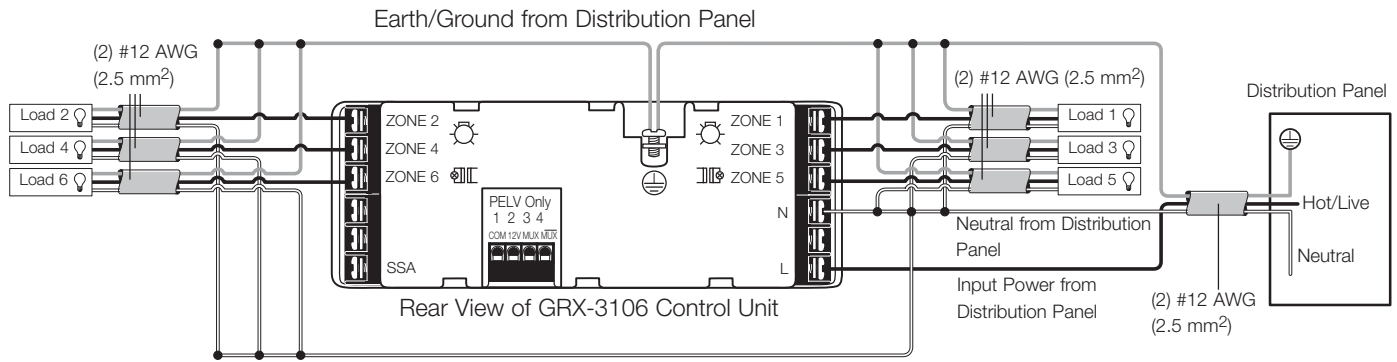


<sup>1</sup> Can be ordered from Lutron.

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |

### Mains Voltage Wiring - 230V CE Models

- Pull power wiring from distribution panel and to light fixtures.
- Each line voltage terminal can accept up to two #12 AWG (2.5mm<sup>2</sup>) wires.
- For phase-to-phase wiring, connect one phase to Hot/Live and the other phase to Neutral. When wired phase-to-phase, **there is no air gap** when the Control Unit is Off. The MCB(s) **must** be turned off when servicing the Control Unit or associated loads.



Consult Lutron for:

- Non-dim relay wiring.
- Load side emergency transfer wiring.

### Low-Voltage Class 2 (PELV) Wiring

- System communications use low-voltage Class 2 (PELV) wiring.
- Wiring must be daisy-chained.
- Wiring must run separately from line (mains) voltage.

Class 2 (PELV) wiring link requires:

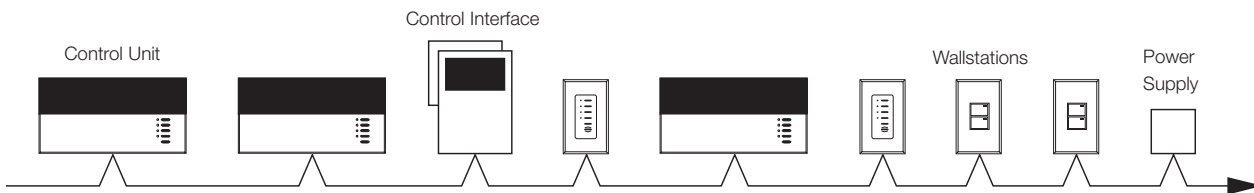
Two #12 AWG (2.5mm<sup>2</sup>) conductors for control power.

One twisted, shielded pair of #18 AWG (0.625mm<sup>2</sup>) for data link.

Total length of Control Link may be up to 2,000 ft. (610m).

Approved low-voltage cable is available from Lutron<sup>1</sup>, Belden, and Liberty.

These are approved with #22 AWG data link wires.



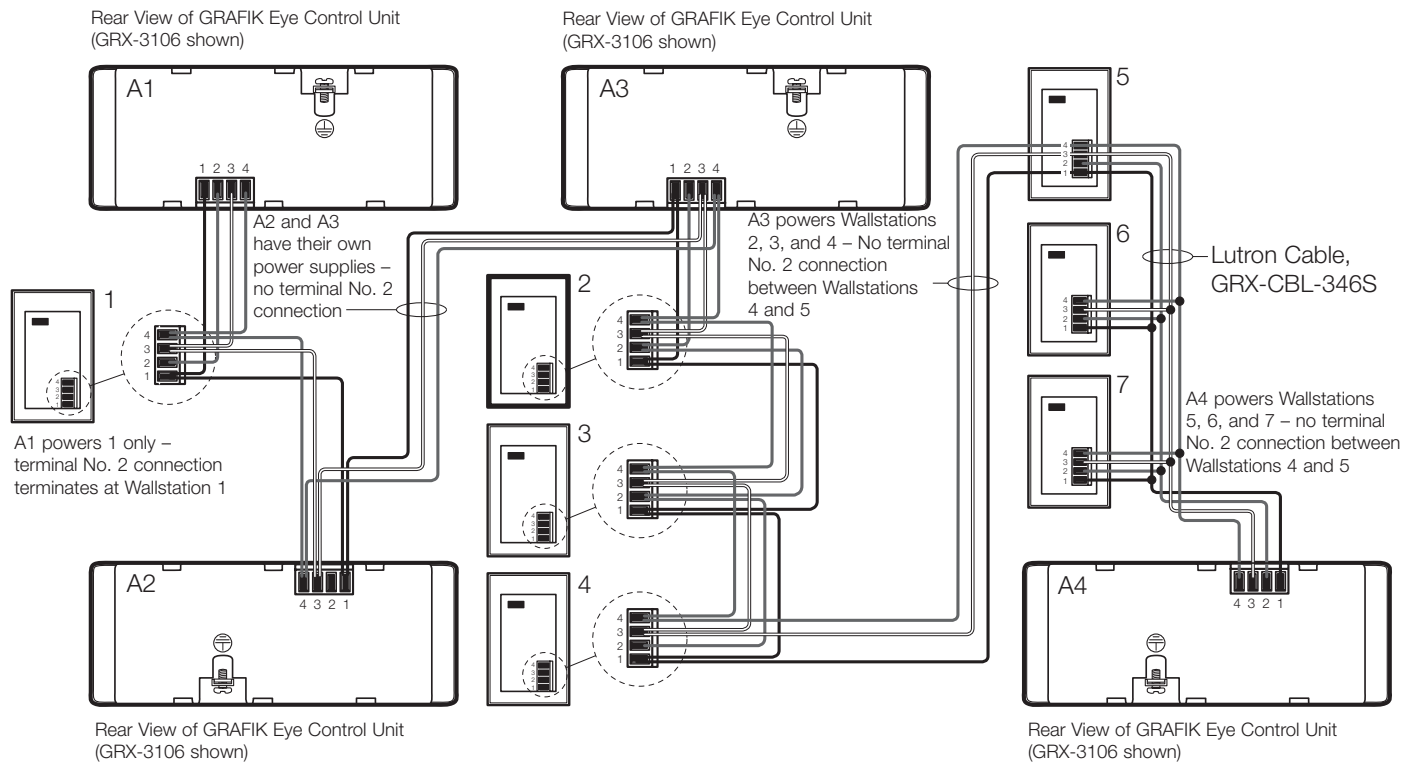
External 12VDC Power Supply is required to power more than three Wallstations and/or Control Interfaces from a single Control Unit.

<sup>1</sup> GRX-CBL-346S Class 2 (PELV) wiring cable is available from Lutron and contains:  
 Two #12 AWG (2.5mm<sup>2</sup>) conductors for control power.  
 One twisted, shielded pair of #22 AWG (0.625mm<sup>2</sup>) for data link.

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |

## Class 2 (PELV) Terminal Connections

- Each Class 2 (PELV) terminal accepts up to two #18 AWG (1.0mm<sup>2</sup>) wires.
- Daisy chain the terminal 1, 3, and 4 connections to all Control Units, Wallstations, and Control Interfaces.
- Each Control Unit has its own power supply. Terminate the terminal 2 connection (12VDC power) so that each Control Unit supplies power to a maximum of three Wallstations. Each Wallstation should receive power from only one Control Unit.
- Total length of Class 2 (PELV) wiring may be up to 2,000 ft. (600m).
- Make all connections in the Control Unit's wallbox. Remote connections (T-taps) must be in a switchbox or junction box with a maximum wire length of 8 ft. (2.5m) from the link to the connected unit.
- Do not allow Class 2 (PELV) wires to contact line/main wires.



**Note:**

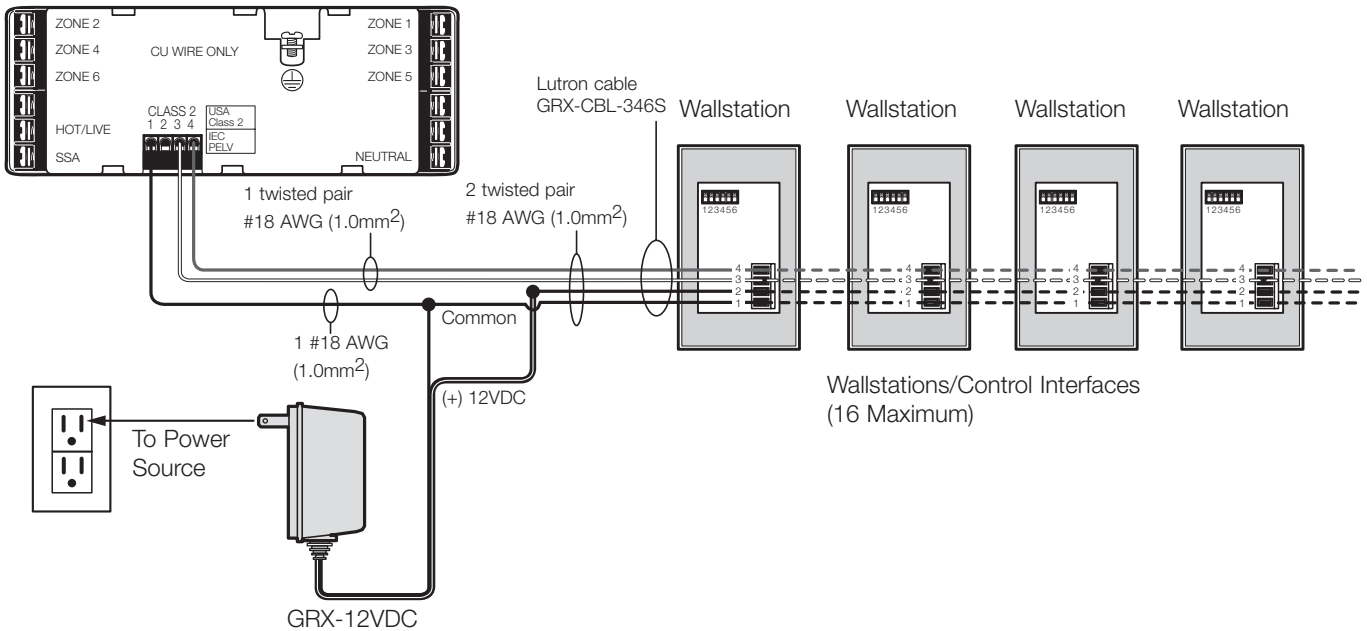
- Up to 8 GRAFIK Eye 3000 Series Control Units and 16 Wallstations/Control Interfaces may be daisy-chained together in one system.
- Class 2/PELV cable is available from Lutron - order GRX-CBL-346S.

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |

## GRX-12VDC Power Supply Wiring

External 12VDC Power Supply is required to power more than three Wallstations and/or Control Interfaces from a single Control Unit.

Rear View of GRAFIK Eye Control Unit (GRX-3106 shown)



Note:  
Do not connect terminal No. 2 between GRAFIK Eye 3000 Series Control Unit and GRX-12VDC Power Supply

|                    |                       |
|--------------------|-----------------------|
| <b>Job Name:</b>   | <b>Model Numbers:</b> |
| <b>Job Number:</b> |                       |