

GRAFIK 5000™/6000®/7000™ System Onsite Startup

What Standard GRAFIK 5000™/6000®/7000™ Startup includes:

- Three visits to the job site during normal business hours. A pre-wire visit, a Startup visit, and a training visit. These are three visits between the hours of 7 AM and 5 PM on a Monday through Friday that is not a Lutron Holiday.
- Visits may require multiple days depending on the size of the system.
- Phased construction projects (requiring multiple visits) should verify this was included with the system provider.
- Visits can be made outside these hours for an additional charge.
- Lutron requires a notice of fifteen (15) business days to schedule a startup date. Shorter notices may incur expedite fees.

Logistics

- To schedule onsite service e-mail us at www.lutron.com/scheduling or call at 1.800.523.9466.
- Please contact Lutron 3 weeks prior to the requested visit date.

A Lutron factory certified technician performs all system Startup items.

All terminations will be done by the installing agency. A person from the installing agency needs to be present for the pre-wire and Startup visits, this person should be familiar with the installation of the system.

System pre-wire inspection visit including:

- Familiarize the electrical contractor, project manager, owner's representative, with wiring and mounting of system devices.
- Review preliminary ideas for wiring Lutron® computer wall jack, local wall controls, ceiling mount controls/sensors, interface devices, centralized processor, and dimming/switching panel locations.
- Review preliminary mounting locations and wiring practices for PC/Server, Lutron® computer wall jack, local wall control, ceiling mount controls/sensors, interface devices, centralized processor, and dimming/switching panels.
- Request the name and contact information of the person(s) who will work with Lutron to define the graphical user interface (if applicable).
- Understand the overall project schedule

System start up includes:

- Verification that the GRAFIK 5000™/6000®/7000™ is installed according to Lutron specifications.
- Verify/set up system PC/Server (if applicable).
 - Verify that an Ethernet drop is available at the PC/Server.
 - Verify proper wiring and operation of the user interface link.
 - Verify Lutron processor and transfer system database.
 - Panels should be energized in by-pass and tested prior to our arrival.
 - Loads are checked for shorts and overloads and bypass jumpers are removed.

Job Name:	Toll Free 24/7 Tech Support Line 1.800.523.9466
Job Number:	Field Service Scheduling 1.800.523.9466 ext 4439 or www.lutron.com/scheduling

Programming the dimming/switching panels to include:

- Panel addressing
- Verify proper wiring and operation of control link
- Proper load types assigned as installed or as per approved submittal drawings. As installed conditions take precedence. This may be a modular system and if loadtypes differ from the original design additional/different equipment may be required.
- Circuit to button assignments as per approved submittal drawings. If no button information exists prior to Startup, programming will be done according to written instructions from end user or end users representative, contractor, or will be based upon the following rules:
 - Motion sensors:
 - o In spaces with a wall control, motion sensors will be set up as a vacancy sensor (only automatically turning off the lights) with 15-minute +/- 1-minute timeout.
 - o In spaces without a wall control, motion sensors will be set up as occupancy sensors (automatically turning the lights on and off) with a 15-minute +/- 1-minute timeout.
 - Daylight sensors:
 - o Calibrated in such a manner to provide 40 fc +/- 5 fc 3 ft (91 cm) off the floor at a specific point in the room, typically the center of a desk or directly under a fixture. Note the consistency of light distribution throughout the space is highly dependent upon fixture design and placement.
 - Wall controls:
 - o One button – Toggle lights on and off.
 - o Two button – Top button will turn lights on and bottom button will turn lights off.
 - o More than two buttons.
 - For Dimmed zones: Top buttons will set the lights to different levels. Bottom button will turn the lights off.
 - Timeclock settings:
 - o Lights on the Lutron® system on the building's exterior will turn on at sunset and turn off at sunrise.
- Set light levels and fade times on controls as per approved submittal drawings. If no information is provided, test scenes will be set to 100%, 75%, 50% and 25 % and default fade times will be set to 3 seconds.
- Program emergency function per the installation guide for the system. This may not be applicable for every system.

Programming the wall controls/interfaces to include:

- Control addressing
- Verify proper wiring and operation of control link
- Set up controls to function as per approved submittal drawings. If no control functionality is included, controls will be programmed according to written instructions from end user or end users representative, contractor, or will be set up based on the field engineers past experience in that order of priority.
- Test all buttons to assure proper operation
- Occupancy sensor
 - Verification of proper installation and operation. If a sensor is not installed in accordance with Lutron procedures, Lutron will not continue Startup activities on that sensor until the installation issues are corrected.
 - Unless otherwise noted, a rough calibration will be performed at system Startup. Final calibration is the responsibility of the end user since it is very dependent on furniture placement, HVAC operation, and space usage. Lutron will not fine-tune occupancy sensors to detect minor movements in the space or to not detect motion that contributes to false-trips.

Job Name:	Toll Free 24/7 Tech Support Line 1.800.523.9466
Job Number:	Field Service Scheduling 1.800.523.9466 ext 4439 or www.lutron.com/scheduling

- Photocell
 - Verification of proper installation and operation. If a sensor is not installed in accordance with Lutron procedures, Lutron will not continue startup activities on that sensor until the installation issues are corrected.
 - Unless otherwise noted a rough calibration will be performed at system Startup. Final calibration is the responsibility of the end user since it is very dependent on furniture placement, window treatments, outside weather conditions and space usage. Lutron will not fine-tune photocell sensors to achieve specified foot-candle readings.
- Timeclock set up
 - Lutron will set up timeclock events as per the approved submittal drawings or written instructions from end user or end users representative, contractor in that order of priority.
 - In lieu of instructions, the timeclock will not be programmed.

Items not included in standard onsite startup

- Lutron Service Technicians will not perform work on non-Lutron® equipment. Lutron will work with other manufacturers on integration of equipment by others.
- Programming or any other changes that are requested to be performed counter to the approved submittal drawings must be approved via the proper channels.
- Field wiring changes or corrections that delay the startup process into additional time required for Lutron to finish the job in the allotted time will result in additional charges.
- Replacement of controls damaged due to miss-wires or incorrect installation or any other related issue not covered under the Lutron warranty is the responsibility of the installer.

End user training visit on overall system operation (typical training agenda is attached):

- It is the responsibility of the person scheduling the Startup to ensure the appropriate end users are present for training. Lutron typically does not have these contacts.
- Additional charges will apply if additional visits are required for training the end user.
- Lutron does not provide video media for training sessions. This may be provided by “others” for turnover to the end user or job site documentation.
- Download the graphical user interface (if applicable).
- System demonstration and sign-off by the end user.

Graphical User Interface (GUI) design visit including (if applicable):

- Lutron Graphical User Project Specialist to work with the owner’s designated GUI designer to develop the Lutron Graphical User Interface.
- Owner’s GUI designer to provide the customer’s desired graphical images.
- Lutron Graphical User Project Specialist to work with the owner’s designated GUI designer to develop the control strategy and determine how each image will be used.
- Schedule the fine-tuning GUI visit.

Fine Tuning Graphical User Interface visit including (if applicable):

- Fine-tune the graphical images/control strategy with owner’s designated GUI designer.

Job Name:	Toll Free 24/7 Tech Support Line 1.800.523.9466
Job Number:	Field Service Scheduling 1.800.523.9466 ext 4439 or www.lutron.com/scheduling

Additional items that are not included with standard Startup, but may be purchased—check your quote to verify an item has been included with your quote. The quantity of the items listed below on the BOM will determine how many days are included with this item.

- LSC-AF-VISIT - Onsite Scene and Level Tuning visit with design team or end user. This visit is typically coordinated by the construction team, that includes designers, Lutron, and end user to set up light levels and adjust fixtures.
- LSC-SYSOPT - System Optimization Visit with end user. This visit is coordinated by the EC or end user to optimize the system performance to specific project details.
- LSC-WALK - Startup agent or design team System Performance-Verification Walkthrough visit. The construction team and the agent requiring the walk-through coordinate this visit. This visit is for any type of additional walk-through that is required for job completion.
- LSC-SILV/GOLD/PLAT-IW - These are Technology Support Plan numbers for the system per the specification. Warranty information is supplied within the submittal documentation.
- LSC-TRAINING - Customer-Site Solution Training visit for additional time on the job for training the end user. The EC or the end user typically coordinates this visit.
- LSC-AH-SU - After Hours Startup. If normal business hours are not acceptable for Startup, After Hours Startup can be purchased.
- LSC-LEED-DOC - Solution Performance-Verification Documentation that describes the pre-functional tests, functional tests, and test results.
- LSC-SENS-LT - Sensor Layout and Tuning Service. Ensures that the Lutron® sensors are properly positioned and programmed.

Additional items listed below may be charged for additional costs incurred.

- LSC-SITE-RDY-CHG - Site ready charge. Jobsite not ready.
- LSC-SRVC-OVERRUN - Charge for additional time/manpower required due to contractor turn-over issues.
- LSC-CHANGE-ORDER - Charge for a change in sequence of operation after the commissioning has begun.
- LSC-INT-SUPPORT - System and Network Integration Consultation to provide onsite support to the System Integrator or IT Professional related to difficulties integrating to the Lutron® lighting control system.

Job Name:	Toll Free 24/7 Tech Support Line 1.800.523.9466
Job Number:	Field Service Scheduling 1.800.523.9466 ext 4439 or www.lutron.com/scheduling

GRAFIK 5000™/6000®/7000™ Series

GRAFIK 5000™/6000®/7000™ Series is a centralized processor based architectural preset lighting control system that creates functional spaces through various lighting combinations. It utilizes low voltage digital controls that communicate with a centralized processor and high voltage dimming and switching panels. The digital nature of the product allows the user to quickly and easily select lighting scenes to align with the use of the space. These scenes can be reprogrammed through software as the needs of the space change.

GRAFIK 5000™/6000®/7000™ Series Training Visit—Typical Agenda (duration—approximately 3 hours):

- Review complete system with end user (control location and function)
- Discuss system model numbers
- Discuss Lutron lexicon—what is a zone, scene, fade rate, delay rate, etc.
- Review eLumen™ software suite
 - DesignIT™
 - o Add, remove, or re-label space names, scene names, zone names, control names, panel names, etc.
 - o Partitioning, sequencing, conditional logic
 - o Program control functions
 - o Program circuit to zone assignments
 - o Program load types
 - o Schedule time clocks—real time, astronomic
 - o Change scene intensities
 - ControllIT™
 - o Monitor and control your lighting system
 - o Change scenes/zone intensities
 - o Compile and transfer system changes made with DesignIT™
 - SecureIT™
 - o Add users to your system
 - o Assign passwords for users
 - o Assign/change rights and privileges for users
 - ConfigureIT™
 - o Real-time configuration changes to scenes. Modify zone intensity, fade time and delay time
 - o Flash zone to find in space
 - o Save options
 - Backup, Restore, and Update Tool
 - o Backup database
 - o Restore database
 - Update database
 - System Log

(continued on page 6)

Job Name:	Toll Free 24/7 Tech Support Line 1.800.523.9466
Job Number:	Field Service Scheduling 1.800.523.9466 ext 4439 or www.lutron.com/scheduling

- Review all accessory controls addressing
- Review dimmer/switching panel(s)
 - Bypassing outputs
 - Spare dimmer cards/modules, switching modules
 - Load schedule
- Troubleshooting system. Panels, processor, controls, interfaces
- System integration
- Warranty information
- Review Service and Support Guide | Lighting Control System
- Tech support
- Lutron-Site Solution Seminars

NOTE: All topics may not be relevant to every system

Job Name:	Toll Free 24/7 Tech Support Line 1.800.523.9466
Job Number:	Field Service Scheduling 1.800.523.9466 ext 4439 or www.lutron.com/scheduling