Elegance
PC Programming Guide

Programmer’s Guide
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Section 1:
Introduction

Congratulations on your purchase of the CentraLite® Elegance™ or Elegance XL lighting control system! Because of the large number of loads and switches available, the Elegance system requires a PC for programming. The CentraLite Elegance Configuration Software uses a familiar Windows environment for configuring and programming your Elegance system. This guide will show you how to configure your Elegance System using the Elegance PC Programming Software.

Programming the Elegance system through a PC is simple and can be picked up rather quickly with practice. To program the Elegance system with a PC, 4 things are vital to have prior to leaving for the job site. These include:

1. A computer with a free serial port. If your computer does not have a serial port, then a USB to serial adapter can be used. We recommend using the IOGEAR GUC232A adapter. (www.iogear.com)

2. The latest version of the Programming Software which can be downloaded at www.centralite.com Please be sure to download the latest updates as they change regularly.

3. A straight through serial cable. The serial cable can be bought or made. If made, the only pins you will need are 2, 3, and 5. Make sure this is a straight through cable and NOT a NULL MODEM cable.

4. Finally, you will need an Elegance Master Control Panel (MCP).

Each Elegance Master Control Panel (MCP) can handle up to 48, 96 or 192 controlled loads (depending on the controller) and 384 switch inputs. If more loads are needed, multiple MCP’s can be connected via RS-232. For clarity, loads are defined as any set of lights, fans, or devices controlled by one solid state relay. Inputs are defined as any switch or keypad button attached to a STARS chain.

Loads are controlled by a 12-, 24-, 36-, or 48-Relay Panel. The Relay Panel contains an intelligent relay controller that resides within the panel. The addressing of the relay controller (assigning specific identification to each relay and controller) is made by terminating (attaching) the connecting cable to the appropriate location on the MCP. Each relay controller handles 24 relays. The first relay connector on the MCP controls relays 1-24, the second controls relays 25-48, etc. The Relay Panels contain solid-state relays, which are capable of dimming lighting loads. Switches are terminated in plug-in connectors on the STAR controllers. The STAR controllers are housed in a GP-16 box which can be located within a finished wall or in an open area such as an attic or mechanical room. Each STAR controller can operate up to 24 switch inputs. The STARS inputs can be wall switches or any other contact closure input.

Scenes are lighting scenarios that create moods around the home. Scenes are programmed from the Scenes Configuration page. Scenes should only be programmed after the loads have been named and configured.
The Elegance system features an astronomical real-time clock that can keep track of sunrise and sunset. The clock is used to trigger events that can activate or deactivate scenes at certain times of the day and certain days of the week.

Remember that if you have any trouble you can visit our helpdesk at www.centralite.com or call us toll free at 877-466-5483 with any questions.
Section 2: Download and Setup

The Programming software is available for download at www.centralite.com. To download the program, follow the steps below:

1. Point your browser to www.centralite.com and click on Products.
2. Next scroll down and click on **Programming Software**.

3. When a dialog box pops up, click on **Run** to begin installation of the Elegance Programming software.
4. Click **Run** on the next dialog box that appears.

![Internet Explorer - Security Warning]

**The publisher could not be verified. Are you sure you want to run this software?**

- **Name:** setup280.exe
- **Publisher:** Unknown Publisher

[Run] [Don't Run]

This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust. [How can I decide what software to run?]

5. Click **Next** on the following dialog box.

![Setup - Elegance]

**Welcome to the Elegance Setup Wizard**

This will install Elegance 2.90.24 on your computer.

It is recommended that you close all other applications before continuing.

Click Next to continue, or Cancel to exit Setup.
6. Accept the defaults for the next box and click Next.

7. Accept the defaults for the next box and click Next. (You can choose to have an icon in the Windows quick launch bar if desired. Simply check the box that says Create a Quick Launch Icon.)
8. Click **Install** to begin the installation of the software.

9. Click **Finish** to complete the install and begin using the Elegance Programming Software.
Section 3: 
Getting to Know Your Screens

3.1 Main Screen

When the Elegance Programming software is started, the first screen you will see is known as the Main Screen. From here, you can jump to any of the screens you need. There are some important elements of this screen that you need to become familiar with.

3.1.1 Open a New File

When the software is opened, a blank file is created. This file is your template for all new customer files. All of the information in the file is set to default values.

3.1.2 Open a Customer File

From the File menu, click Open. You could also hit the Open button on the Main Screen. This will open a dialog box that asks for the file name. Browse to your saved file Location and click Open. This will open your customer's file and load all of the information into the program. You will be brought back to the Main Screen.
3.1.3 Saving a Customer File

It is a good idea to constantly save your work. To save a file, click on the File menu then on Save or click on the Save button from the main screen. Save the file in a location that you can remember and easily return to. (ex. C:\EleganceFiles) It is also a good idea to save the file with the person’s address as opposed to their name. You might have several customers with the same last name or the house may be sold to someone else. The address will normally stay the same.

3.1.4 Connecting to the Elegance’s MCP

To transfer all programmed information, you must first be connected to the Elegance system through a RS232 cable. This cable plugs into the RS232-1 port on the MCP. The other end plugs into a communication port on your computer. Make sure that the unit is on and all dip switches are in the off position unless multiple MCP’s are used. There are two ways to connect using the software. These include Automatic Port Scanner and Manual setup.

Connect Using Automatic Port Scanner

This is the easiest way to connect your software to your MCP. This option is set as default. When you open the program, the Automatic Port Scanner should start scanning your ports to see if an Elegance system is connected to one of them. If the program connects to the MCP, a green RS232 box will be displayed in the upper left section of the Main Screen. To disable this option, click on the RS232 Menu from the Main Screen, and uncheck the Automatic function.

Connect Using the Manual Technique

If the Automatic Port scanner did not work for you or you want to manually change Com Ports, then the Manual Technique would be the better option. From the Main Screen click on the RS232 Menu and then Setup then click Select Com Port. From there, select the Com port that you are connected to. After a Com Port is selected, click on the Connect Option in the same RS-232 Menu.
**Am I Connected?**

If you have successfully connected to the Elegance MCP, a green RS232 image should appear in the center of the screen along with the firmware version of the Elegance. If you do not see this or the RS232 is red, then you need to try to connect again. You might need to change to a different Com Port.

![RS-232 Image and Firmware Version](image)

A good way to test your connection would be to hit the **All On** button to turn on all of the lights in the All On scene. Click **All Off** to turn the corresponding lights off. You can also click the **Get Time** Button to return the time in the clock of the MCP. Finally, you can click **Display** to monitor all of the loads in your house. This button will take you to the Display page will be discussed later in this manual in section 3.5.

![Test and Display Options](image)

**3.1.5 The Send Command**

To send all programmed information to the MCP, you must click the **Send** button at the top of the Main Screen. From the Main screen, the Send button sends load, input and scene information. Clicking Send from other screens only sends that particular screen’s information. For example, if Send is clicked from the loads page, then only the load information is sent. The same is true for the Send button on the Inputs and Scenes pages.
3.1.6 The Receive Command

If you are unable to locate your file for a job, the Receive command can be very useful. The Receive command from the Main Screen will gather all of the information in the MCP and load it into your programming software. After this is done, click the "Save" Button to save the information into a new file. Note Only do this if necessary. Just like the send button, clicking on the Receive button from any other screen will only receive the data for that particular screen. For example, clicking on Receive from the inputs page will only receive the Inputs data.

Note: Because of memory constraints on the MCP only settings will be returned. No names will appear in a Received file. However, the file will have all other settings relative to the loads, inputs, and scenes.
3.2 Loads Configuration Screen

The Loads Configuration Screen is used to modify the properties of each load. From this screen the programmer can define if a load is a standard Lighting Load, Low Voltage Relay Board (LVRB), or Fan Speed Control Board (FSCB). Each load can be individually configured to behave as the user wishes. To access the Load Configuration page simply click the Loads button from any screen.

Note: When programming a system it is logical to program the loads first. This ensures that all loads perform as desired during input and scene programming.

The Load Configuration screen is divided into three main sections. These areas include a Load Selection Area, Load Editing Area and Testing Tools Area. Each of these sections will be discussed in depth in the following sections.
3.2.1 Relay Panels

Each MCP has eight relay driver outputs. These outputs are used to drive Relay Drivers Boards for Relay Panels, LVRB’s, and FSCB’s. At the top left-hand side of the Loads Configuration window there is a tab labeled Relay Panels. By clicking on Relay Panels a drop down menu appears. From this menu select the number of Relay Drivers that will be used on this particular MCP. The default selects all eight relay drivers. The amount of relay panels selected corresponds to the amount of tabs above the Load Selection window.

3.2.2 Load Selection Screen

The Loads Selection window has up to eight tabs at the top that each represents a relay driver output on the MCP. The Load Selection screen gives the programmer the ability to name each Relay Driver output and to designate them as a standard Relay Driver, LVRB or FSCB. By keeping the LVRB and FSCB boxes unchecked the output will be considered a Relay Driver will be set up to control standard dimming panels. Remember each relay driver controls twenty-four relays. If an Elegance system had to interface two 48 relay panels 4 relay driver outputs would be required to control the 96 relays. Also, checking the LVRB or FSCB option causes the Load Editing window to change. Since LVRB’s are not dimmable the dimming options are removed from the load editing screen. Since 16 relays are available per LVRB only 16 loads show up when a relay driver is designated as a LVRB. Likewise if FSCB is checked only FSCB settings are shown. To begin editing a load simply select the correct relay panel output and double-click on the desired load. This will allow you to move on to editing the parameters of the load.
3.2.3 Edit Load Screen

After choosing a load to edit the programmer can begin configuring the particular load. As mentioned in the previously there are three types of Edit Load screens. Each one is shown below:

Each of these windows have several features in common. The common features include All On, All Off, Vacation, and Control ON/OFF. You can also set the Preset Level which is the level at which the load will operate when turned on.

1. **All ON** - Checking this box adds the load to the All On scene

2. **All Off** - Checking this box adds the load to the All Off scene

3. **Vacation** - Checking this box adds the Vacation Scene. The vacation scene once activated will trigger random loads to simulate activity in the home. **Note: Once the button is pressed to trigger the vacation scene the homeowners have ten minutes to exit the house and use any buttons or controls required. After the ten minute exit time the scene will activate. The scene will only trigger loads between 5:00 p.m. and 12:00 a.m. Once the users return home and press any button the scene will be turned off.**

4. **Control On/Off** - Clicking this command will allow the programmer to turn the load On/Off from the Elegance software. This is useful when testing the load to make sure it is working properly.

If most of the loads you’re programming have similar settings, there is a Global Parameters button that allows settings to be set for all Lighting Loads. For example, most loads on a particular system are dimmers with Soft On and Soft Off engaged. Simply turn the desired features on in the Global settings to make all loads dimmers with Soft On,Off engaged. Now only the lights that are you do...
not want to have these settings have to be changed. **Note:** You must send the settings to the MCP for them to take affect.

**Standard Dimming Panel Controls**

The figure below shows the Load Editing window options for a standard relay driver. These are the options for the 24-, 36-, 48- and 96- Relay panels.

1. **Dimmer**- If the load a dimmable light check this box to enable dimming. (Lights such as Fluorescent, Metal Halide, etc... should not be dimmed).

2. **DimRate**- The amount of time, in seconds, for the light to go from 0-100 % while pushing and holding the button. If the preset level is set to 50% then the time would be half of what you insert as the DimRate.

3. **Soft On/Soft Off**- Enables Soft ON/OFF feature. This feature allows loads to ramp to preset levels.

4. **SoftRate**- The time in seconds, for the light to go from 0 to 100% when a button is tapped. The SoftRate is typically shorter than the DimRate.

5. **All On/All Off**- Whether or not the load is included in the built in All On and All Off scenes.

6. **Vacation and Alarm Flash**- Whether or not the load is included in the built in Vacation or Alarm Scene respectively.

7. **Minimum**- When checked this will cause the load to dim down to a specified Global minimum level before turning off. Used to remove the flicker with electronically dimmed low-voltage lighting.
LVRB Load Controls
If you have checked the LVRB box on the right hand panel of the load screen, you will notice that the middle panel looks a little different than the Standard Relay Panel or FSCB. The settings are described below.

1. Press and Hold- Allows the relay to be held open or closed as long as the button controlling it is held down. When the button is released, the relay will then release to its normal state of open or closed.

2. Toggle- Allow for a button push to either close or open the relay on depending on whether it was wired as normally open or normally closed. Another button press will then toggle the relay to either open or close.

3. Pulse- Allow the relay to stay open or closed for the allotted period set in the dropdown box next to it.

4. All On/All Off- Whether or not the load is included in the built in All On and All Off scenes.

5. Vacation and Alarm Flash- Whether or not the load is included in the built in Vacation or Alarm Scene respectively

6. Control On/Off- Allows the programmer to turn the load on/off directly from the software.

Note: Relays 9-16 can be assigned as Interlocking. These ties the operation of the two relays together. Flip-Flop forces the relays to always have opposite state.
**FSCB Load Controls**
If you checked the FSCB box from the Load Selection screen you will notice that the Edit Load Screen looks different. Below is the screen that you will see.

1. **All On/All Off** - Whether or not the load is included in the built in All On and All Off scenes.

2. **Vacation and Alarm Flash** - Whether or not the load is included in the built in Vacation or Alarm Scene respectively.

3. **Control On/Off** - Allows the programmer to turn the load on/off directly from the software.
3.2.4 Testing Utilities

The left hand side panel of the Loads Screen has some handy tools to make programming go smoothly. The controls are described in the following paragraph.

1. All On 1-24 turns on Loads 1-24 whether they are part of the All On scene or not.
2. All off 1-24 turns off Loads 1-24 whether they are part of the All Off scene or not.
3. All On - Scene 1 activates the built-in All On scene. Only loads that are part of this scene will turn on.
4. All Off - Scene 2 activates the built-in All Off scene. Only loads that are part of this scene will turn off.
5. Inputs shows all inputs that will trigger specific load.
6. The Comm Box shows the user whether or not the programming software is still connected to the MCP. If the box is green, then the unit is connected. If it is red, the unit has lost its connection.
7. If the Blink box is checked, then the current load you are setting up will begin to blink. This is useful when naming lights and you are not sure exactly which loads are which. Check the blink function and then find the load that is blinking and that is the load that you are programming.
8. The monitor function allows you to view which loads are on and off at a glance. If the box is checked, then the right hand panel will display the loads as red or green. If the load is on, the back color of that load will be green. If it is off, the color will be red.
3.3 Input/Switch Configuration Screen

The Switch/Input Configuration Screen is where all of the information regarding the keypad buttons is configured. To access the Inputs Screen from the Main Screen, click on the Inputs Button on the top of the page or press CTRL+I.

The Inputs Screen is divided into three major parts. They include:

1. List of Inputs
2. Input’s Attributes
3. What the input will control (either load or scene).
3.3.1 Active Stars Tab

In order to setup the list of inputs correctly, the active STARS need to be configured first. At the top left hand section of the screen there is a drop down menu used to select active stars. Select all STARS being used by the MCP by clicking on the corresponding letter. **Note: By default the program selects the four stars included in the first Star Chain.**

3.3.2 Input Selection Screen

This section contains tabbed pages listing all twenty-four of the inputs for each active STAR board. Tabs representing STARS A through P are available from the Active STARS menu. Each tab has a bank of rectangular areas that represent the available inputs on each Active STARS. Clicking on one of these rectangles brings up the selected input in the Edit Input Screen. The input being modified will turn from red to yellow. The programmer does not modify anything in this section. This is purely a Read Only Section. All modifications of individual inputs takes place in the middle panel which is described in the next section.
3.3.3 Edit Input Screen

This menu is where all of the modification to inputs takes place. From this screen the programmer can edit the name of the input, switch type, and behavior of the input. To select an input to configure, simply click on the input in the List of Inputs. Once selected the active input will display a yellow box showing that it is being modified. In the window below the user can define the switch’s name, switch type, switch attribute, NO or NC behavior, and if the input shall send out button press information. For most inputs the default values will work just fine. To name the button: enter the name in the text box below Input Name. For troubleshooting purposes it is best to name inputs and loads by physical location then description. (Ex MSTR BATH VANITY LIGHTS)

For CentraLite keypads as well as most contact closure switches the Switch Type is Normal. If a contact device such as a magnetic door sensor is used, select Switch Type: Contact. In the event that the switch is an input from a remote control system or motion detector or a switch controlling a fan, select type Simple. This attribute allows the MCP to ignore long button presses. The Normally Open/Closed function defines the type of switch used. CentraLite keypad buttons are all Normally Open Contact Closure Switches. The Raise Lower option allows a programmer to configure an input to only raise or lower the level of the assigned load or scene. The Third Party Spontaneous Output option enables the system to automatically output ASCII information announcing the button’s press and release status via the Third Party RS-232 ports.

Switch Type: Normal works for most buttons. Contact is used for magnetic contact sensors.

Switch Attribute: Regular- For most keypad buttons. Simple- Ignores long presses. Must be on for Remote Module, Motion Detector inputs, and Fan Speed Buttons.

NO/NC: Define what type of contact closure is used.

Raise/Lower: Assign the button that only operate in one direction. (Ex.: motorized blinds up/down buttons)

3rd Party Output: Allows the MCP to announce status button press and release status to 3rd party ports.
3.3.4 Address Input Screen
This window is used to define what the button or input will control. Inputs can control either individual loads or scenes. By selecting either loads or scenes in this section the drop down menu will change to the according menu.

By clicking on the **GOTO** the program will automatically go to the Load or Scene page to edit the scene or load selected in the above drop down menu.
3.3.5 Button Capture

A useful tool included on this page is the **Button Capture** feature. This feature allows the user to find buttons or inputs by activating this feature and pressing the button five or more times. This feature is useful to find the address of buttons that may have been wired improperly or mislabeled. Also, this tool is extremely useful as a diagnostic tool to determine whether or not a switch is properly installed or is malfunctioning.

To activate this feature click the **Button Capture** button on the bottom left section of the screen or click the **SW Capture** button on the upper toolbar.

Once the **Button Capture** utility begins a new window will appear. This is the window used to identify the switch input.
By pressing any switch five or more times the following message will appear if the switch has not yet been named.

![Set Input Label Window]

After the Switch/Input has been labeled press **OK** to continue using this utility. To exit Button Capture click **Return** on the upper toolbar. The captured input's address will be displayed in the light blue boxes along the bottom of the window. The screen shows the loads controlled by the particular input.
3.4 Scenes Configuration Page

As stated in the introduction a scene is a preprogrammed scenario that when executed activates desired loads and sets them to predetermined levels. For example, a Good Morning scene is desired. The scene should be programmed to turn on the Master Bedroom lights, then turn on the Hallway lights, and finally turn on the Kitchen Lights. This is easily achievable in the Scenes Configuration page. The Scenes page is accessible by clicking on the Scenes button on the Main Screen. Remember to Save your work frequently while programming.

3.4.1 Making a New Scene

To make a new scene click the Add New Scene button then type in the appropriate title into the Current Scene Name box.
3.4.2 Add Loads to a Scene

Next the loads that are to be included in the scene must be selected. This can be done on the right-hand side window. Find the desired loads on the Include Loads menu. Then click on each desired load so that they show up in the Set Load window.

Notice that selected loads become green in color in the Include Loads window, while the load currently in the Set Load window is purple. It is much easier to develop scenes once all loads and inputs have been named and configured. Notice in the figure below how a scene was created after all loads had been named.
3.4.3 Editing Loads in a Scene

Once the Loads have been selected it is time to set the levels and fade rate for each load. Select the load to program by clicking on its name in the Set Loads menu. Once the desired Load is purple you can use the Set Load parameter screen to program each load.

![Set Load Parameter Screen]

To set the dim level of the light, you need to drag the slider to the desired level. If the load is not a dimmer, you can only drag it to 0% and 100%. If you want a load to go off in a scene, then this level needs to be set at 0%.

The rate is the amount of time that the load takes to go to 100%. Zero seconds is default, and that is set to turn the load on instantly.

There are three buttons at the bottom of this panel. These include:

1. **Set All** - The Set All button will set every load you have included in the scene to the properties of the current load.

2. **Select All** - The Select All button will include every load on the system in this current scene.

3. **Deselect All** - The Deselect All button will take out every load that is included in the current scene.
You can quickly give loads within a scene the same attributes by using the transport tool. To do this, simply left-click anywhere within the purple Load Editing window and drag the cursor onto each load that requires that particular setting. As the cursor moves across the screen it turns to an airplane symbol.
3.4.4 Triggered Scenes

Every scene has the capability of triggering other scenes stored within the MCP. A handy use of triggered scenes is to trigger the same scene off after a predetermined amount of time. You would simply program a scene that turned the desired loads on and include a triggered scene that turns the same lights off after the desired amount of time. Along the bottom left side of the screen is a yellow window used to control triggered scenes.

To add a triggered scene simply select a pre-existing scene from the drop down Scene to Trigger menu then click Add Scene. All of the triggered scenes will be displayed in the right-hand box. The programmer can set the amount of time to wait before a scene is triggered. The time is set with drop down menus for hour, minutes, and seconds. Triggered scenes can be armed or disabled using the On/Off radio buttons.

Note: Be careful with triggered scenes that you do not create a triggered scene loop that would cause loads to turn on and off indefinitely.
3.4.5 Special Scenes

Within the Select Scene menu are three options for ASCII, UPB, or Protected Scenes. Protected scenes have the special property that once activated all loads involved with the scene are locked in place until the scene is deactivated. This would be useful in a party situation where the homeowner wanted to engage an entertainment scene that locked down all loads in the Party scene.

Whenever ASCII or UPB are checked the Set Load menu will change. The ASCII option is used whenever a programmer desires to output a specific ASCII string via RS-232 ports 2 or 3. The window has the following options.

Whenever the UPB option is selected a new menu will appear. This menu contains a special application that will configure strings for the Universal Powerline Bus. The programmer can use UPB scenes to control lights on a UPB system through the Elegance third party ports.
3.4.6 Scenes Page Tools

On the left hand side of the screen, there are some useful controls that can help when testing scenes.

1. Scene On/Scene Off buttons allow the user to test the scene he just created. **Note: to be able to use this function, you must first send the scene information to the unit. This can be done by clicking the "Send" button to send all of the scenes or the "Send 1" button which only sends the current scene.**

2. All On and All Off buttons allow the user to quickly run the "All On and All Off" scenes with a click of the mouse.

3. The Assigned Inputs is similar to the one on the Loads Screen. This box allows the user to see which buttons are assigned to which scenes. There can be multiple buttons assigned to one scene.

4. Comm-Displays the communication status between PC and MCP

5. Loads Available-Show the amount of loads this scene can accommodate.
3.5 Display Screen

The Display Screen allows the user to interactively monitor the entire system with one screen. Each Relay panel is represented by a column. When the software is connected to the system, the loads that are off will be red while the loads that are on will be highlighted in green. Users can turn on and off loads from this page by simply clicking the box representing each load. Also the programmer can turn scenes on and off and set the system time from this screen.

To turn on a load simply click on the label that represents the load. The load should be displayed as a green box if activated. If you are not using every relay driver output on the MCP you can change the amount of relay drivers shown on this screen. To change the amount of relay drivers shown click the Relay Panels tab on the upper left of the screen. From this menu the user can define how many relay drivers should be displayed on this screen. Also the loads displayed can be sorted either numerically or alphabetically from the Sort Menu. The clock settings on the bottom left section of the screen can be used to test timed events. The testing procedure will be discussed in detail in section 3.8.4 of this manual.
3.6 Clock Configuration Screen

The Clock Configuration Screen is a place where the Elegance's internal clock can be retrieved and modified. The Clock Configuration screen is accessed by clicking the Clock Icon on the Main Page or pressing CTRL+C while on the Main Screen.

There are five major functions of the Clock Screen.

1. Get Current Elegance Time

2. Set Elegance Time to System Time- this will set the internal clock of the Elegance MCP to the System Clock of your PC.

3. Timed Events - this will open up the Timed Events Screen which will be discussed in section 3.8 of this manual.

4. Astronomical Clock Setup- this will open up the Astronomical Setup Screen which will be discussed in section 3.7 of this manual.

5. Set Elegance Time and Date- this will allow you to manually set the time and date of the internal clock of the Elegance MCP. To do this, click on the correct date in the calendar and type in the correct time. Then click the Set Elegance Time and Date button.

6. Click the OK button to return to the Main Screen.
3.7 Astronomical Clock Screen

The Astronomical Clock Screen can be viewed by selecting the Clock button on the main screen and then selecting Astronomical Setup.

![Astronomical Setup Screenshot]

To Setup the Astronomical Clock:

1. Select the city that is closest to you. If you do not see a city near you, select Custom and then enter the Latitude and Longitude for your city.

2. Click Calculate and the approximate values will appear. Check to see if these look correct. These values are for the first of each month and will be altered by the MCP to determine the exact sunrise and sunset for the particular day. Remember these times are not adjusted for Daylight Savings time, so summer times will be one hour off. However, the actual internal clock will adjust for Daylight Savings time.

3. If the values look correct and you have everything setup correctly including time zone, then click the Send. Click the OK button to return to the Clock Screen.
3.8 Timed Events Screen

The timed events Screen allows for the setup of 50 timed events. A timed event is the activation or deactivation of a Scene with response to a particular time and day. There are two time bases for each timed event.

1. **Absolute Time** - which will trigger a scene at a specific time and day.

2. **Relative to Sunrise/Sunset** - which allows you to base your timed event on sunrise and sunset. For this to work properly, the astronomical clock must be set for your particular city. This was discussed in greater detail in section 3.7 of this manual.

3.8.1 Absolute Time

The image above displays a timed event #1 named **All On Timed Event** which turns the All On scene on everyday of the week in every month at exactly 6:00pm. To name the event type the name in the top right hand box. You can choose which day this event happens by checking the days want the event to occur. You can also choose which month(s) you would like the event to occur. To set the time of the event, simply pick the hour and minutes in the corresponding dropdown menus. (This time is in 24 hour format.) When completed, you may hit the **Send** button the send the timed events over to the MCP. **Note: This send will also send all Scene information to the MCP.** The **Send button on the Scenes Screen will also send all timed event information.**
3.8.2 Relative to Sunrise/Sunset

The above settings are properties to setup a timed event relative to Sunset. To setup a timed event relative to sunset or sunrise, click the Relative to Sunrise/Sunset radio button. This will make the Before/After and Sunrise/Sunset options visible. You next need to determine whether you want to set the event for before or after sunrise or sunset. In the above case, the event is set to turn on the All On scene everyday of ever month five minutes before Sunset. After you are sure of all settings, you must click the Send Button to send to the MCP. Note: If you are triggering a Good night or All Off scene you still need to select the Action as Scene On. This means that the scene will be activated thus turning the lights off.
3.8.3 Button Enabled Timed Events

A new feature for Firmware versions 5.7 or higher are button enabled timed events. To set up a button enabled timed event simply check the box for **Allow Button Enable/Disable**.

This will allow the programmer to assign the timed event to a button just like any other scene. To assign the button controlling this event simply select the desired button from the Inputs page and select the **Timed Event** from the bottom of the list.

Make sure you select the event with the format: [Timed] Event Name #xxx. If this is not selected a regular scene will be selected.
### 3.8.4 Testing Timed Events

As mentioned in section 3.5 the Display Page has tools used to test timed events. Each night at midnight the MCP sets up a list of timed events for the next day. These events can only be triggered by the clock once per day. In order to test these events a special button was added that would roll the MCP’s clock past midnight for testing purposes. Below is a picture of the bottom of the Display Page.

![Display Page with Midnight Rollover button](image)

**To test your timed event:**

1. Select the scene from the Scenes drop down menu.
2. Click **Scene On** to make sure the scene behaves properly according to the display page.
3. Click **Scene Off** to disengage the scene.
4. Click the **Midnight Rollover** button.
5. In three boxes to the right of Set Elegance Time to this: enter a time about 10 seconds before the time event is scheduled to occur.
6. Click **Set Elegance Time to this**.
7. Wait and see if your scene operates correctly.
8. If the scene operates correctly repeat process for other timed events.
9. Reset the MCP clock by clicking **Set Elegance Time to System Time**.

**Note:** If testing Button Enabled Timed events the button controlling the event must be pressed to activate the Timed Event.
3.9 Settings Screen

The settings page is accessed from the Main Page by clicking the Settings button. The page is divided into two sections. One section is for desired settings while the other is for current system settings. Once the desired settings are configured the programmer can simply send these to the MCP by clicking Send Desired Settings. To make sure they took effect, click Read Current Settings to retrieve the settings stored in the MCP. Click OK to return to the Main Screen.

The Settings Screen will allow you to set whether or not Daylight Savings time is observed in your location. If it is, then check Enable Daylight Savings Time. The programmer can set how many times the phone must ring before the built in modem will connect. You can also choose to send Carriage Returns after each third party command by selecting Third Party Carriage Return. In firmware versions 5.2 and greater, the Third Party ports baud rate is set by the software and not the DIP switches on the MCP. Also the Minimum Level for loads can be selected from this menu. This level is the minimum threshold for loads with Minimum checked on their configuration screen.
Section 4: Options

On the "Main Page" there is a tab labeled "Options". Within this tab are advanced options for Elegance systems. These options include Multiple MCP settings, 3 Phase Systems, and Backup settings.

4.1 Multiple Systems

Some systems require the use of multiple MCP’s. In order to program these systems a separate Elegance file needs to be created for each MCP. Simply name the file "filename_unit1.elg" or "filename_unit2.elg" and so on. To set up the file for multiple MCP’s just click on the "Multiple Systems" label. This will give a new window on the "Main Page" with the "Unit Address". Select the correct address for each unit according to the file name. Also on the Options tab you can select the number of MCP’s for the particular system. Up to four MCP’s can be linked together.

Some special programming considerations need to be made for multiple MCP systems. On the "Inputs Page" inputs from any MCP can now be assigned to control loads or scenes on any MCP. Simply select the unit number and address of the load or scene to be controlled. Note: Load, Input, and Scene names will only be displayed for the selected unit number. E.g. If you are working on the Unit 1 file names will not be displayed for loads, scenes, or inputs on units 2, 3, or 4. If you wish to activate the same scenes on multiple MCP’s you must make that scene a "Global" scene on the "Scene Page." Also the scenes must be the same number on each unit.

4.2 Phase Systems

If your Elegance System needs to be configured for 3-Phase service simply select the 3-Phase label under the Options menu on the "Main Page." This will change the loads page. Now each load will have a check box next to the load name that assigns it to the correct phase leg.
4.3 Backup Save Settings
Every 15 minutes the Elegance software automatically saves your work to a temporary file. Selecting this option from the Options drop down menu allows the user to define the backup file path. Simply create a new path that is convenient to you and click save.
Appendix A
Multi-System Wiring
(Does not apply to Elegance XL)

Overview
This application note describes the configuration of a elegance lighting control system using up to 4 interconnected Master Control Panels (MCPs). An input on any MCP can control a load or scene on any other MCP. Global scenes can be created such that a scene activated on any MCP will activate the same scene number on other MCPS.

Equipment Required
PC (for programming)
Elegance MCP (2+)
RS-232 Cable (Male to Female, DB-9, Straight Thru pins 2, 3 and 5)
RS-232 Cable (Male to Male, Null Modem, Pin 2 to 3, Pin 3 to 2, Pin 5 to 5) One cable between each 2 MCPs

Software Required
Elegance Configuration Software (version 2.60 or later)

Hardware Required
MCPs in a multiple MCP setup are connected using a null modem cable between third party ports. The null modem cables must have male connectors at each end. The MCPs are addressed as UNits 1, 2, 3 and 4. The cables connect as follows:

<table>
<thead>
<tr>
<th>Unit 1</th>
<th>to</th>
<th>Unit 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port: RS232-3</td>
<td>Port: RS232-2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit 2</th>
<th>to</th>
<th>Unit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port: RS232-3</td>
<td>Port: RS232-2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit 3</th>
<th>to</th>
<th>Unit 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port: RS232-3</td>
<td>Port: RS232-2</td>
<td></td>
</tr>
</tbody>
</table>

MCPs must be addressed with the dipswitches on the back of the MCPs. These are the dipswitch settings for the various MCP combinations.
For programming purposes you will plug your PC into the programming port on Unit #1. You can program all units while connected to Unit #1. The MCps should be mounted in the same room.

### Software Setup

You will use the Elegance programming software (version 2.60 or later) to configure MCps. Create a separate ELG file for each MCP. You may wish to include the unit number along with the filename (i.e., jobname1, jobname2, etc.)

Open the ELG file you wish to use for Unit #1. Click on Options. Click on Multiple Systems. You will see that on the main screen there is a choice for Unit Address. Select the appropriate Unit # for this file. Your ELG is now configured for programming a multiple MCP system. Repeat this step for each ELG file.

Click on Inputs from the Menu Bar. You will see that there are four choices for Unit # in the Address Input box. The Unit # for the current ELG file is selected by default. This means that the input on the current MCP will control a Load or Scene on the current MCP. If a different Unit # is selected, the input will control Load or Scene on the selected MCP. Notice that when selecting a Unit # other than the current ELG file cannot access the data on the other Units. You must reference a list and know the appropriate Load or Scene number to program Loads or Scenes from another unit on the current input.

Click on the Scenes button from the Menu Bar. Notice that in the Select Scene box there are additional choices: Global and Local. A Global Scene will be activated if the same Scene # on any other MCP is activated. A Local Scene will not respond when the same Scene # is activated on other MCps. This is a convenient way to make system wide scenes such as ALL ON, ALL OFF, ENTERTAIN, and GOODNIGHT.

<table>
<thead>
<tr>
<th>2 MCP System:</th>
<th>Dipswitch Settings:</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP 1:</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>MCP 2:</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 MCP System:</th>
<th>Dipswitch Settings:</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP 1:</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>MCP 2:</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>MCP 3:</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 MCP System:</th>
<th>Dipswitch Settings:</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP 1:</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>MCP 2:</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>MCP 3:</td>
<td></td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>MCP 4:</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
</tbody>
</table>
Appendix B
Shade Control

Interfacing Low Voltage Window Shades
Low voltage DC motorized shades can be controlled by CentraLite's LVRB. Using the interlocking relays (9-16) on a LVRB will allow the user to control up to 4 sets of shades drawing no more than 3 Amps. The amount of shades per output depends on the current draw of the specific shades. Each LVRB has 16 relays eight NO and eight NO/NC relays. For this setup we must use relays 9-16 because they have the Interlocking feature which allows us to control the motor by reversing polarity to the motor.

To interface the motorized shades with our system follow the connection diagram shown below:

![Connection Diagram](image)

The label J3 corresponds to the label on the actual LVRB. This represents outputs 9 and 10 in the software. If you want to drive a pair of blinds in this arrangement just wire the two motors in parallel. Repeat this process for the other blinds on J4, J5, and J6.

The shades work by the following rules:

<table>
<thead>
<tr>
<th>Relay 1 Level</th>
<th>Relay 2 Level</th>
<th>Motor Terminal</th>
<th>Motor Terminal</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
<td>-</td>
<td>-</td>
<td>N/A</td>
</tr>
<tr>
<td>0%</td>
<td>100%</td>
<td>-</td>
<td>+</td>
<td>Down</td>
</tr>
<tr>
<td>100%</td>
<td>0%</td>
<td>+</td>
<td>-</td>
<td>Up</td>
</tr>
<tr>
<td>100%</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>N/A</td>
</tr>
</tbody>
</table>
To program the shades in the software go to the loads page and on the corresponding relay driver tab assign all channels 9-16 as "Interlocking" and "Flip Flop". This will guarantee that you can not short the motor when pressing UP and DOWN simultaneously.

Next, make a "Shades Up" scene by including all of the relays you want to involve in that particular scene. For example include 9 and 10 of LVRB 1. Then set 9 to 100% and 10 to 0%. This will cause the motor to go up. To create a "Shades Down" scene include the same loads then swap the levels to 9 at 0% and 10 to 100%. This will swap the polarity of the signal driving the shades causing it to go down.

Then assign these scenes to buttons as you like. Depending on how you wire you system you could make buttons to control each shade individually and have a master scene that would make all of the shades go up or down accordingly. Also once you have your scenes for up and down configured you could assign the loads in the "Shades UP/DOWN" scenes to pulse for a specific amount of time to raise or lower the desired amount.
Appendix C
Third Party Protocol

Communications between a Third-Party Device and the ELEGANCE

The ELEGANCE can communicate with a third-party device through two RS232 interfaces (channel B of DUART1 using connector RS232-2, and channel A of DUART2 using connector RS232-3). Communications parameters for connector RS232-3 are either 19.2 K baud (if DIP Switch 3 is OFF) or 9.6 K baud (if DIP Switch 3 is ON), 8 data bits, 1 stop bit and no parity. Communications parameters for connector RS232-2 are either 19.2 K baud (if DIP Switch 4 is OFF) or 9.6 K baud (if DIP Switch 4 is ON), 8 data bits, 1 stop bit and no parity. This communications link may be used by a third-party device to either send some control commands or receive some status information regarding both loads and scenes. The Elegance always acts as a slave to a third-party device, i.e., the Elegance always responds to commands from third-party device. In addition, the Elegance can send an ASCII string to both third-party channels indicating when a switch is pressed and when that switch is released (if that switch is programmed to do so). The ASCII string format “Psnnn” for a pressed switch, and “Rsnnn” for a released switch, where s is a 1-digit ASCII number specifying ELITE board number (O for a single-system, and from 1 to 4 for a multi-system), and nnn is a 3-digit ASCII number specifying that switch number (from 001 to 384). In a single-system configuration (one ELegance board), up two third-party can be connected through connectors RS232-2 and RS232-3 on that Elegance board. However, in a multi-system configuration (two, three or four ELegance boards connected together), up to two third-party devices can be connected through connector RS232-2 on the first Elegance board, and connector RS232-3 on the last Elegance board in the chain.

Communications between a third-party device and the Elegance in a single-system (one Elegance board) or a multi-system (two, three, or four Elegance boards connected together, configuration is always using ASCII code (both directions). All commands are started with ASCII “^” (ASCII code $5E) followed by a 1-byte command code. For a single-system configuration, command codes are upper-case ASCII “A” - “L” only. However, for a multi-system configuration, command codes are lower-case ASCII “a” - “l” only. The command may be followed by a number of ASCII digits that varies according to the command used. The following table shows the currently supported commands in a single-system configuration, their formats as well as response expected if any. Note that each response may be followed (if enabled in customer options) by an ASCII carriage return byte (ASCII code $0D).

<table>
<thead>
<tr>
<th>Command Code and Format</th>
<th>Meaning</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>^Annn</td>
<td>Activate load/relay number nnn.</td>
<td>None</td>
</tr>
<tr>
<td>^Bnnn</td>
<td>Deactivate load/relay number nnn.</td>
<td>None</td>
</tr>
<tr>
<td>^Cnnn</td>
<td>Activate scene number nnn.</td>
<td>None</td>
</tr>
<tr>
<td>^Dnnn</td>
<td>Deactivate scene number nnn.</td>
<td>None</td>
</tr>
<tr>
<td>^Ennnllrr</td>
<td>Activate load/relay number nnn to level ll at rate/pulse width rr.</td>
<td>None</td>
</tr>
</tbody>
</table>
If enable sending a CR after data for a third-party get commands option is chosen (bit #6 of 1st byte in the Customer options is set), then a CR will be sent after data sent as a response to every get command (e.g., ^F, ^G, ^H, and ^K).

The following table shows the currently supported commands in a multi-system configuration, their formats as well as response expected if any.

<table>
<thead>
<tr>
<th>Command Code and Format</th>
<th>Meaning</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>^Fnnn</td>
<td>Get level of load/relay number nnn.</td>
<td>ll</td>
</tr>
<tr>
<td>^G</td>
<td>Get instant ON/OFF status of all loads/relays.</td>
<td>ddd . . d</td>
</tr>
<tr>
<td>^H</td>
<td>Get instant ON/OFF status of all switches</td>
<td>sss . . s</td>
</tr>
<tr>
<td>^Innn</td>
<td>Press switch number nnn</td>
<td>None.</td>
</tr>
<tr>
<td>^Jnnn</td>
<td>Release switch number nnn.</td>
<td>None</td>
</tr>
<tr>
<td>^K</td>
<td>Get instant real-time clock settings</td>
<td>ssmmhhwwddmmyy</td>
</tr>
<tr>
<td>^Lssmmhhwwddmmyy</td>
<td>Set real-time clock settings</td>
<td>None</td>
</tr>
</tbody>
</table>

The table above shows the currently supported commands in a multi-system configuration, their formats as well as response expected if any.

<table>
<thead>
<tr>
<th>Command Code and Format</th>
<th>Meaning</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>^asnnn</td>
<td>Activate load/relay number nnn on system s.</td>
<td>None</td>
</tr>
<tr>
<td>^bsnnn</td>
<td>Deactivate load/relay number nnn on system s.</td>
<td>None</td>
</tr>
<tr>
<td>^csnnn</td>
<td>Activate scene number nnn on system s</td>
<td>None</td>
</tr>
<tr>
<td>^dsnnn</td>
<td>Deactivate scene number nnn on system s</td>
<td>None</td>
</tr>
<tr>
<td>^esnnnllrr</td>
<td>Activate load/relay number nnn to level ll at rate/pulse width rr on system s.</td>
<td>None</td>
</tr>
<tr>
<td>^fsnnn</td>
<td>Get level of load/relay number nnn on system s.</td>
<td>None</td>
</tr>
<tr>
<td>^gs</td>
<td>Get instant ON/OFF status of all loads/relays on system s.</td>
<td>ddd . . d</td>
</tr>
<tr>
<td>^hs</td>
<td>Get instant ON/OFF status of all switches on system s</td>
<td>sss . . s</td>
</tr>
<tr>
<td>^isnnn</td>
<td>Press switch number nnn on system s.</td>
<td>None</td>
</tr>
<tr>
<td>^jsnnn</td>
<td>Release switch number nnn on system s</td>
<td>None</td>
</tr>
<tr>
<td>^ks</td>
<td>Get instant real-time clock settings on system s.</td>
<td>ssmmhhwwddmmyy</td>
</tr>
<tr>
<td>^lssmmhhwwddmmyy</td>
<td>Set real-time clock settings on system s</td>
<td>None.</td>
</tr>
</tbody>
</table>

s is a 1-digit ASCII number specifying Elegance board number (from 1 to 4). nnn is a 3-digit ASCII number specifying either a load/relay number (from 001 to 192), a scene number (from 001 to 256), or a switch number (from 001 to 384). Note that, since an LRVB has only 16 relays, relay numbers range
from 001 to 016 (1st LVRB), 025 to 040 (2nd LVRB), 049 to 064 (3rd LVRB) 073 to 088 (4th LVRB) 097 to 112 (5th LVRB), 121 to 136 (6th LVRB) 145 to 160 (7th LVRB) and 169 to 184 (8th LVRB). ll is a 2-digit ASCII number specifying load/relay level value (from 00 to 99, where 00 is fully OFF, and 99 is fully ON). For a relay in an LVRB, only levels allowed are 00 (OFF) rr is a 2-digit number specifying a code for rate (from 00 to 31) at which a load in an RLYDRV board is activated to the specified level, according to the following table.

<table>
<thead>
<tr>
<th>&quot;rr&quot;</th>
<th>Value</th>
<th>&quot;rr&quot;</th>
<th>Value</th>
<th>&quot;rr&quot;</th>
<th>Value</th>
<th>&quot;rr&quot;</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Immediate</td>
<td>08</td>
<td>9 seconds</td>
<td>16</td>
<td>41 seconds</td>
<td>24</td>
<td>210 seconds</td>
</tr>
<tr>
<td>01</td>
<td>1 second</td>
<td>09</td>
<td>11 seconds</td>
<td>17</td>
<td>49 seconds</td>
<td>25</td>
<td>250 seconds</td>
</tr>
<tr>
<td>02</td>
<td>2 seconds</td>
<td>10</td>
<td>13 seconds</td>
<td>18</td>
<td>60 seconds</td>
<td>26</td>
<td>300 seconds</td>
</tr>
<tr>
<td>03</td>
<td>3 seconds</td>
<td>11</td>
<td>16 seconds</td>
<td>19</td>
<td>75 seconds</td>
<td>27</td>
<td>380 seconds</td>
</tr>
<tr>
<td>04</td>
<td>4 seconds</td>
<td>12</td>
<td>19 seconds</td>
<td>20</td>
<td>90 seconds</td>
<td>28</td>
<td>450 seconds</td>
</tr>
<tr>
<td>05</td>
<td>5 seconds</td>
<td>13</td>
<td>23 seconds</td>
<td>21</td>
<td>110 seconds</td>
<td>29</td>
<td>550 seconds</td>
</tr>
<tr>
<td>06</td>
<td>6 seconds</td>
<td>14</td>
<td>28 seconds</td>
<td>22</td>
<td>140 seconds</td>
<td>30</td>
<td>675 seconds</td>
</tr>
<tr>
<td>07</td>
<td>7 seconds</td>
<td>15</td>
<td>34 seconds</td>
<td>23</td>
<td>175 seconds</td>
<td>31</td>
<td>800 seconds</td>
</tr>
</tbody>
</table>

rr is a 2-digit number specifying a code for rate (from 00 to 31) at which a relay in an LVRB board is activated for a specified pulse width, according to the following table.

<table>
<thead>
<tr>
<th>&quot;rr&quot;</th>
<th>Value</th>
<th>&quot;rr&quot;</th>
<th>Value</th>
<th>&quot;rr&quot;</th>
<th>Value</th>
<th>&quot;rr&quot;</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Indefinite</td>
<td>08</td>
<td>3.00 seconds</td>
<td>16</td>
<td>14.0 seconds</td>
<td>24</td>
<td>45.0 seconds</td>
</tr>
<tr>
<td>01</td>
<td>0.25 seconds</td>
<td>09</td>
<td>4.00 seconds</td>
<td>17</td>
<td>16.0 seconds</td>
<td>25</td>
<td>50.0 seconds</td>
</tr>
<tr>
<td>02</td>
<td>0.50 seconds</td>
<td>10</td>
<td>5.00 seconds</td>
<td>18</td>
<td>18.0 seconds</td>
<td>26</td>
<td>60.0 seconds</td>
</tr>
<tr>
<td>03</td>
<td>0.75 seconds</td>
<td>11</td>
<td>6.00 seconds</td>
<td>19</td>
<td>20.0 seconds</td>
<td>27</td>
<td>70.0 seconds</td>
</tr>
<tr>
<td>04</td>
<td>1.00 seconds</td>
<td>12</td>
<td>7.00 seconds</td>
<td>20</td>
<td>25.0 seconds</td>
<td>28</td>
<td>80.0 seconds</td>
</tr>
<tr>
<td>05</td>
<td>1.50 seconds</td>
<td>13</td>
<td>8.00 seconds</td>
<td>21</td>
<td>30.0 seconds</td>
<td>29</td>
<td>90.0 seconds</td>
</tr>
<tr>
<td>06</td>
<td>2.00 seconds</td>
<td>14</td>
<td>10.0 seconds</td>
<td>22</td>
<td>35.0 seconds</td>
<td>30</td>
<td>100 seconds</td>
</tr>
<tr>
<td>07</td>
<td>2.50 seconds</td>
<td>15</td>
<td>12.0 seconds</td>
<td>23</td>
<td>40.0 seconds</td>
<td>31</td>
<td>120 seconds</td>
</tr>
</tbody>
</table>

ddd . . d is a 48-digit ASCII hax number, where every 6-digit entry holds the ON/OFF state of 24 loads or 16 relays (0 for OFF and 1 for ON), as follows.
The order of the 8 load entries is as follows:
LD1, LD2, LD3, . . ., LD24 of rRLYDRVR/LVRB 1 (6 digits)
LD1, LD2, LD3, . . ., LD24 of rRLYDRVR/LVRB 2 (6 digits)
. . .
LD1, LD2, LD3, . . ., LD24 of rRLYDRVR/LVRB 8 (6 digits)

Note that for an LRVB, the last 8 bits (most significant 2 digits) are meaningless, since an LVRB board has only 16 relays.

sss . . . s is a 96-digit ASCII hex number, where every 4-digit entry holds the ON/OFF state

<table>
<thead>
<tr>
<th>1st 2 digits (least significant)</th>
<th>bit</th>
<th>0</th>
<th>Load 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bit</td>
<td>1</td>
<td>Load 2</td>
</tr>
<tr>
<td></td>
<td>. .</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bit</td>
<td>7</td>
<td>Load 8</td>
</tr>
<tr>
<td>2nd 2 digits (middle significant)</td>
<td>bit</td>
<td>0</td>
<td>Load 9</td>
</tr>
<tr>
<td></td>
<td>bit</td>
<td>1</td>
<td>Load 10</td>
</tr>
<tr>
<td></td>
<td>. .</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bit</td>
<td>7</td>
<td>Load 16</td>
</tr>
<tr>
<td>3rd 2 digits (most significant)</td>
<td>bit</td>
<td>0</td>
<td>Load 17</td>
</tr>
<tr>
<td></td>
<td>bit</td>
<td>1</td>
<td>Load 18</td>
</tr>
<tr>
<td></td>
<td>. .</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bit</td>
<td>7</td>
<td>Load 24</td>
</tr>
</tbody>
</table>

The order of the 8 load entries is as follows:
LD1, LD2, LD3, . . ., LD24 of rRLYDRVR/LVRB 1 (6 digits)
LD1, LD2, LD3, . . ., LD24 of rRLYDRVR/LVRB 2 (6 digits)
. . .
LD1, LD2, LD3, . . ., LD24 of rRLYDRVR/LVRB 8 (6 digits)

Note that for an LRVB, the last 8 bits (most significant 2 digits) are meaningless, since an LVRB board has only 16 relays.

sss . . . s is a 96-digit ASCII hex number, where every 4-digit entry holds the ON/OFF state
The order of the 24 switch entries is as follows:
SW1 for STARS 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D (4 digits)
SW2 for STARS 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D (4 digits)
... 
SW24 for STARS 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D (4 digits)

Note that any combination for nnn, ll and rr outside the specified ranges will cause the command to be ignored. In addition, command ^Ennnllrr will be ignored if it specifies a level other than 00 or 99, or a transition rate other than 00 for non-dimmer loads.

ssmmhhwwddmmyy are the real time clock settings consisting of 14 bytes (BCD format) as follows:

<table>
<thead>
<tr>
<th>Two Bytes</th>
<th>Contents</th>
<th>BCD Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss</td>
<td>Seconds</td>
<td>00-59</td>
</tr>
<tr>
<td>mm</td>
<td>Minutes</td>
<td>00-59</td>
</tr>
<tr>
<td>hh</td>
<td>Hours (24 hour format)</td>
<td>00-23</td>
</tr>
<tr>
<td>ww</td>
<td>Day of Week (1:Sunday, 2:Monday, ..., 7:Saturday)</td>
<td>01-07</td>
</tr>
<tr>
<td>dd</td>
<td>Date (Day of Month)</td>
<td>01-31</td>
</tr>
<tr>
<td>mm</td>
<td>Month</td>
<td>01-12</td>
</tr>
<tr>
<td>yy</td>
<td>Year</td>
<td>00-99</td>
</tr>
</tbody>
</table>
Hard Wired Product
5 Year Limited Warranty

This Limited Warranty is extended by CentraLite Systems, Inc. (CentraLite) to the original end-user of the accompanying CentraLite product and is transferable upon CentraLite receiving original end-user warranty card information and upon CentraLite receiving new end user warranty information within 30 days from date of property transfer. This Limited Warranty provides 100% parts coverage for defects in materials and workmanship for the product under normal use and service for a period of five (5) years from system start-up. Start-up is defined as the date in which the system is activated by an Authorized CentraLite Installer.

The Limited Warranty period is for five (5) years from the original date of system start-up and there shall be no explicit or implied warranty after the expiration of the warranty period. The Limited Warranty period includes diagnosing problems, and repair or replacement of defective parts. In all cases, at the option of CentraLite, serviceable used parts that are equivalent to new parts in performance may be supplied to replace defective parts. All exchanged parts and products replaced under this warranty will become the property of CentraLite. All replaced parts and products are covered for the duration of the original warranty period.

This Limited Warranty does not extend to any CentraLite product not purchased from CentraLite or from an Authorized CentraLite Dealer or Distributor. This Limited Warranty also does not extend to any product that has been damaged or rendered defective (a) as a result of accident, misuse, or abuse; (b) by operation outside the usage parameters stated in the Product’s User's Guide; (c) by the use of parts not manufactured or sold by CentraLite; (d) by modification of the Product, or (e) as a result of service by anyone other than CentraLite, or an Authorized CentraLite Dealer or Distributor. This Limited Warranty is valid only within the country in which the hardware product was purchased.

CentraLite is not responsible for failure of the product, which results from accident, abuse, misapplication, or alteration of the product, and CentraLite assumes no liability as to consequence of such events under the terms of this warranty. Incidental and consequential damages caused by malfunction, default, or otherwise with respect to the breach of this warranty are not the responsibility of CentraLite.

Excluded from Coverage:
- Abuse, misuse or accident causing damage from:
  1) Use of incorrect line voltage or any electrical damage which results in system failure.
  2) Failure to comply with Installation and Operation Instructions.
  3) Failure to adhere to National Electrical Code and Underwriter's Laboratories codes and guidelines.
  4) Vandalism or acts of civil unrest.
  5) “Acts of God” and other factors beyond the control of CentraLite.
- Replacement or cost of repair of components of equipment external to or incorrectly connected to
  CentraLite product, including:
  1) Security equipment
  2) Audio Visual equipment
  3) Heating, ventilating, and cooling equipment
  4) Personal Computers
  5) Lighting devices
- Evidence of tampering, unauthorized repairs or adjustments
- Failure to contact CentraLite within 30 days of property purchase to transfer remainder of warranty period.
Notes:
Notes: