

ORION
Multiple Area Control System

User's Manual

**System Introduction
and
User's Instructions**

January 1990

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Part 1. System Introduction

General Description

As part of the Pre-Pack Architectural Lighting Control Systems family, the Orion® Multiple-Area Preset Control System makes it possible to create a multi-faceted, dynamic lighting design with a variety of powerful control features and options. By coordinating a large number of zones and scenes, lighting effects can be subtle or dramatic, timed or instantaneous, to produce the desired atmosphere for any environment.

Lighting control with the Orion system offers the following advantages:

- Design flexibility before and after installation
- Ease of installation
- All the functions provided with Versaplex® and Aurora® controls
- Exclusive features and powerful control options
- State-of-the-art dimming control components

Managing the visual environment with the Orion system provides unlimited flexibility to create any lighting effect at any time in any space.

System Components

Wallstation Controls:

Available with various functions and styles as described in the Pre-Pack Design Guide, with additional functions and capabilities intrinsic to the Orion system.

Dimmer Panels:

As described in the Pre-Pack Design Guide, dimmer panels are compact, high-density, convection-cooled dimmer enclosures. Dimming modules housed within the dimming panels are available to control incandescent, low-voltage (magnetic or electronic), tungsten-halogen, fluorescent, compact fluorescent, metal halide, neon, cold cathode, mercury vapor, and sodium vapor lighting sources.

Multiple Lighting Effects (MLE) System Interface:

The MLE system interface communicates with the many wallstations and system accessories to create the desired effects in the spaces controlled.

Applications

The basic applications are:

- Large area, multiple presets
- Multiple areas, multiple presets
- Large partitionable rooms
- Dynamic effects in an architectural environment
- Combinations of the above

The Orion system is designed for use in conference facilities, convention centers, exhibit halls, hotels, museums, residences, display areas, marketing rooms, showrooms, ballrooms, and multi-purpose rooms.

Features, Options, and Capabilities

Time Clock Scene Activation: This component of the Orion system allows for automatic scene activation with an internal timeclock. The timeclock can enable/disable wallstation controls as desired. Not only does the timeclock respond to a regular time-of-day schedule, but it can be adjusted to compensate for variables such as sunrise, sunset, daylight saving time, and leap year. Separate schedules can be provided for weekdays, weekends, and holidays. The timeclock allows for a flexible schedule and design.

Monitor and Keyboard: Although not necessary for operating the Orion system, these components provide easy setup and control of the lighting system. A CRT display provides a clear status report of light levels in all areas. The keyboard and monitor can be removed after initial setup to prevent tampering with preset scenes.

Note: Industry-standard serial communications port with the appropriate software port can be used with an existing computer.

Lighting Flexibility: *Fade time* is the time interval desired for a particular zone (group of lights controlled together) to change from one intensity to another. The time interval may range from 0 to 99 seconds/minutes.

Fade delay is the time interval between the selection of a new intensity for a particular zone and the beginning of that zone's change to the new level. The delay may range from 0 to 99 seconds/minutes.

Intensity is the relative perceived brightness of light, indicated as a percentage of a lamp's maximum potential output. Combining the three variables of fade time, fade delay, and intensity provides numerous lighting control possibilities.

Capacities: The Orion system can control up to 1000 zones, 640 scenes, and 60 areas.

Audiovisual Interface:	This interface allows audiovisual equipment to be operated automatically when the appropriate lighting scene is selected. This provides for complete coordination of the audiovisual equipment and the lighting control system.
Wallstation Controls:	Orion systems are capable of using a variety of wallstation controls, which provide preset scene access and additional lighting adjustments with manual sliders. It is perfect for applications where the lighting must be temporarily changed and then returned to the preset level and schedule. Push-buttons can be used to recall preset scenes and to enable/disable wallstations. Manual sliders provide an extra lighting scene through additional options for special occasions where the preset scenes are not exactly right.
Partitioned Room Control:	The Orion system gives the user complete independent lighting control of each area in partitioned spaces. This gives facilities management the ability to make the most efficient use of partitioned areas, increasing both flexibility and marketability of space. Lighting zones can be reconfigured to reflect different arrangements within the partitionable space, and wallstations can be paralleled to control identical lighting zones from two or more locations. The ORION Assignor™ Control Panel (OACP), placed in the partitionable room, provides easy adjustment of lighting status within partitioned areas. In addition, wallstations can be disabled or enabled from the OACP panel.
MLE System Interface:	The MLE functions as the main control for the entire system, communicating with many wallstations and accessories throughout the areas controlled.
Wireless Remote Control:	The remote control manages four to eight specific preset lighting scenes, which can be selected and will change to their preset levels. It operates within a 50-foot radius of the intended receiver, and includes a manual master slide that can temporarily modify the preset scenes.
Handheld Programmer:	The handheld unit plugs into conveniently located walljacks to access scene configurations within that specific area. It allows the user to create and/or modify preset scenes while standing in the area.
Wallstation Enable/Disable:	This capability provides easy lockout (disabling) of any Orion wallstation. Optional keylock switches are available.
Decorative and Customized Controls:	Standard controls are manufactured in clear, brushed anodized aluminum. Lutron also offers special finishes including brass, bronze, electrolytic, in-laid, anodized black aluminum, polished chrome, 24k gold, and paint. Silkscreening and engraving are also offered.

Field Service Support

In order for you to better understand the technical support and reliability that comes with each Orion system, the following paragraphs provide an overview of field support services.

Before any Orion system is shipped. . .

the system and its controls are fully function tested, regardless of system size or complexity. In addition, Lutron requires that every system successfully complete a five-hour full load "burn-in" before receiving the final okay for shipment.

Once the system has been okayed for shipment. . .

it is sent to the contractor at the job site with appropriate drawings and plans. The contractor then has the necessary pieces to complete the installation. With recent technological breakthroughs, the contractor's job has become much easier with the introduction of four-conductor multiplex wiring between wallstations, control interface, and dimmer panels.

At the job site. . .

Lutron's field support staff checks the electrical wiring between the system's many components, as well as thoroughly checking system performance. They install customer-specified scene and zone labels, which appear on the monitor; set the time clock; and demonstrate the system to the end users. Field Service Engineers will also provide hands-on training for end users.

After the installation. . .

the Orion system is covered by a two-year full warranty. This commitment guarantees Lutron's support to respond to your questions and concerns at any time, for as long as it takes to resolve the problem.

At the end of the warranty period. . .

Lutron offers to its customers the option to purchase, for a nominal fee, a yearly service contract. Under the terms of the service contract, Field Service Engineers will continue to provide full technical support of your Orion system.

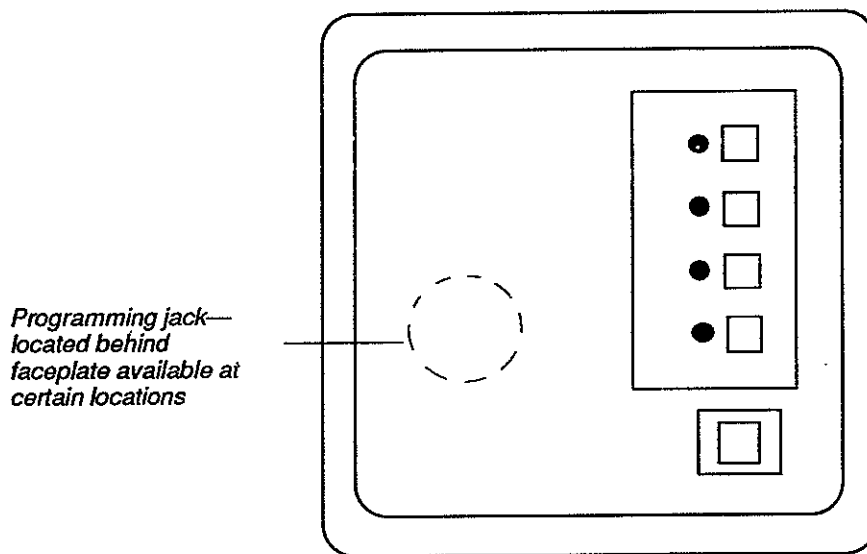
Typical Controls

A wide range of features and options are offered with your Orion lighting control system, some of which are highlighted in the following pages.

Note: Control stations may be enabled/disabled from any number of locations, or as an automatic timeclock function.

VX-4S Controls

VX-4S controls allow selection of customer-defined functions, such as preset lighting levels. Custom controls may incorporate special features, such as programming jacks, and can be ganged in various configurations. For details on custom controls, refer to the control drawings and accompanying notes that are supplied with your system.



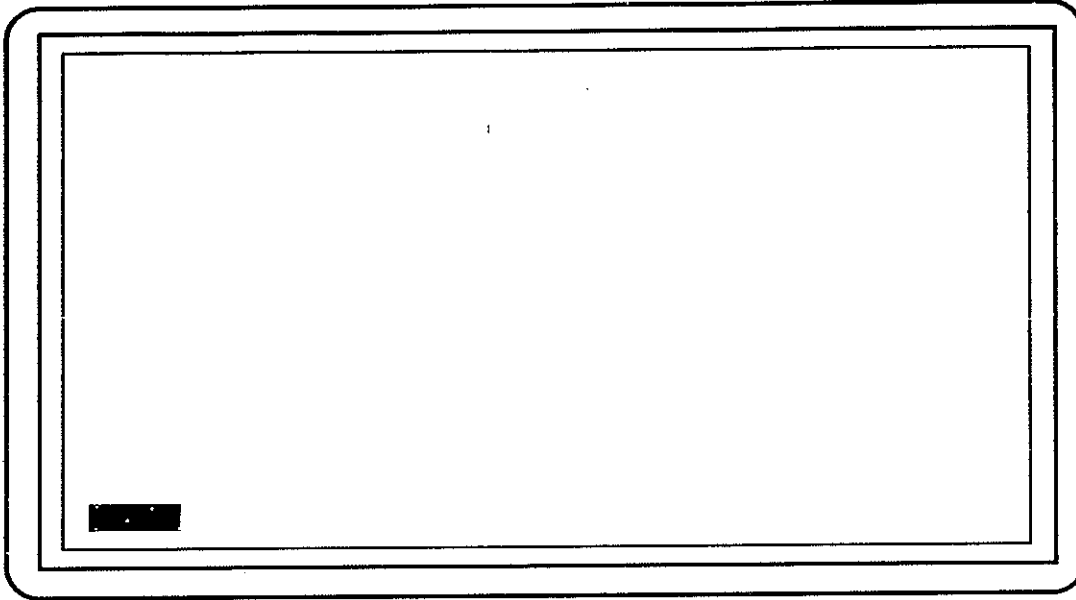
VX-4S Wallstation Control

VC Controls

VC controls combine slider-selected presets and an additional manual scene select button.

OACP

The room map on each OACP is job-specific. The OACP controls and displays the status of the switch corresponding to each partition. The OACP may be used to communicate the status of each partition and, if desired, automatically rezone the partitionable space according to Assignor logic.



OACP Partitioned Room Control—cover closed

Audiovisual Interface

The AV interface accepts momentary or maintained closures from customer-supplied audiovisual equipment. It also provides nine dry-contact pilot indicator closures back to the AV equipment as feedback. The LED indicators provide visual confirmation that the desired action has occurred in the system.

Part 2. Instructions for the User

CAUTION: Only the Orion MLE should be connected to the system monitor computer port. System damage may occur if any other connections are made.

System Startup

System Monitor can be turned off and disconnected from its power source without affecting the Orion system lighting status.

1. Plug the monitor into the Orion programming port using the Lutron-supplied cord.
2. Plug the keyboard connector into the keyboard port on the back of the monitor.
3. Turn on the power switch located on the back of the monitor.
4. When the system self-check is complete, the monitor will display: **VT-220 OK**.
5. When **VT-220 OK** appears on the screen, you are ready to access the first Orion system setup screen.

System Setup

For the initial setup of the Orion lighting control system, certain basic steps must be performed. If the following steps do not result in the appearance of identifiable screens on the monitor, please refer to Appendix A. To begin:

- 1.0 **Access System Status screen by pressing function key F11.**

F11

SYSTEM STATUS		
SYSTEM AREA	SCENE ON NOW	CONTROL TYPE
1. GEN MTG RM 1	Scene 4	Timeclock
2. GEN MTG RM 2	Scene 1	Manual
3. GEN MTG RM 3	Scene 1	Timeclock
4. GEN MTG RM 4	Scene 1	Manual

Enter Area # and Press A to Control Area
Press H to View Help Screen

LUTRON ORION

The System Status screen (above) identifies the areas (names of rooms, public spaces, etc.) controlled by the Orion system, and indicates which lighting scenes are active in those areas and whether the areas are under timeclock or manual control.

1.0.1

If help is needed, press H.

H*elp*

SYSTEM STATUS MODE HELP SCREEN			
COMMAND	ACTION	TYPE	RESULT
A	SELECT AN AREA TO VIEW	11A	AREA 11 STATUS DISPLAYED
H	DISPLAY A HELP SCREEN (AVAILABLE FOR ALL MODES)	H	COMMAND SUMMARY LISTED
F10	WALLSTATION CONTROL MODE	F10 (KEY)	W.S. CONTROL MODE ACCESSED
F11	SYSTEMMODE ACCESSED	F11 (KEY)	SYSTEM STATUS MODE ACCESSED
F12	AREA CONTROL MODE	F12 (KEY)	AREA CONTROL MODE ACCESSED
F13	SCENE PROGRAMMING MODE	F13 (KEY)	SCENE PROG. MODE ACCESSED
F 14	SCHEDULE PROGRAMMING MODE	F14 (KEY)	SCHED. PROG. MODE ACCESSED

****RETURN KEY RETURNS YOU TO THE SYSTEM STATUS MODE****

The System Status Mode Help Screen (above) will appear on the monitor. Press RETURN key to return to System Status screen (see 1.0).

2.0

To make lighting control adjustments in a specific area, select area # and press A.

Example: To program lighting scenes in GEN MTG RM 1, select 1A.

[area #] *A*_{rea}

AREA : 1. GEN MTG RM 1	
NOW IN MANUAL CONTROL PRESS T TO ENTER TIMECLOCK CONTROL	
MANUAL SCENE SELECT MENU	
1. SCENE 1	6. SCENE 5
2. SCENE 2	7. SCENE 6
3. SCENE 3	8. SCENE 7
4. SCENE 4	9. SCENE 8
5. SLIDER SCENE 5	10. SLIDER SCENE 2
ENTER # AND PRESS S TO CHANGE SCENE	

The Area Control Mode screen (above) allows you to view scenes within selected area.

3.0

To make lighting control adjustments for a specific scene within the selected area, press:

F13

AREA : 1. GEN MTG RM 1				
SCENE : 1. SCENE 1				
ZONE #	ZONE NAME	INTENSITY	FADE TIME	FADE DELAY
1	ZONE 1 SH 1	0%.....	5 MIN	0 SEC
2	ZONE 2 SH 1	10%.....	5 SEC	0 SEC
3	ZONE 3 SH 1	30%.....	5 SEC	0 SEC
4	ZONE 4 SH 1	75%.....	10 SEC	0 SEC
5	ZONE 5 SH 1	10%.....	1 SEC	1 SEC
6	ZONE 6 SH 1	80%.....	0 SEC	1 SEC
ONLINE PROGRAMMING				

The Scene Programmer Mode screen (above) will appear on the monitor. Note the area selected on the top line, GEN MTG RM 1. The second line indicates the scene # selected.

Note that the screen indicates online programming mode, which is the default. During online programming, lighting changes occur as they are entered. To change scenes without affecting current lighting (e.g., while rooms are in use), press Function Key F9 to enter offline programming mode.

3.0.1a

If help is needed, press H.

Help

SCENE PROGRAMMER MODE HELP SCREEN			
COMMAND	ACTION	TYPE	RESULT
A	SELECT AREA TO PROGRAM	2A	SELECT AREA 2
S	SELECT SCENE TO PROGRAM	3S	SELECT SCENE 3
Z	SELECT ZONE TO PROGRAM	4Z	SELECT ZONE 4
I	PROGRAM INTENSITY	50I	PROG. ZONE TO 50%
F	PROGRAM FADE TIME	10F	PROG. 10 SEC. FADE TIME
D	PROGRAM FADE DELAY	30D	PROG. 30 SEC. FADE DELAY
M	TOGGLE MIN./SEC. MODE	M	USE BEFORE F O R D COMMAND
** TYPE P TO VIEW OTHER PAGE OF THIS HELP SCREEN**			
** RETURN KEY RETURNS YOU TO SCENE PROGRAMMER MODE **			

The Scene Programmer Mode Help Screen 1 (above) will appear on the monitor. (Help Screen 2 is illustrated on the next page.)

3.0.1b

Press P to view the other page of this help screen.

P_{age}

Press RETURN key to return to Scene Programmer Mode screen (3.0).

SCENE PROGRAMMER MODE HELP SCREEN			
COMMAND	ACTION	TYPE	RESULT
SPACE BAR	SELECT NEXT ZONE	SPACE BAR	NEXT ZONE HIGHLIGHTED
R	REPEAT LAST COMMAND	4R	PROG. ZONE 4 WITH PREV. COMMAND
C	COPY CURRENT ZONE	3C	COPY CURRENT ZONE TO ZONE 3
T	SET UP THRU FUNCTION	6T	CURRENT ZONE THRU ZONE 6
X	FLASH THE CURRENT ZONE	X	ZONE FLASHED 0%-99%
UP-ARROW	RAISE CURRENT INTENSITY	UP-ARROW	RAISE INTENSITY 5%
DN-ARROW	LOWER CURRENT INTENSITY	DN-ARROW	LOWER INTENSITY 5%
TYPE P TO VIEW THE OTHER PAGE OF THIS HELP SCREEN			
RETURN KEY RETURNS YOU TO SCENE PROGRAMMER MODE			

Scene Programmer Mode Help Screen 2

3.1

To change the scene, select the scene # and press S.

Example: You are in Scene 1 of GEN MTG RM 1. You want to adjust the lighting of Scene 2. Press 2S.

[scene #] S_{cene}

3.2

Basic Steps for Programming Zones

3.2.1

To change the lighting control characteristics in a zone, select zone # and press Z.

[zone #] Z_{one}

3.2.1a

To identify the current zone of lights in the space, press X

X

3.2.2

Intensity Level Adjustment

To set (program) light intensity level for the selected zone, select the desired light level (number selected between 0-99 indicates percentage of light output desired) and press I.

[light level #] I_{ntensity}

To increase or decrease intensity level 5%, press up or down directional arrow on keyboard. (Changes in intensity level will be reflected in 5% increments on the monitor.)

AREA : 1. GEN MTG RM 1				
SCENE : 1. SCENE 1				
ZONE #	ZONE NAME	INTENSITY	FADE TIME	FADE DELAY
1	ZONE 1 SH 1	0%.....	5 MIN	0 SEC
2	ZONE 2 SH	10%.....	5 SEC	0 SEC
3	ZONE 3 SH 1	30%.....	5 SEC	0 SEC
4	ZONE 4 SH 1	75%.....	10 SEC	0 SEC
5	ZONE 5 SH 1	10 %.....	1 SEC	1 SEC
6	ZONE 6 SH 1	80%.....	0 SEC	1 SEC
ONLINE PROGRAMMING				

On the Scene Programmer Mode screen (above), the intensity, fade time, and fade delay variables are displayed for each zone in the scene.

3.2.3. Fade Time Adjustment of Selected Zone

To set the fade time in seconds, select number of seconds (0-99) and press F.

[# of seconds] F

To set the fade time in minutes, select # of minutes (0-99) and press MF.

[# of minutes] MF

3.2.4. Fade Delay Adjustment of Selected Zone

To set the fade delay in seconds, select # of seconds (0-99) and press D.

[# of seconds] D

To set the fade delay in minutes, select # of minutes (0-99) and press MD.

[# of minutes] MD

3.3. Programming Special Zone Characteristics

3.3.1 To provide variable intensity control for a desired zone, press CTRL V. This transfers control of the intensity level of this zone from the preset level to the level of the manual slider (located on the wallstation) for that zone.

CTRL V_{variable}

When the scene is selected, the light level for this particular zone will fade to the level set by the current position of the slider.

3.3.2 To maintain the intensity level of the zone in the previously selected scene, press CTRL U.

CTRL U_{unaffected}

When changing from scene to scene, the light level of this particular zone will be unaffected.

3.3.3 To provide a subtle transition when moving from "off" (0% light) and various light levels (when changing scenes), press CTRL O.

CTRL O_{ff}

When programmed to go to "off," the light level will fade to zero intensity when the scene is selected.using the fade time and fade delay. Then the light level reaches zero intensity, the air gap relay at the dimming module will open. When the next scene is selected, the light level of this particular zone will increase in intensity to the preset level according to the fade time and fade delay assigned to the zone.

3.4 Convenient Programming Options for Zones

3.4.1 To repeat a single lighting control characteristic, it must be the last characteristic assigned to the selected zone. Select the additional zone # and press R.

[additional zone #] R_{ep}eat

AREA : 1. GEN MTG RM 1				
SCENE : 1. SCENE 1				
ZONE #	ZONE NAME	INTENSITY	FADE TIME	FADE DELAY
1	ZONE 1 SH 1	0%.....	5 MIN	0 SEC
2	ZONE 2 SH	10%.....	5 SEC	0 SEC
3	ZONE 3 SH 1	30%.....	5 SEC	0 SEC
4	ZONE 4 SH 1	75%.....	10 SEC	0 SEC
5	ZONE 5 SH 1	10 %.....	1 SEC	1 SEC
6	ZONE 6 SH 1	80%.....	0 SEC	1 SEC
ONLINE PROGRAMMING				

Example: You are in Zone 1 of Scene 1 of GEN MTG RM 1. After programming Zone 1 with a five-minute fade time, you want to repeat this fade time for Zone 5. To do this, select 5R.

3.4.2 To copy all of the lighting control characteristics of the selected zone to a second zone, select the second zone # and press C.

[second zone #] C_{opy}

Example: You are in Zone 1 of Scene 1 of GEN MTG RM 1. To copy the characteristics of Zone 1 to Zones 3, select 3C.

3.4.3 To copy all of the lighting control characteristics to a group of zones in sequence following the selected zone, select the final zone # to be programmed and press T.

[final zone #] T_{hrough}

Example: You are in Zone 1 of Scene 1 of GEN MTG RM 1. To copy the characteristics of Zone 1 to Zones 2 through 4, select 4T.

3.5 To select the next zone for programming of lighting control adjustments, press the space bar. (Repeat steps 3.2-3.4 as needed.)

Return to 3.1 to program other scenes within the area selected.

4.0

Once scenes have been set, press area # and letter A.

[area #] *A*_{rea}

AREA : 1. GEN MTG RM 1

NOW IN TIMECLOCK CONTROL PRESS M TO LEAVE TIMECLOCK CONTROL

9:10 AM THURSDAY 01/11/90

1. SCENE 1	7. SCENE 6
2. SCENE 2	8. SCENE 7
3. SCENE 3	9. SCENE 8
4. SCENE 4	10. SLIDER SCENE 2
5. SCENE 5	11. OFF
6. SCENE 6	12. SCENE 9

NEXT EVENT
10:00 AM. ENABLE WS #1

ENTER # AND PRESS S TO CHANGE SCENE PRESS P FOR MORE SCENES

The Area Control Mode screen (above) indicates if the area is controlled manually or by the timeclock.

4.1

If area is to be controlled manually (and screen indicates the area is presently in timeclock control), press M to deactivate the timeclock.

M_{anual}

4.2

If area is to be controlled by the timeclock (and screen indicates the area is presently in manual control), press T to activate the timeclock.

T_{imeclock}

Note: To ensure that lighting status is maintained according to the schedule established for timeclock control, be sure to deactivate wallstations in the area.

4.3

To establish the timeclock control schedule for this area, select function key F14.

F14

TIMECLOCK PROGRAMMING: 4-THURSDAY		
AREA : 1- GEN MTG RM 1		
EVENT#	TIME	EVENT
1	4:10 AFTER SUNRISE	2 : SCENE 2
2	1:00 BEFORE SUNSET	4 : SCENE 4
3	1:00 A.M.	DISABLE WS #2
4	8:05 A.M.	1: SCENE 1
5	9:00 A.M.	10 : SLIDER SCENE
6	10:00 A.M.	ENABLE WS #1
7	3:00 P.M.	2 : SCENE 2

The Timeclock Programming screen (above) will appear on the monitor with the operating schedule # and schedule name displayed. In this case, schedule #4 (Thursday) is shown. Note the area selected on second line - GEN MTG RM 1. The timeclock schedule, consisting of events listed in chronological order, is displayed on the screen.

Timeclock Schedules :
Schedules 1-7 = Monday-Sunday

4.3.1

If help is needed, press H.

Help

SCHEDULE PROGRAMMER MODE HELP SCREEN			
COMMAND	ACTION	TYPE	RESULT
P	PROGRAM P.M. EVENT	525P	EVENT AT 5:25 P.M.
Q	DELETE HIGHLIGHTED EVENT	Q	EVENT DELETED, SCHED. DISPLAYED
X	CHANGE EVENT (KEEP TIME)	X	ORION AWAITS NEW EVENT
C	COPY CURRENT SCHEDULE	C	SET UP COPY FUNCTION
		THEN. 6S	COPY CUR. SCHED. TO SCHED. 6
M	ERASE ENTIRE SCHEDULE	M	SURE??.IF YES, TYPE Y
AFTER ENTERING TIME OF EVENT, ORION AWAITS 1 OF 3 COMMANDS.			
S	SELECT A SCENE	4S	SELECT SCENE 4
E	ENABLE A WALLSTATION	5E	ENABLE WALLSTATION 5
D	DISABLE A WALLSTATION	6D	DISABLE WALLSTATION 6
TYPE P TO VIEW THE OTHER PAGE OF THIS HELP SCREEN			
RETURN KEY RETURNS YOU TO THE SCHEDULE PROGRAM MODE			

The Schedule Programmer Mode Help Screens (screen 1 above and screen 2 on the next page) will appear on the monitor.

4.3.1a

Press P to view the other page of this help screen.

Page

SCHEDULE PROGRAMMER MODE HELP SCREEN			
COMMAND	ACTION	TYPE	RESULT
Y	ACCESS CALENDAR PROGRAMMER	Y	CALENDAR PROG. DISPLAYED
S	SELECT A SCHEDULE	7S	SELECT SCHEDULE 7
A	SELECT AREA TO PROGRAM	2A	SELECT AREA 2
A	PROGRAM AM. EVENT	115A	EVENT AT 1:15 A.M.
E	HIGHLIGHT EXISTING EVENT	2E	HIGHLIGHT EVENT 2
-S	PROGRAM PRE-SUNSET EVENT	015-S	15 MIN. BEFORE SUNSET
+S	PROGRAM POST-SUNSET EVENT	100+S	1 HOUR AFTER SUNSET
-R	PROGRAM PRE-SUNRISE EVENT	115-R	1 HR. 15 MIN. BEFORE SUNRISE
+R	PROGRAM POST-SUNRISE EVENT	200+R	2 HOURS AFTER SUNRISE

TYPE P TO VIEW THE OTHER PAGE OF THIS HELP SCREEN
 RETURN KEY RETURNS YOU TO THE SCHEDULE PROGRAM MODE

4.3.1b Press return key to return to Timeclock Programmer screen (4.3).

Schedule Programmer Mode Help Screen 2

4.3.2 To change schedule, select desired schedule # and press S.

[schedule #] S_{chedule}

TIMECLOCK PROGRAMMING: 4-THURSDAY		
AREA : 1- GEN MTG RM 1		
EVENT#	TIME	EVENT
1	4:10 AFTER SUNRISE	2 : SCENE 2
2	1:00 BEFORE SUNSET	4 : SCENT 4
3	1:00 A.M.	DISABLE WS #2
4	8:05 A.M.	1: SCENE 1
5	9:00 A.M.	10 : SLIDER SCENE
6	10:00 A.M.	ENABLE WS #1
7	3:00 P.M.	2 : SCENE 2

Example: Schedule #4 (Thursday) is shown but you want to make changes to Schedule #6 (Saturday). Press 6S.

4.3.3 Setting time of event (once time entered, go to 4.3.4)

Key to Setting Event Times	
A = A.M.	+ = After
P = P.M.	R = Sunrise
- = Before	S = Sunset

4.3.3(cont.)

To enter a morning event/time into the currently displayed schedule, select time and press A.

[time] A.M.

TIMECLOCK PROGRAMMING: 4-THURSDAY		
AREA : 1- GEN MTG RM 1		
EVENT#	TIME	EVENT
1	4:10 AFTER SUNRISE	2 : SCENE 2
2	1:00 BEFORE SUNSET	4 : SCENT 4
3	1:00 A.M.	DISABLE WS #2
4	8:05 A.M.	1: SCENE 1
5	9:00 A.M.	10 : SLIDER SCENE
6	10:00 A.M.	ENABLE WS #1

Example:

To enter an event at 9:15AM, select 915A.

To enter an evening event/time into the currently displayed schedule, select time and press P.

[time] P.M.

Example:

To enter an event at 10:30PM, select 1030P.

To enter a pre-sunrise event/time into the currently displayed schedule, select number of hours (no greater than 2) and minutes (no greater than 59) prior to sunrise and press -R.

[# of hours, minutes] -R

Example:

To enter an event 45 minutes before sunrise, select 45-R.

To enter a post-sunrise event/time into the currently displayed schedule, select number of hours (no greater than 2) and minutes (no greater than 59) after sunrise and press +R.

[# of hours, minutes] +R

Example:

To enter an event 2 hours and 35 minutes after sunrise, select 235+R.

To enter pre-sunset event/time into the currently displayed schedule, select number of hours (no greater than 2) and minutes (no greater than 59) prior to sunset and press -S.

[# of hours, minutes] -S

Example: To enter an event 1 hour and 10 minutes before sunset, select 110-S.

To enter a post-sunset event/time into the currently displayed schedule, select number of hours (no greater than 2) and minutes (no greater than 59) after sunset and press +S.

[# of hours, minutes] +S

Example: To enter an event 2 hours and 5 minutes after sunset, select 205+S.

4.3.4 Program Actual Event After Entering Time of Event

Program a scene to be activated at that time by selecting the scene # and pressing S.

[scene #] S_{cene}

Program a wallstation to be enabled at that time by selecting the wallstation number and pressing E.

[wallstation #] E_{nable}

Program a wallstation to be disabled at that time by selecting the wallstation number and pressing D.

[wallstation #] D_{isable}

4.3.5 Changing or Deleting Existing Event

TIMECLOCK PROGRAMMING: 4-THURSDAY		
AREA : 1- GEN MTG RM 1		
EVENT#	TIME	EVENT
1	4:10 AFTER SUNRISE	2 : SCENE 2
2	1:00 BEFORE SUNSET	4 : SCENT 4
3	1:00 A.M.	DISABLE WS #2
4	8:05 A.M.	1: SCENE 1
5	9:00 A.M.	10 : SLIDER SCENE
6	10:00 A.M.	ENABLE WS #1
7	3:00 P.M.	2 : SCENE 2

On the Timeclock Programmer Mode screen, all the scheduled events are assigned a number.

Highlight the existing event by selecting the event # (listed in chronological order) and pressing E.

[event #] E_{vent}

To delete highlighted event, press Q.

Q

To change highlighted event, press X and program a new event (see 4.3.4)

X

4.4 To access Timeclock Calendar (to assign schedules to calendar days), press Y.

Y_{ear}

For help, press H.

H_{elp}

To return to Schedule Programmer Mode, press R.

R_{eturn}

To set (or reset) timeclock, press T. See Appendix C. for details.

T_{imeclock}

TIMECLOCK CALENDAR: JANUARY 1990						
SUN	MON	TUES	WED	THURS	FRI	SAT
	1	2	3	4	5	6 SPECIAL1
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22 SPECIAL3	23	24	25	26	27
28	29	30	31			

Sample Calendar (above) - When selecting Y, the current month will appear. The following 11 months are accessible (see 4.4.2).

Timeclock Schedules
Schedules 1-7 — Monday-Sunday
Schedules 8-16 — Special 1-8

4.4.1 Months are numbered chronologically. To access the month desired, select month # and press M.

[month #] M_{onth}

Example:
After accessing the calendar by pressing Y, the month of October appears on the screen. However, you wish to program January. To do so, press **1M** (the January Calendar will appear).

4.4.2 Schedules 1-7 are automatically assigned to Monday-Sunday of every month. (Schedule 1 is always assigned to Monday, 2 to Tuesday, etc.) To assign or erase a "Special" Schedule, select the date # (two digits) and press D. The date selected will be highlighted on the calendar.

[date ##] D_{ate}

Example:
In the month of January, you wish to assign a special schedule to January 9th. Press **09D**. January 9th will be highlighted on the calendar.

4.4.3 To assign a "Special" Schedule to the highlighted date select the "Special" Schedule # desired (Special 8-16) and press S. A "Special" Schedule Box with the "Special" Schedule # will appear under the date on the calendar.

[schedule ##] S_{chedule}

Example:
To assign "Special" Schedule 8 to January 9th, press **08S**.

4.4.4 To remove a "Special" Schedule from the highlighted date, press Q. The "Special" Schedule Box will disappear from the highlighted date and the Daily Schedule (Schedule 1-7 for Monday-Sunday) will be reassigned automatically to that date.

Q

4.5 To copy displayed schedule of times/events, press C and then select schedule # and press S. This creates a second schedule with the same sequence of times/events.

C*opy*

[schedule #] S

4.6 To erase the entire schedule displayed, press M. A caution message appears on the monitor stating "Sure?". If you are certain about erasing the schedule, press Y. (This schedule is now permanently blank, though it will remain assigned to dates as programmed. To reprogram the schedule, see 4.3)

M

5.0 To determine wallstation status within the selected area, press function key F10 to access the Wallstation Status screen.

F10

WALLSTATION STATUS		
WALLSTATION #		STATUS
1	SLIDER STATION 1 AREA 1	ENABLED
2	SLIDER STATION 2 AREA 2	ENABLED

TYPE IN WALLSTATION # FOLLOWED BY
E TO ENABLE OR D TO DISABLE WS

Wallstation Status screen

5.1

To change status of wallstation, select wallstation # and press E to enable or D to disable.

Example: To disable Slider Station 1, press 1D.

Note: When area is controlled by timeclock, scenes can be activated by wallstation controls at any time unless wallstation controls have been disabled.

6.0

To select new area, return to System Status Mode Screen by pressing F11 and continue from 2.0.

F11

SYSTEM STATUS		
SYSTEM AREA	SCENE ON NOW	CONTROL TYPE
1. GEN MTG RM 1	Scene 4	Timeclock
2. GEN MTG RM 2	Scene 1	Manual
3. GEN MTG RM 3	Scene 1	Timeclock
4. GEN MTG RM 4	Scene 1	Manual
Enter Area # and Press A to Control Area Press H to View Help Screen		LUTRON ORION

System Status screen

Note: For day-to-day operating instructions, see next page.

System Operation

- 7.0 If area to be controlled is not known, first access the System Status screen by pressing function key F11. Then select the area # desired and press A to access the Area Control Operation Mode

F11

[area #] A_{rea}

- 8.0 Direct access to the Area Control Operation Mode is accomplished by pressing function key F12.

F12

AREA : 1. GEN MTG RM 1	
NOW IN TIMECLOCK CONTROL	PRESS M TO LEAVE TIMECLOCK CONTROL
9:10 AM THURSDAY 01/11/90	
1. SCENE 1	7. SCENE 6
2. SCENE 2	8. SCENE 7
3. SCENE 3	9. SCENE 8
4. SCENE 4	10. SLIDER SCENE 2
5. SCENE 5	11. OFF
6. SCENE 6	12.
ENTER # AND PRESS S TO CHANGE SCENE	

Area Control Mode screen

- 8.1 To change area accessed, select new area # and press letter A.

[area #] A_{rea}

Example: You are in area 1 GEN MTG RM 1 and you wish to work in area 2 GEN MTG RM 2. To do so, press **2A**.

9.0 To operate the Orion system in the area selected, a number of options are available as described in the following steps:

9.0.1 If help is needed, press H.

H*elp*

AREA CONTROL MODE HELP SCREEN			
COMMAND	ACTION	TYPE	RESULT
A	SELECT AREA TO VIEW	5A	AREA 5 DISPLAYED
S	SELECT A LIGHTING SCENE	15S	SCENE 15 SELECTED
M	MANUAL SCENE SELECT ONLY	M	ORION MANUAL SEL. MODE
T	SELECT TIMECLOCK CONTROL	T	ORION TIMECLOCK SEL. MODE
P	VIEW ADDT'L SCENES IN AREA	P	ADDT'L SCENES DISPLAYED

RETURN KEY RETURNS YOU TO THE ORION OPERATING MODE

Area Control Mode Help Screen

9.1 To manually change the active lighting scene in the area, select the desired scene # and press S. The new active scene will be highlighted on the screen.

[scene #] *S*_{cene}

If the area is in the Manual Event Selection Mode, the newly selected scene will remain active until another scene is manually selected.

If the area is in the Timeclock Event Selection Mode, the newly selected scene will remain active until the next scheduled Timeclock Scene Selection occurs.

9.2. To view additional scenes for the area not shown on the Area Control Operating Screen, press P.

P*age*

If there are no additional scenes, the screen will not change.

9.3 If area is to be controlled manually (and screen indicates the area is presently in timeclock control), press M.

M*anual*

While in the Manual Event Selection Mode, the Orion system will ignore any timeclock scheduled events for this area.

9.4 If area is to be controlled by the timeclock (and screen indicates the area is presently being controlled manually), press T.

T*imeclock*

While in the Timeclock Event Schedule Mode, the Orion system will follow the timeclock scheduled event programmed for this area (see 4.3 and following sections). Events can still be manually selected while the area is being controlled by the timeclock. These manually selected events will remain active until a Timeclock Scheduled Event selection occurs.

10.0 To operate the Orion lighting control system in additional areas, go to 7.0.

11.0 To change lighting scene configurations in any area, go to 3.0 (and following sections)

Appendix A. Setup Screens

Specific setup screens will need to be selected in order to run your Orion lighting control system. The total setup process is described in the VT 220 Owner's Manual. Some of the key variables are listed below.

Display Setup Screen

- Values: 80 columns (default)
- Interpret controls (default)
- Auto wrap
- Jump scroll
- Dark text, light screen
- No cursor
- Black cursor (default)

General Setup Screen

- Values: VT 200 mode, 7-bit controls (default)
- User-defined keys unlocked
- Multinational
- Numeric keypad (default)
- Normal cursor keys (default)
- No new line (default)

Communications Setup Screen

- Values: transmit = 9600
- Receiver = transmit (default)
- No XOFF
- 7 bits, no parity
- 2 stop bits
- No local echo
- EIA port, data leads only
- Disconnect 2s delay (default)
- Unlimited transmit

Keyboard Setup Screen

- Values: typewriter keys (default)
- Caps lock (default)
- No auto repeat
- Keyclick (default)
- Margin bell (default)
- Warning bell (default)
- No break
- No auto answerback
- Not concealed (default)

Appendix B. Cleaning Faceplates

Because of their special finish, it is important to clean Orion faceplates carefully. Follow the guidelines below.

Materials Needed

- Soft cloth (e.g., Wipe-all made by Scott Paper)
- Glass cleaner (e.g, Windex)

Procedure

1. Moisten cloth with glass cleaner.
2. Apply glass cleaner to faceplate by wiping cloth from top to bottom of plate. Be sure to wipe cloth up and down with grain of faceplate.

Caution: Do not use abrasive cleaners on these faceplates under any conditions. Abrasive cleaners will scratch surface and can damage any engraving.

Appendix C. Setting Timeclock

To set (or reset) the timeclock, access the Timeclock Setting screen (below) by pressing T while in Timeclock Calendar mode (see 4.4).

SETTING THE TIMECLOCK	
YEAR	_____
MONTH	_____
DATE	_____
DAY OF WEEK	_____
HOURS	_____
MINUTES	_____

prompt

Directions for entering the data in each field are displayed in the *prompt* area at the bottom of the screen .