

Electrical Contractor,

Thank you for requesting information regarding the startup and training for the lighting control system by Building & Controls. The enclosed information should be reviewed and completed immediately to ensure the timely completion of your project.

Please email ALL completed forms to Building & Controls service team to startup@buildingandcontrols.com. A confirmation will be sent within 1-2 business days of receipt of forms.

Typical lead times for scheduled appointments with Building & Controls is 2 weeks

STARTUP AND TRAINING INCLUDES THE FOLLOWING:

Check System Hardware:

1. Review of inputs and outputs for installation and function & network communications. Update device firmware.

Check System Software:

1. Review all computer software functions, scheduling, and programming parameters.

Owners Training:

1. Demonstrate hardware, which includes function, diagnostic indicators, connections, troubleshooting, and replacement.
2. Instruction on all software functions including keypad or software programming and system monitoring.
3. Hands on training for system management and configuration.

APPOINTMENT REQUIREMENTS:

- Startup Checklist. This confirms that the project is ready for startup.
- All electrical services and other hardware pertaining to the lighting project should be completely installed at the time of the startup. Complete installation means:
 - All control wiring is connected and terminated.
 - Access to all controlled areas of the building.
 - Assistance of the project electrician while on site to check out the system.
- Please ensure that all people involved with the maintenance and operation of the system can be present for training and instruction.
 - 1-2 Hours – Hardware and Software demonstration and familiarization.
- Relay and Dimming Panel Forms. Please complete the appropriate system worksheet per panel, with the desired programming for each panel.
- Include additional Manufacturer Worksheets if required for network devices, Building Automation, Sequence of Operations, and Switch Control.

STARTUP WILL NOT BE SCHEDULED UNTIL ALL INFORMATION IS RECEIVED



5 South Kalamath Street, Denver, CO 80223
P: 303-295-2900 | startup@buildingandcontrols.com

CONTACT FORM – Please fill out completely.

Agent Contact Information:

Agent: Illumination Systems
Agent Contact: Controls Department – Building and Controls
Agent Phone #: (303)-295-2900
Agent Email: startup@buildingandcontrols.com

Site Information:

Job Name: _____
Job Address: _____
City/State/Zip: _____
Job PO Number: _____

Contractor Contact Information:

Company Name: _____
Phone Number: _____
E-mail Address: _____
Site Contact Name: _____
Site Contact Phone Number: _____
Site Contact E-mail Address: _____
Other contact information: _____

Pre-visit checklist:

Available site hours: _____
Safety, training and PPE requirements: _____
Site Orientation required: Yes/No

IT Contact Information

IT Contact Name: _____
IT Contact Phone Number: _____
IT Contact E-mail Address: _____

Integrator Contact Information

Integrator Name: _____
Integrator Phone Number: _____
Integrator E-mail Address: _____



FIELD TECHNICIAN STARTUP REQUIREMENTS

All Startup Request Forms must be transmitted along with any Panel Schedules and Manufacturer Worksheets to schedule a startup date. By providing a general overview of the site preparations you can reduce the risk of additional charges due to the site not being ready for programming. Any additional charges incurred at the time of programming due to the site not being ready, inaccurate or incomplete paperwork, or incomplete wiring will be the responsibility of the requesting party per our Project Startup Policy.

Controls Startup appears as a line item on your Bill of Material.

The requested date of programming is contingent upon confirmation from the Building & Controls team and technician availability. Building & Controls requires that a minimum of fourteen (14) business days prior notice be provided.

Please ensure that an electrician that is familiar with the project/system will be available during programming hours. Failure to do so may result in additional trips or work, and additional charges per the Building & Controls Team service rates.

Refer to the Manufacturer Links at the end of this form for additional Lighting System worksheets that may be required. This includes worksheets for Sequence of Operations, Panel Schedules, Switches, Building Automation, & Building Network. Download the applicable worksheets and include them with these Startup Forms.

Requested Programming Date: _____

Job Site Working Hours: _____

Check all that apply:

- The Lighting Control System is completely installed according to installation instructions.
- The Lighting Sequence of Operations or Controls narrative not provided, Standard Default Programming requested (see page 5).
- Client personnel will be available for training (typically on the last day of programming).
- Integrator will be available to test integration of components (if applicable).
- IT personnel is available to provide building network information (if applicable).

Signature: _____

Print Name: _____

Date: _____



PROJECT STARTUP POLICY

Work Hours: This job has been quoted with the understanding that the on-site work will be performed in a singular, continuous interval during normal business hours (weekdays, 7:30AM – 4:30PM). The system startup time includes the technicians travel to and from site. Building & Controls reserves the right to charge a premium in addition to our standard startup rate if work is performed outside of the hours of 7:30AM – 4:30PM Monday through Friday, or if the visit is scheduled on a Building & Controls corporate holiday.

Overtime Site Visits: When scheduling on-site work outside of our normal business hours an overtime rate will apply for each hour (up to 10 hours) of work.

Cancellation and Late Notice Policy: Building & Controls understands the job schedule changes can and will occur and will strive to accommodate changes in our customer’s schedule. However, Building & Controls incurs additional travel related expenses whenever project programming is cancelled late, as defined in the cancellation policy below. Additional charges will apply in the event the customer does not comply with the cancellation policy.

Cancellation and Rescheduling Policy: For schedule service projects, Building & Controls will require at least (5) business days advanced notice for cancellation or requested rescheduling of startup visits (e.g., if the startup visit is scheduled for Friday, the cancellation or requested reschedule must be received by Building & Controls no later than the prior Friday). If a cancellation notice or rescheduling notice is received less than 5 business days from the scheduled on-site date, additional charges will apply, and Building & Controls will require a revised or new P.O. to complete the programming at a later date. Once the cancellation request is received by the Building & Controls team, a confirmation email will be sent to the requestor with a reschedule form for completion.

Note: Startup cannot be re-scheduled until a revised or new P.O. is received by Building & Controls.

Late Schedule Notice Policy: Building & Controls understand that some jobs may require an expedited startup time frame. For startup on projects that require startup notice less than the standard fourteen (14) business day lead time, the customer may request expedited service for a fast-track fee. Building & Controls will attempt to accommodate an expedited service request, but it remains strictly subject to availability and may not be possible based on current service demand. Payment of the expedited service fee will be required prior to scheduling the on-site start up.

Additional Disclaimer: In signing this startup document, the agent and the electrical contractor agree that the site is at least 95% complete per Building & Controls installation instructions. “Complete” means the installing party has read all documentation, followed all specifications, installation, and pre-programming instructions, and has followed standard procedures to ensure the system is operating per the manufacturer's documentation. Failure to do so may result in additional charges per the Building & Controls team standard service rates.

Signature: _____

Print Name: _____

Date: _____



STANDARD DEFAULT PROGRAMMING

Relays and dimming devices: These will correlate with the area names, if provided upon arrival.

Keypads: Each button will be programmed to correlate with the area of lights it is controlling in the space.

Keypads/Touchscreens: 100%, 75%, 50%, 25%, Off light level scenes will be programmed to trigger the area of light being controlled in the space.

Motion Sensors: Each motion sensor will be programmed to correlate with the area of lights it is controlling in the space. Timeouts & sensitivity to be adjusted by the electrician when installing sensors.

Time Schedules: No time schedules will be implemented unless stated on the control plans.

Photocells: Each photocell will be programmed to correlate with the area of lights it is controlling in the space. Exterior photocells will be programmed to turn all exterior lights on at dusk and off at dawn.

Programming Technician: It is the technician’s discretion on how the lighting system gets configured if a controls narrative was not provided in the request for startup.

If ALL PAPERWORK is submitted CORRECTLY five (5) business days before the startup, the paperwork will take the place of the default programming procedure.

Any additional time required due to the below may result in a return visit and additional charges (standard scheduling procedures apply, including a P.O. and up to 21 days to return).

- System not being completely installed prior to the arrival of the technician.
- Programming requirements outside the scope of these documents.
- Lack of panel schedules detailing location of landed control channels
- Local code requirements not being defined in writing.

Signature: _____

Print Name: _____

Date: _____

Disclaimer: The failure of any/all persons involved with the maintenance and operation of the system being present for the entirety of training and instruction during factory startup resulting in a return visit being necessary will be considered a billable visit and additional charges will apply. It is the responsibility of the requesting party to make sure those persons requiring training are available at the appropriate time during factory startup and not the Building & Controls field technician.



STARTUP CHECKLIST FOR WAVELINX WIRED LIGHTING SYSTEM (PANELS: ILS, ILM, ILL, SC-UN)

Check all that apply:

- The equipment has been mounted in accordance with the installation instructions provided with the equipment.
- All loads and power supplies have been tested prior to them being terminated at the equipment.
- All lighting loads landed on relays and documented on panel schedule with circuit #. Refer to Worksheet Links.
- The 5-wire Belden cable has been daisy-chained between all control devices and an as-built of the cable route is attached to this startup request.

Dimming (if applicable):

- All areas / fixtures required for dimming have been wired and tested.
- All ELV / MLV fixtures have the appropriate dimming module installed for 0-10v conversion.

Daylighting (if applicable):

- All fixtures in daylight zones are separated and wired for individual control and are dimming as required.

Sensors (if applicable):

- All occupancy sensors are installed and wired to RD4 Powerpack and to UIM / UIG with inputs documented, are a minimum of 4-6' away from air supply vents, and have timeouts adjusted per plan requirements.
- All exterior photocells are installed facing North and wired to RD4 Powerpack and to UIM / UIG.

Networking (if applicable):

- All ethernet cables have been installed and tested.
- All network devices have been installed and are powered.
- IT personnel have provided necessary networking information for all system devices. Refer to Worksheet Links.

System Integration (if applicable):

- All system integration devices are installed, powered and connected to the network.
- Integration personnel have provided necessary information for all system devices. Refer to Worksheet Links.

Documentation:

- Any alterations to the Lighting Control plans have been documented in a project as-built, to be provided to the commissioning agent at startup and client at owners training.
- All device install locations have been recorded for ease of future troubleshooting and maintenance.
- Sequence of operations, schedules, and business hours have been provided. Refer to Worksheet Links.

Additional Notes:



BUILDING & CONTROLS

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Startup Request Forms

WaveLinx Wired

WORKSHEET LINKS

Download and include worksheets applicable to your project.

Sequence of Operations/Controls Narrative

[Sequence of Operations / Controls Narrative](#)

[Sequence of Operations / Profile Worksheet](#)

Panel Schedules

[Panel Schedule](#)

Switch Worksheets

[Wallstation / Switch Worksheet](#)

Building Automation

[Building Automation / Integration](#)

Building Network

[Building Network Information](#)