GRAFIK Eye® Control Interfaces

Control Interface Features
- Coordinate GRAFIK Eye 3000 Series control units with other systems:
  - Contact Closures
  - Serial Links
  - Infrared
- Automate lighting control with the astronomical timeclock
- Provide energy savings by using a daylight control and photosensor
  or by connecting an occupancy sensor to the system
- Programming tools simplify system installation
- Coordinate lighting and controllable window treatments
- Simple on/off entrance controls use standard 2-way wiring

GRAFIK Eye 3000 SYSTEM MAP (SHOWN)
- Use the map at right to identify system component being reviewed in each section
- For overall wiring information, see pg. 24 and 34

 SOURCES
- Power Boosters/Interfaces
- Dimming Ballasts
- GRAFIK Eye Control Units
- Wallstations
- Control Interfaces
- Window Treatment Controllers and Wallstations
- Control Station Devices

SPECIFICATIONS
- Wallstation and Control Interface Maximums:
  - Per System: 16 (Class 2/PELV) (includes Window Treatment Wallstations)
  - Three from each GRAFIK Eye 3000 Control Unit without external power supply;
    for Lutron Power Supply, GRX-12VDC, see pg. 64 (Does not apply to GRAFIK Eye 4000)
- Wiring Specification & Maximums:
  - GRAFIK Eye 3000: (2) twisted pair #18 AWG (1.0mm²)
  - GRAFIK Eye 4000: (2) #12 AWG, (2.5mm²), (1) twisted, shielded pair #18 AWG (1.0mm²)
    plus (1) #18 AWG (1.0mm²)
  - Distance: 2,000’ (610m); for other cable distances, see GRAFIK Eye Application Notes
    available at www.lutron.com
- Installation: Daisy chain (no home-run wiring)
- Power: 12VDC (From GRAFIK Eye 3000 Series Control Unit or GRX-12VDC); 24VAC
  (From Power Panels for GRAFIK Eye 4000 Series)
- Configuration:
  - Integral DIP switches determine function and can be configured in the field
## Features/Functions

<table>
<thead>
<tr>
<th></th>
<th>Contact Closures</th>
<th>Serial Links</th>
<th>Infrared</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preset Scene Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select Scene</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Scene Status Feedback</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Security/Life Safety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiate “Panic-on” mode – Selects Scene 16 and locks control unit to prevent manual changes and returns to previous scene when closure is removed</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occupant Response</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs turn selected control units on to Scene 1 or off based on occupancy</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sequencing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiate a sequence loop</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Lockout</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone Lock – Prevent intensity changes on selected control unit(s)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Scene Lock – Disables scene buttons on selected control unit(s) preventing any manual scene changes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Partition Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scheduling</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astronomical Timeclock – Four schedules with 60 events per schedule</td>
<td></td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>External Timeclock – Scene selection through contact closure inputs</td>
<td></td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td><strong>Zone Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent zone raise/lower</td>
<td></td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Zone on/off status</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Button Feedback</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td><strong>Window Treatments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open/Close</td>
<td></td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Open/Close/Stop</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td><strong>Programming Utilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liaison® – Windows®-based programming tool for GRAFIK Eye 3500 Series</td>
<td></td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>
## CONTACT CLOSURES INTERFACE

**GRX-AV**

- Provides two-way interface between GRAFIK Eye control units and contact closure devices
- Product functions (selected in the field):
  - Recall four scenes (1-4, 5-8, 9-12, or 13-16) plus off
  - Enable/disable panic, scene lockout or zone lockout modes
  - Turn lights on (Scene 1) or off based on occupancy (control up to five individual rooms), see occupancy sensors, pg. 63
  - Initiate scene (1-4 or 5-16) sequence loop
  - Inputs determine which GRAFIK Eye control unit(s) operate independently or in combination to reflect partition status for up to five moveable walls (six rooms)
- Five inputs and five outputs
- Inputs and outputs can be momentary or maintained
- Output requires external relay and power supply (30VDC maximum) by others for contact closure
- Inputs specification:
  - Input must be dry contact closure or open collector (NPN)
  - On-state saturation voltage less than 2.0VDC
  - Off-state leakage current less than 10 µA
  - Open circuit voltage 36V maximum
  - Short circuit current 4.0 mA maximum
- Outputs specification:
  - 38V maximum
  - 200 mA maximum
  - Open collector (NPN) output
  - On-state saturation voltage 1.0V maximum
  - Off-state leakage current 0.1 µA maximum

### Dimensions

- **GRX-AV**
  - W: 5.00" (127mm)
  - H: 7.75" (197mm)
  - D: 2.50" (64mm)
  - Mounts on a 4.00"-square utility box

### Ordering Example

**GRX-AV**

Ships in 48 hrs.

---

## CONTACT CLOSURE OUTPUT

**GRX-CCO-8**

- Provides eight dry contact closure outputs
- For integration to 3rd party controllable window treatments or A/V equipment
- May be set to normally open (NO) or normally closed (NC)
- May be set to momentary or maintained contacts
- Depending on configuration the outputs indicate:
  - Current scene (1-8, 9-16)
  - Zone on/off for eight zones
  - Open/close window treatments (4 shades)
  - Open/close/stop window treatments (2 shades)
- If the GRX-CCO-8 is to control window treatments, use GRAFIK Eye CPN 1623 models
- Output ratings: 0-30V, 10A and 30-42V, 0.5A

### Dimensions

- **GRX-CCO-8**
  - W: 5.75" (146mm)
  - H: 10.75" (273mm)
  - D: 2.00" (50mm)
  - Mounts on a 4.00"-square utility box

---

**Footnotes, pg. 58**

1. Class 2/PELV control wiring.
2. Counts as one of 16 maximum Control Station Devices.
<table>
<thead>
<tr>
<th>Product</th>
<th>Model</th>
<th>Ordering Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASTRONOMICAL TIMECLOCK AND PROGRAMMER INTERFACE</strong></td>
<td>GRX-PRG</td>
<td></td>
</tr>
<tr>
<td><strong>INFRARED INTERFACE</strong></td>
<td>GRX-IRI</td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions**

- **RS-232 INTERFACE**
  - W: 5.00" (127mm)
  - H: 7.75" (197mm)
  - D: 2.50" (64mm)
  - Mounts on a 4.00"-square utility box

- **ASTRONOMICAL TIMECLOCK AND PROGRAMMER INTERFACE**
  - W: 5.00" (127mm)
  - H: 7.75" (197mm)
  - D: 2.50" (64mm)
  - Mounts on a 4.00"-square utility box

- **INFRARED INTERFACE**
  - W: 1.75" (45mm)
  - H: 4.10" (105mm)
  - D: 0.90" (23mm)

---

**RS-232 INTERFACE**

- Integrates GRAFIK Eye control units with user-supplied PC or A/V equipment (touchscreen) using RS-232 serial communication
- Enables control of scene selection, scene lock, sequencing, zone lock, zone raise/lower
- Can provide status monitoring through button feedback and scene-status updates
- Must be located within 50' (15m) of RS-232 source

**ASTRONOMICAL TIMECLOCK AND PROGRAMMER INTERFACE**

- Includes all features of GRX-RS232
- Built-in astronomical timeclock features four schedules with 60 events per schedule
- Programmed via PC (not included) using Lutron Liaison™ software (included, see below)
- Provides access to advanced user-programmable features when used with GRX-3500 control units such as programming scenes and system communications
- Must be located within 50' (15m) of RS-232 source
- Only one GRX-PRG per system

**INFRARED INTERFACE**

- Integrates GRAFIK Eye control unit(s) with user-supplied infrared transmitter
- Enables control of scene selection and zone raise/lower
- Recalls preset light levels from Wireless Remote Control (GRX-IT-WH or GRX-8IT-WH, ordered separately, see pg. 55)

---

**Footnote, pg. 59**

1 Counts as one of 16 maximum Control Station Devices.
INFRARED PARTITION SENSOR

- Infrared sensor provides contact closure based on status of sensor
- Can be used with GRX-AV (GRAFIK Eye 3000/4000 Series), pg. 58 or OMX-AV (Centralized Lighting Control System), pg. 124 for partitioning; GRX-AV or OMX-AV ordered separately
- Includes transmitter and receiver; (2 units as shown)
- Requires GRX-12VDC for power, pg. 64
- Transmitter and receiver are white
- Fits in standard single gang backbox, mounted front side down, on either side of partition wall, near ceiling surface
- Consult factory for additional details when being used with Switch Input Control P/N—NTGRX-SI4S-IR, pg. 48

Ordering Example

SG-4PS-CF-WH
For choices see: www.lutron.com/seetouch
add color/finish suffix to model #

Infrared Partition Sensor
Ships in 1 week.

Partition Status Wallstations
Ships in 4-6 weeks.
- seeTouch color offering, pg. 43.
- Architectural color offering, pg. 48.

Customization
Ships in 4-6 weeks.
- See pg. 14 for engraving schedules.

Locking Covers
- See pg. 64 for more information.

PARTITION STATUS WALLSTATIONS

seeTouch... SG-4PS-CF-3, 4_ Architectural-style NTGRX-4PS-CF-4_

- Provides four buttons to determine which GRAFIK Eye Control Unit(s) operate independently or in combination to reflect partition status for up to four movable walls
- Wallplate custom-engraved to match your floorplan
- Partition status wallstations are available with control for 2-12 movable walls, contact Lutron customer service for more information

For Example:
This button… Toggles the status of… To combine Control Units:
Button 1 Wall A 1 and 2
Button 2 Wall B 2 and 3
Button 3 Wall C 3 and 4
Button 4 Wall D 4 and 5

Dimensions

W: 6.32” (161mm) H: 4.56” (116mm) D: 1.13” (29mm)
Wallbox Size: single-gang

Footnotes, pg. 60
1 Depth includes wallplate and backbox. Wallplate depth is 0.31” (8mm).
2 Depth includes wallplate and backbox. Wallplate depth is 0.35” (9mm).
3 Insert version available for multigang installations. For insert version use I in place of last N in model number. See pg. 136 for more information.
4 Counts as one of 16 maximum Control Station Devices.
DMX512 INTERFACE

- Converts GRAFIK Eye Control Unit intensities to DMX512 Output
- Use to control:
  - Fiber optic lighting
  - LED-based lamps
  - Strobe lights
  - Fog machines
  - Moving fixtures
  - Animated characters
- DMX—send (output DMX intensities) only

MULTI-CHANNEL THEATRICAL CONSOLE

12 Channel 
24 Channel

- Two-scene preset mode with 12 or 24 channels
- Dipless crossfade between manual scenes
- Preset scenes may be “piled on” in any combination
- Preview mode allows cues to be checked
- Preset memories: 48 or 96
- DMX Output: 5 Pin XLR
- Analog Output: (2 each) 8 Pin C/J Male or (1 each) 27 Pin C/J Male
- Other models available, contact Lutron

2Link. POWER PANEL OPTION

- The 2Link Power Panel option provides two distinct control links inside each Power Panel.
- Each link — Link A and Link B — is capable of operating on any one of these systems – Lutron’s GRAFIK Eye® 4000, Lutron’s Centralized Lighting Control System, or USITT DMX512 protocol.
- Each system or protocol is unique, but the Power Panel is designed to automatically detect which one is present and operate accordingly.
- When ordering the appropriate panel, ask for the 2Link option.

THEATRICAL RECEPTACLES

- Receptacle provides standard pinout for DMX512 theatrical protocol
- Class 2/PELV device; barriers must be provided when line-voltage and Class 2 controls are ganged together in the same wallbox
- DMX cable available from Lutron P/N GRX-CBL-DMX
- See pg. 130 for colors/finishes

Stageboard Receptacle
- Five-pin XLR-style male jack for connection to a theatrical stage board

Fixture Equipment Receptacle
- Five-pin XLR-style female jack for connecting LUT-DMX to a theatrical fixture equipment

Footnotes, pg. 61
1 Depth includes wallplate and backbox. Wallplate depth is 0.35” (9mm).
2 Class 2/PELV control wiring.
**GRAFIK Eye® Control Interfaces**

**DAYLIGHTING**

- **Automatically selects preset scenes in response to ambient daylight**
- **Enforce option assures Photosensor overrides manual control for energy savings**
- **Use up to three Lutron Photosensors (MW-PS-WH) in parallel or one 0-10V Photosensor by others**
- **NOTE:** Photosensors ordered separately (see below)
- **Class 2/PELV control wiring**
- **Counts as one out of 16 maximum Wallstations/Control Interfaces**

**Photosensors:**
- The notch on the Photosensor defines the viewing direction
- Place Photosensor so its viewing area does not extend out of the window
- Do not position the Photosensor in the well of a skylight or above indirect fixtures
- Ensure the view of the Photosensor is not obstructed

**PHOTOSENSOR LOCATION FOR AVERAGE SIZE AREA**

**PHOTOSENSOR LOCATION FOR NARROW AREAS**

**BASE COLORS**
- **Matte Finishes**
  - Standard, ships in 48 hrs.
  - Matte Cover Options: A or T
  - See pg. 10 for complete color offering and suffixes.

**Metal Finishes**
- Ships in 4-6 weeks.
  - Metal Cover Option: T only
  - See pg. 10 for complete color offering and suffixes.

**Satin Finishes**
- Ships in 4-6 weeks.
  - Satin Cover Option: A or T
  - See pg. 10 for complete color offering and suffixes.

**Customization**
- Ships in 4-6 weeks.
  - See pg. 12 for multigang wallplates, color matching, engraving/silk screening, and custom controls.
  - See pg. 143 for engraving schedules.

**Locking Covers**
- See pg. 64 for more information.

**microPS® CEILING-MOUNTED PHOTOSensor**

- **Responds to daylight and automatically lowers/adjusts light levels**
- **Linear response from 0 to 500 footcandles**
- **Easily calibrated at GRX-DACPI**
- **Available in white (WH) only**
- **Does not count as one of Wallstations/Control Interfaces**

**Ordering Example**

- **GRX-DACPI-T-WH**
  - add cover option and color/finish suffix to model #

**COVER OPTIONS**
- **Opaque A**
  - Cover and base will match
  - Translucent Black T
  - Black translucent cover with base color from below
**Two-Way Mounting Considerations**
- Detects motion in two directions
- Sensor should mount in the center of space and not face openings into hallways
- Maximum coverage area 2160 sq. ft. (200 sq.m)

**One-Way Mounting Considerations**
- Detects motion in one direction
- Sensor should mount on ceiling against wall where doorway is located and not face openings into hallways
- Maximum coverage area 900 sq. ft. (84 sq.m)

**Mounting Considerations:**
- The Occupant Sensor must have an unobstructed view of the room.
- Do not mount behind or near tall cabinets, shelves, indirect hanging light fixtures, etc.
- Keep the Occupant Sensor away from air flow from ventilation outlets, windows, fans, etc.
- Partitions higher than 48” (1.2m) reduce the coverage area of the sensor.
- Partitionable spaces with partitions higher than 71” (1.8m) should be treated as individual rooms.
- The sensor can detect major motion (such as a person taking a half step) at a greater distance than it can detect minor motion (such as writing or typing at a desk)
- Decrease total coverage area by 15% for “soft” rooms (e.g., heavy draperies or heavy carpeting)

**Lutron Power Pack**
- Powers up to 5 microOS Occupant Sensors

**OCCUPANCY microOS™ OCCUPANT SENSORS**

**One-way**
- MOS-CM-15-WH

**Two-way**
- MOS-CM2W-15-WH
- Connects to GRX-AV/OMX-AV to automatically select Scene 1 when space becomes occupied and turns off lights when space is unoccupied
- Requires Lutron Power Pack (PP-20) to provide power to sensor; up to five sensors can be powered from one power pack
- Detects motion ultrasonically
- Time delay is user-adjustable through software
- Up to five sensors can be powered from one power pack
- Mounting Considerations:
  - The Occupant Sensor must have an unobstructed view of the room.
  - Do not mount behind or near tall cabinets, shelves, indirect hanging light fixtures, etc.
  - Keep the Occupant Sensor away from air flow from ventilation outlets, windows, fans, etc.
  - Partitions higher than 48” (1.2m) reduce the coverage area of the sensor.
  - Partitionable spaces with partitions higher than 71” (1.8m) should be treated as individual rooms.
  - The sensor can detect major motion (such as a person taking a half step) at a greater distance than it can detect minor motion (such as writing or typing at a desk)
  - Decrease total coverage area by 15% for “soft” rooms (e.g., heavy draperies or heavy carpeting)

**Dimensions**
- W: 6.12” (156mm)
- H: 1.62” (41mm)
- D: 2.31” (59mm)
- Ceiling mounted; 3/4” (19mm) diameter hole for mounting post (Lutron-supplied)
### GRAFIK Eye® Accessories

<table>
<thead>
<tr>
<th>Product</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOCKABLE COVERS</strong></td>
<td></td>
</tr>
<tr>
<td>Single-gang</td>
<td>GRX-1GLC</td>
</tr>
<tr>
<td>Two-gang</td>
<td>GRX-2GLC</td>
</tr>
<tr>
<td>Three-gang</td>
<td>GRX-3GLC</td>
</tr>
<tr>
<td>Four-gang</td>
<td>GRX-4GLC</td>
</tr>
<tr>
<td>• Prevents tampering with GRAFIK Eye® Control Units or Wallstations</td>
<td></td>
</tr>
<tr>
<td>• Permits infrared operation</td>
<td></td>
</tr>
<tr>
<td>• Translucent smoked gray</td>
<td></td>
</tr>
<tr>
<td>• Cover slides left or right</td>
<td></td>
</tr>
</tbody>
</table>

| **REPLACEMENT COVERS** | |
| Two-gang | GRX-2-GRC- |
| Three-gang | GRX-3-GRC- |
| Four-gang | GRX-4-GRC- |
| • See pg. 27 or 37 for cover options and base colors. | |
| • For 230V applications, all GRAFIK Eye® 3000 Series Control Units are four-gang | |

| **120V ENTRANCE CONTROL** | NTGRX-15- |
| • Requires 120V line-voltage | |
| • Toggles between Scene 1 and off | |
| • Use for existing 3- and 4-way retrofits; up to 10 can be wired in parallel to one control unit | |
| • Not for use with two-zone GRAFIK Eye control units | |
| • Does not count toward wallstations/control interface maximums | |
| • Vareo® style wallstation gangs with other Vareo controls | |
| • See pg. 46 for color/finishes. | |

| **120VDC PLUG-IN TRANSFORMER** | GRX-12VDC |
| • Input: 120V, 60Hz; Output: regulated 12VDC | |
| • Cord length is 6’ | |
| • Used with GRAFIK Eye 3000 systems when connecting more than three wallstations/control interfaces to a single control unit | |
| • Capable of supplying power to a maximum of 16 Control Station Devices | |

| **LOW-VOLTAGE CABLE** | |
| GRAFIK Eye 3000 | |
| 500’ spool | GRX-CBL-346S-500 (non-plenum) |
| | GRX-PCBL-346S-500 (plenum) |
| • Four conductors: | |
| #18 AWG (1.0mm²) for power wires; #22 AWG (1.00mm²) for control wires | |

| GRAFIK Eye 4000, Centralized Lighting Control System, and Digital MicroWATT® | |
| 250’ spool | GRX-CBL-46L-250 (non-plenum) |
| | GRX-PCBL-46L-250 (plenum) |
| 500’ spool | GRX-CBL-46L-500 (non-plenum) |
| | GRX-PCBL-46L-500 (plenum) |
| • Five conductors: | |
| #12 AWG (2.5mm²) for power wires; #22 AWG (1.00mm²) for control wires | |

Footnotes, pg. 64
1. Depth includes wallplate and backbox. Wallplate depth is 0.35” (9mm).
2. For information on cable size and distance, see “Application Note W74” on the Lutron website.
**RadioRA®/GRAFIK Eye INTERFACE**

<table>
<thead>
<tr>
<th>Model</th>
<th>RA-GRXI-WH</th>
</tr>
</thead>
</table>

- Allows GRAFIK Eye preset lighting controls to be controlled by Radio Frequency where wireless remote control is needed.
- GRAFIK Eye preset lighting scenes can be selected from any RadioRA Master Control in the system.
- Use in larger RadioRA Systems since each interface counts as one device toward the RadioRA System.
- A RadioRA System can have a maximum of 32 dimmers switches/GRAFIK Eye Interfaces.
- Use one interface per room controlled by a GRAFIK Eye preset lighting control; do not link to multiple GRAFIK Eye Control Units in different rooms.

**Ordering Example**

**RALB-2W-SD WH**

Ships in 48 hrs.
- Contact Customer Service about Colors/Finishes and customization.

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**RadioRA RF SIGNAL REPEATER**

<table>
<thead>
<tr>
<th>Model</th>
<th>RA-REP-WH</th>
</tr>
</thead>
</table>

- Required for system communication.
- For more information, contact Lutron.

---

**RadioRA MASTER CONTROLS**

- **Wall-Mounted Large-Button**
  - RALB-2W-SD
  - RALB-2W-AO
  - RALB-2W-RL

- **Wall-Mounted Slim-Button**
  - RAMC-5W
  - RAMC-5W-RL
  - RAMC-10W
  - RAMC-10W-RL
  - RAMC-15W
  - RAMC-15W-RL

- **Tabletop**
  - RAMC-10T
  - RAMC-10T-RL
  - RAMC-15T
  - RAMC-15T-RL

- **Cordless Tabletop**
  - RAMC-10C
  - RAMC-10C-RL

---

**Dimensions**

- **RadioRA/GRAFIK Eye INTERFACE**
  - W: 2.75” (70mm)
  - H: 4.56” (116mm)
  - D: 1.67” (42mm)
  - Wallbox Size: single-gang

- **RadioRA RF SIGNAL REPEATER**
  - W: 3.57” (91mm)
  - H: 3.23” (82mm)
  - D: 0.96” (25mm)

---

**Technical Support:** 1.800.523.9466…24 hours/7 days (US/CAN)  
**To Order:** 1.888.LUTRON1…8 a.m.–8 p.m./M-F ET (US/CAN)

---

**Footnote, pg. 65**

1. Depth includes wallplate and backbox. Wallplate depth is 0.31” (8mm).
2. Depth includes wallplate and backbox. Wallplate depth is 0.35” (9mm).