

GRAFIK 5000/6000/7000 System On-Site System Start-up

What Standard GRAFIK 5000/6000/7000 start-up 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 Ten (10) business days notice to schedule a start-up date. Additional charges may apply for expedited service inside ten business days

A Lutron factory certified technician performs all system start-up 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 analog phone line is provided for the system PC/Server modem.
 - Verify proper wiring and operation of the user interface link.
 - Verify Lutron processor and transfer system database.
 - Panels should be energized in by-pass fully lamped and tested prior to our arrival.
 - Loads are checked for shorts and overloads and bypass jumpers are removed.

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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 start-up, programming will be done 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.
- 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
- 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.
- Occupancy sensor
 - Verification of proper installation and operation.
 - Unless otherwise noted, a rough calibration will be performed at system start-up. Final calibration is the responsibility of the end user since it is very dependent on furniture placement, HVAC operation, and space usage.
- Photocell
 - Verification of proper installation and operation.
 - Unless otherwise noted a rough calibration will be performed at system start-up. 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.
- Time clock set up
 - Lutron will set up the system location, daylight savings, and time of day preparation for event programming.
 - Lutron will set up time clock 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 time clock will not be programmed.

Items not included in standard on-site 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 such that additional time is required for Lutron to complete the startup will result in additional charges.

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- 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.
- Reprogramming of any functions after initial programming and sign-off.

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

- It is the responsibility of the person scheduling the start-up 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.

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. Aim and focus 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. Start-up agent or design team walk-through 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 extended warranty part numbers for the system per the specification. Warranty information is supplied within the submittal documentation.
- LSC-TRAINING. This visit is 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 start-up. If normal business hours are not acceptable for start-up, after hours start-up can be purchased.

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Additional items listed below may be charged for jobsites that are scheduled for start-up, but not ready when field service engineer arrives.

- LSC-NS-TRAVEL. Non standard travel arrangements
- LSC-SITE-RDY-CHG. Site ready charge. Jobsite not ready .

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.

5000/6000/7000 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
- Review eLumen software suite
 - o DesignIT
 - Add, remove, or Re-Label space names, scene names, zone names, control names, panel names, etc.
 - Partitioning, sequencing, conditional logic
 - Program control functions
 - Program circuit to zone assignments
 - Program load types
 - Schedule time clocks – real time, astronomic
 - Change scene intensities
 - o ControllIT
 - Monitor and control your lighting system
 - Change scenes/zone intensities
 - Compile and transfer system changes made with DesignIT
 - o SecureIT
 - Add users to your system
 - Assign passwords for users
 - Assign/change rights and privileges for users
 - o ConfigureIT
 - Real-time configuration changes to scenes. Modify zone intensity, fade time and delay time
 - Flash zone to find in space
 - Save options
 - o Backup, Restore, and Update Tool
 - Backup database
 - Restore database
 - o Update database
 - o System Log

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- Review all accessory controls addressing
- Review dimmer/switching panel(s)
 - o Bypassing outputs
 - o Spare dimmer cards/modules, switching modules
 - o Load schedule
- Troubleshooting system. Panels, processor, controls, interfaces
- System integration
- Warranty information
- Tech support
- Lutron Facility Managers Training

NOTE: All topics may not be relevant to every system

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