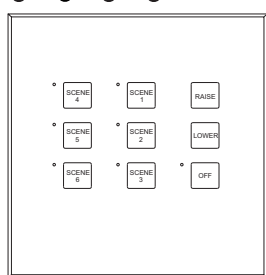
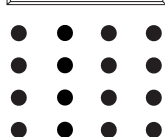
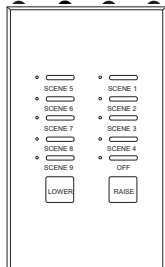
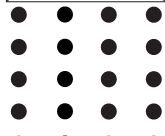
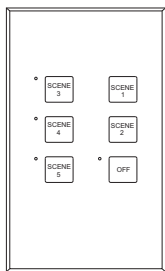


GRAFIK Eye®



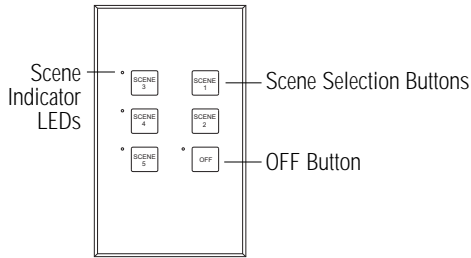
Wallstations

for use with Grafik 3000 and 4000 Series Systems

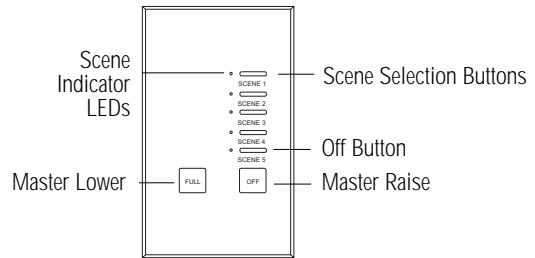
- NTGRX-LB6
- NTGRX-LB6-R/L
- NTGRX-LB9
- NTGRX-LB9-R/L
- NTGRX-KP5
- NTGRX-KP10
- NTGRX-KP15

Wallstation circuits are classified as Class 2 circuits (U.S.A.) and PELV circuits (IEC). Unless otherwise specified, the voltages do not exceed 24 VAC or 15 VDC. As Class 2 circuits, they comply with the requirements of NFPA 70, National Electrical Code (NEC). As PELV circuits, they comply with the requirements of IEC 60364-4-41, VDE 0100 Part 410, BS7671:1992 and other equivalent standards. When installing and wiring to these Wallstations, follow all applicable national and/or local wiring regulations. External circuits connected to input, output, RS232, DMX512, and other communication terminals of Wallstations, must be supplied from a Listed Class 2 source or comply with the requirements for PELV circuits as applicable in your country.

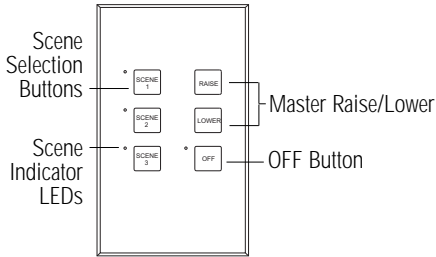
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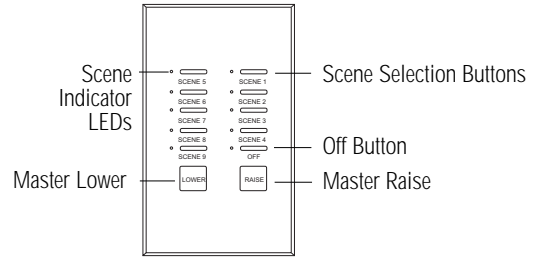
NTGRX-KP5



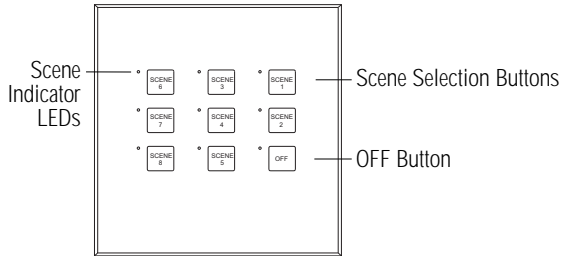
NTGRX-LB6-R/L



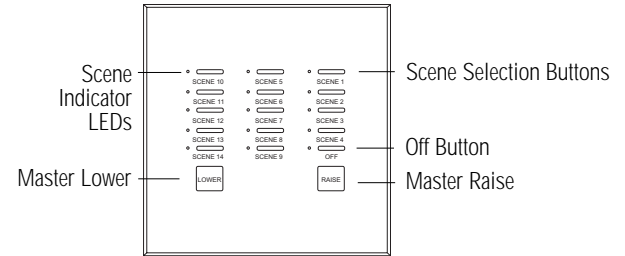
NTGRX-KP10



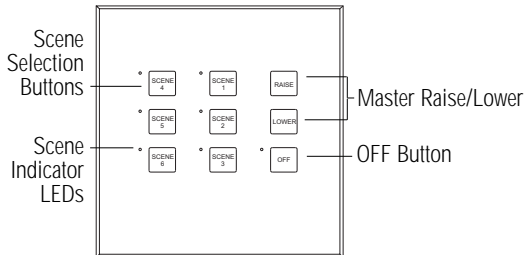
NTGRX-LB9



NTGRX-KP15



NTGRX-LB9-R/L



Note: The functions shown above are based on the factory default DIP switch settings. For alternate settings, see page 5.

Wiring Notes

- System Maximums:
 - 8 Unique GRAFIK Eye® addresses per system.
 - 16 Wallstations per system.
 - *GRAFIK Eye* 3000 Series Control Units can power a maximum of 3 Wallstations.
 - 2000 ft. (610 m) wiring length.
 - 0 °C—40 °C operating temperature.
- Wallstation Wiring
 - **3000 Series:** Four #18 AWG (1.0 mm²) Class 2/PELV wires (2 twisted pair). Lutron offers a one-cable, non-plenum, low-voltage solution (P/N GRX-CBL-346S*), and a one-cable, plenum, low-voltage solution (P/N GRX-PCBL-346S*). Other suggested cables are Belden® No. 9156, Alpha No. 1132, or equivalent, for *GRAFIK Eye* 3000 Series Control Units.
 - **4000 Series:** Two #12 AWG (2.5 mm²) Class 2/PELV wires and two shielded #18 AWG (1.0 mm²) Class 2/PELV wires (twisted pair). Lutron offers a one-cable, non-plenum, low-voltage solution (P/N GRX-CBL-46L*), and a one-cable, plenum, low-voltage solution (P/N GRX-PCBL-46L*).
 - Power: wires 1 & 2, 12 VDC-24 VFW.
 - Data: wires 3 & 4, twisted pair.
- Terminal 2 (power) is not connected between *GRAFIK Eye* 3000 Series Control Units.

* Cable is available in 250 ft. and 500 ft. spools. Add [-250] or [-500] to the end of the P/N to specify the desired spool length.

CAUTION!

- Read all instructions carefully before starting installation.
- Lutron recommends that Wallstations be installed by a qualified electrician.
- Do not connect high-voltage power to low-voltage terminals. Improper wiring can result in personal injury or damage to the control or to other equipment.

Installation



Warning: Always turn Off the circuit breaker/MCB or remove the main fuse from the power line before doing any work. Failure to do so can result in serious personal injury.

Proper wiring of Wallstations is dependent upon the GRAFIK Eye® Control System that is providing power. *GRAFIK Eye 3000 Series* and *GRAFIK Eye 4000 Series* Control Units have different power limitations and wiring techniques. Please confirm the type of Control Unit to which the Wallstation is being wired and use the corresponding instructions that follow.

1. Turn power Off.
2. Mount standard U.S. 1-gang (2-gang for LB9, LB9-R/L, and KP15) wallbox, 2.75 in. (70 mm) deep.
3. Strip insulation from wires so that 3/8 in. (10 mm) of bare wire is exposed for #18 AWG (1.0 mm²) wire.







Each Wallstation terminal accepts up to two #18 AWG (1.0 mm²) wires. Wiring must be done in a daisy-chain configuration as shown on Page 6.

4. Address Wallstations . Each Wallstation in a system **must** be assigned a unique address. Set DIP switches 1—4 of each Wallstation to one of the positions illustrated below and record its location.

For this address		Set Switches	
like this:	Location:	like this:	Location:
↓			
	1 2 3 4		1 2 3 4
1	_____	9	_____
2	_____	10	_____
3	_____	11	_____
4	_____	12	_____
5	_____	13	_____
6	_____	14	_____
7	_____	15	_____
8	_____	16	_____

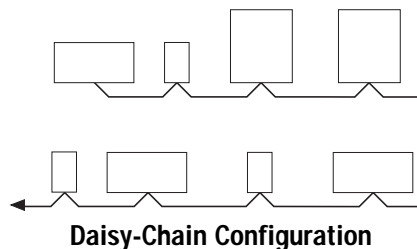
5. Select function. Set DIP switches 5 and 6 on the Wallstation to select its function. DIP switch settings and their corresponding function are shown in the chart on the next page.

Note: Factory default settings for each Wallstation are indicated as “Factory Set” in the table below. All other settings apply to job-specific functions.

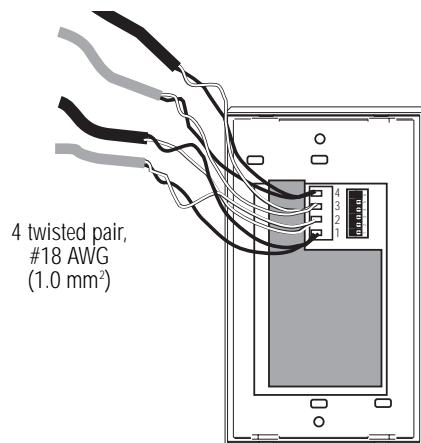
Wallstation				
NTGRX-KP5	Select Scenes 1—5, OFF, and Full ON*	Select Scenes 1—4 and OFF with Raise/Lower (Factory Set)	Select Scenes 6—10, OFF, and Full ON*	Select Scenes 6—9 and OFF with Raise/Lower
NTGRX-KP10	Select Scenes 1—10, OFF, and Full ON*	Select Scenes 1—9 and OFF with Raise/Lower (Factory Set)	Select Scenes 6—15, OFF, and Full ON*	Select Scenes 6—14 and OFF with Raise/Lower
NTGRX-KP15	Select Scenes 1—15, OFF, and Full ON*	Select Scenes 1—14 and OFF with Raise/Lower (Factory Set)	Not Applicable	Not Applicable
NTGRX-LB6	Select Scenes 1—5 and OFF (Factory Set)	Not Applicable	Select Scenes 9—13 and OFF	Not Applicable
NTGRX-LB6-RL	Not Applicable	Select Scenes 1—3 and OFF with Raise/Lower (Factory Set)	Not Applicable	Select Scenes 9—11 and OFF with Raise/Lower
NTGRX-LB9	Select Scenes 1—8 and OFF (Factory Set)	Not Applicable	Select Scenes 9—16 and OFF	Not Applicable
NTGRX-LB9-RL	Not Applicable	Select Scenes 1—6 and OFF with Raise/Lower (Factory Set)	Not Applicable	Select Scenes 9—14 and OFF with Raise/Lower

Note: Full ON corresponds to Scene 16 of the *Grafik Eye* Control Unit. See the section in the *Grafik Eye* Installer's Guide on Advanced Scene Programming Options to set the desired ZONE intensity for Full ON (Scene 16 default ZONE intensity is set to 25%).

6. Wiring must be done in a daisy-chain and 1-to-1 configuration (please see Installer's Guide included with Control Unit for more information). Each Wallstation terminal will accept up to two #18 AWG (1.0 mm²) wires.

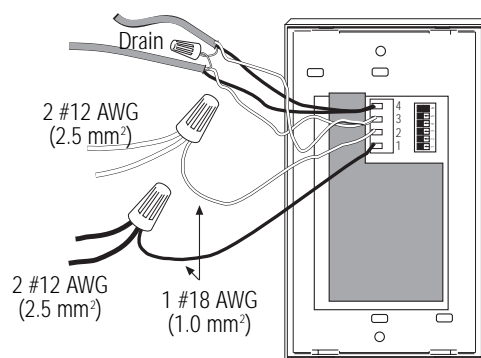


3000 Series System Wiring. Connect four #18 (1.0 mm²) twisted pair wires to the Wallstation's terminal block.



3000 Series System Wiring

4000 Series System Wiring. Connect two #18 (1.0 mm²) shielded, twisted pair wires to terminals 3 and 4 of the Wallstation's terminal block. Shielding/drain must be connected as shown, but do not connect to Earth/Ground or Wallstation*. Two #12 AWG (2.5 mm²) power wires will not fit in the terminal blocks, however, #12 AWG (2.5 mm²) is necessary due to voltage drop on the wire. Use the diagram shown at right to make the connections in the wallbox.

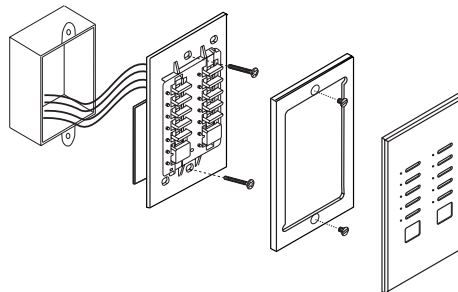


4000 Series System Wiring

Note: Use the wire connector required by local code (those shown are common in the USA).

* Please note that shielding/drain wires are connected to the terminal marked "D", when available.

7. Mount Wallstations as shown. Attach faceplate by pressing in at each corner, one corner at a time.



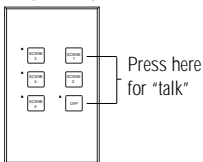
8. Restore power.

System Communications

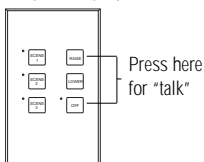
In order for Wallstations to communicate with a Control Unit, each Wallstation must be individually configured to “talk” by putting the Wallstation in setup mode.

1. Put the Wallstation in setup mode (only one Wallstation can be in setup mode at a time).
 - Press and hold the buttons indicated below for about 3 seconds, until the LED(s) start cycling.

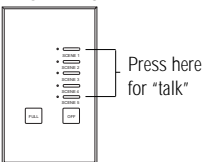
NTGRX-LB6



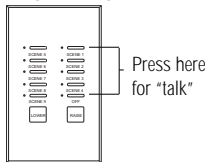
NTGRX-LB6-R/L



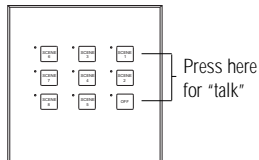
NTGRX-KP5



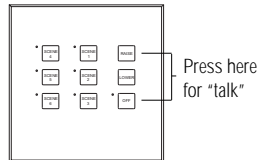
NTGRX-KP10



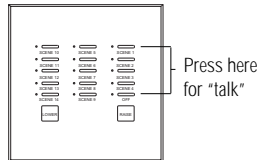
NTGRX-LB9



NTGRX-LB9-R/L



NTGRX-KP15



2. Identify the Control Unit(s) that you want to “listen” to this Wallstation. (Control Units must be addressed in order for them to “listen”!)
 - Press and hold the top Scene button on the Control Unit for about 3 seconds, until the LEDs flash in unison. Repeat for each Control Unit that you want to “listen” to the Wallstation.



LEDs flash in unison

Note: (To make a “listening” Control Unit not listen to a Wallstation: Put the Wallstation in setup mode, then press the “listening” Control Unit’s OFF button until the LEDs stop flashing.).

3. **Exit setup mode.** Press and hold the buttons indicated in Step 1 for about 3 seconds until the LEDs stop cycling (or flashing).

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This warranty is in lieu of all other express warranties, and the implied warranty of merchantability is limited to one year from purchase. This warranty does not cover the cost of installation, removal or reinstallation, or damage resulting from misuse, abuse, or improper or incorrect repair, or damage from improper wiring or installation. This warranty does not cover incidental or consequential damages. Lutron's liability on any claim for damages arising out of or in connection with the manufacture, sale, installation, delivery, or use of the unit shall never exceed the purchase price of the unit.

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