

SYSTEM ALC3

ARCHITECTURAL LIGHTING CONTROLS OPERATION MANUAL

The microprocessor based ALC3 dimming control system has been engineered specifically for operation by the casual user. ALC3 controls offer many sophisticated functions and can be easily configured to meet the most demanding lighting control requirements.

This user manual will describe basic operations, as well as the many advanced features of the ALC3 architectural lighting controls.

**DILOR ARCHITECTURAL DIMMING SYSTEMS
SYSTEM ALC3 CONTROLS
OPERATING INSTRUCTIONS**

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SLIDER OPERATION

A CONTROL CHANNEL IS A GROUP OF LIGHTS OPERATED BY 1 SLIDER

Moving the slider up increases light intensity

Moving the slider down decreases light intensity

When your dimming system is initially powered up, the LED readout on the control station will revert to the last active preset.

ALC3 control stations use sliders as a means of controlling lighting intensity. To increase lighting levels, simply move the slider "UP", to decrease the lighting intensity, move the slider "DOWN".

For manual control of your lighting scene, simply adjust the remaining sliders to the desired levels.

ALL ON, and ALL OFF

"ALL ON" BRINGS LIGHTS TO FULL BRIGHT

"ALL OFF" FADES LIGHTS TO BLACK"

To bring all your lights to full bright immediately, press the "ALL ON" push-button on the key pad. The display will show "All" to let you know that the "ALL ON" preset has been selected.

Fade your lights to "OFF" by depressing the "ALL OFF" push-button. The display will show two dashes "- -" to indicate the "ALL OFF" function is selected. The channels will fade slowly to dark using the current fade rate.

To make the Lights go off immediately, press "ALL OFF" twice quickly, and the fade rate will be bypassed.

SAVING AND RECALLING PRESETS

A PRESET IS A REPEATABLE LIGHTING SCENE

It is useful to save your lighting scenes so that the same "look" can be recalled time after time. By using presets, instead of adjusting the sliders every time a lighting change is required, you can repeat the settings exactly, time after time, with a simple press of a button.

Your ALC3 control station key pad has 8 preset push-buttons numbered 1 through 8, which offers you the ability to program and recall up to 8 unique lighting scenes. To program a preset, follow these steps.

1. Use the sliders to adjust the channels to the desired levels.
2. When the lighting levels are correct, depress the "SAVE PRESET" push-buttons. The display will show "SP".
3. Press a number between 1 and 8 and the scene will be stored in that number. For example if you want the current light levels in preset 3, depress the "SAVE PRESET" push-buttons, followed by "3"

To recall a preset, simply press the appropriate number and that scene will be recalled. The number of the active preset will be indicated in the LED display.

When you recall a preset, it will fade to its levels slowly (See SETTING FADE TIMES). To make the preset come on immediately, press the push-button twice quickly and the fade rate will be bypassed.

FADE RATES

"A smooth unnoticeable transition" between different lighting levels will occur when a timed fade rate is programmed as part of a preset.

Presets can be set to have 0 seconds fade, or if a preset has a fade rate programmed into it, you can depress that push-button twice quickly to override the fade.

To let you know that a fade is in progress, the "FADE" light on the ALC3 display will flash. When the fade is complete, the light will go out.

SETTING THE FADE TIME

You can set the fade time for any of the presets by using the "SET FADE" feature. Every time a preset is recalled, it will fade in at the rate you have programmed.

There are eight fade times you can select. They are:

1. NO FADE (instant)
2. 3 SECONDS
3. 8 SECONDS
4. 15 SECONDS
5. 45 SECONDS
6. 3 MINUTES
7. 5 MINUTES
8. 15 MINUTES

The standard fade time for all presets is factory set at #2 - 3 seconds.

To set the fade time of the current preset, press the "F", and then the "1" push-button, followed by a number representing the fade time you want. For example if you want to set a fade time for preset 6 to 45 seconds, then you would use the following commands.

1. Press "6" to recall preset 6
2. Press "F", then "1", and the display will show a "t", followed by the current fade time.
3. Press "5", the display will show a "t5" indicating that the fade time for the preset is now # 5, 45 seconds. The display will go back to the standard display after a few seconds.

When you save a preset, it will be given the same fade time as the last preset you selected. The fade time of the last preset you selected will also be used for the "ALL OFF" fade time. (unless "ALL OFF" is depressed twice quickly.)

PRESET PROPORTIONAL MASTER

The ALC3 control panel allows you to proportionally master an entire preset. If the preset you are currently using is just a little too bright, or a little too dim, because of a temporary situation, you can raise or lower the intensity of the entire preset and the proportion between the channels will be maintained.

The next time you depress the current preset button, it will return to its original levels prior to you raising or lowering it.

To fade all the lights up, press "F" then "4". This will increase the intensity of the preset by about 1%- To increase the light levels more, just hold the "4" key until the lights reach the desired level.

To fade all the lights down press "F" then "8". This will decrease the intensity of the preset by about 1%- To decrease the light levels more, just hold the "8" key until the lights reach the desired level.

CHANNEL TAKE CONTROL

The ALC3 control station allows you to "take control" on any of the channels (sliders) even though the intensity of that channel has been programmed into memory. If you find that because of a specific situation that you wish to increase, or decrease the intensity of a group of lights, simply move the slider. Once the slider is moved, the lights will immediately be under control of the slider, and you can change the intensity to the desired setting. The next time that preset push-button is activated, the lights will return to their original programmed level.

LOCKING AND PROTECTING YOUR ALC3 CONTROL STATION

The ALC3 control panel allows you to activate a code which will provide tamper protection for the station.

"LOCK" prevents all actions on ANY STATION in ALL ZONES, except for unlock.

"PROTECT" prevents users from saving presets at ANY STATION in ALL ZONES, but will allow activation of presets and adjustment of sliders.

How to lock your system

To lock the ALC3 station press the following code:

"F", "6", "5174"

Note: After "F", "6" is pressed an "L" will be displayed to indicate you are in locked mode.

The "LOCK" light will illuminate after "5174" is pressed indicating all stations are now locked.

To unlock the stations press "F", "6", "5174" again from any control station, and control will be enabled again to all stations.

How to protect your system

To protect the ALC3 panel, press:

"F", "2", "6283"

Note: After "F", "2" is pressed a "P" will be displayed to indicate you are in protect mode.

The "FADE" light will illuminate solid after "6283" is pressed indicating all stations are now protected.

Once in protect mode the "SAVE PRESET" button will be ignored if pressed. To unprotect the station, press 'F', "2", "6283" and the preset save function will be restored.

***It is possible with the ALC3 system to enable "LOCK" mode over top of the "PROTECT" mode. This allows certain operators to lock and unlock the station, but not change preset settings. This saves the presets protected by an operator while allowing limited functionality to the others users.*

THE SYSTEM ALC3 DISPLAY

The two digit display on the front of the ALC3 control panel is used to inform you of the current status of you lighting displays have been described.

Occasionally a unique display may be noticed. Following is a description of various displays and their meanings.

NORMAL DISPLAYS

The 2 digit main displays can show the following messages:

--	"ALL OFF" has been selected	All	"ALL ON" has been selected
1	Preset 1 selected	2	Preset 2 selected
3	Preset 3 selected	4	Preset 4 selected
5	Preset 5 selected	6	Preset 6 selected
7	Preset 7 selected	8	Preset 8 selected
SP	"SAVE PRESET" selected	F	The F key was pressed
t X	Fade time is set to "X"	L-	Enter Lock passcode
P-	Enter Protect password code	c	Program Mode
b	Bank select (F3) activated	2 X	Preset bank 2 selected
3 X	Preset bank 3 selected	4 X	Preset bank 4 selected
5 X	Preset bank 5 selected	6 X	Preset bank 6 selected

DISPLAY FLASHING

If the main 2 digit display is flashing, you are in program mode.

(See Programming Stations/Sliders Page 12)

FADE AND LOCK LIGHTS

There are two small lights in the front of the LED screen labeled "FADE" and "LOCK".

They have the following meanings:

If the "FADE" light is flashing, then a timed fade is in progress

If the "FADE" light is solidly on, then you are in "PROTECT" mode.

If the "LOCK" light is solidly on, then the ALC3 panel is in "LOCK" mode.

SYSTEM ALC3 EXTENDED PRESETS

The standard ALC3 control system has 8 preset memories. If your control system has been supplied with extra memory, you can access these banks by using the "Bank Select" feature.

The standard ALC3 presets are numbered 1 through 8 and this is know as BANK 1. The optional presets are stored in additional banks, and are configured as follows:

BANK	PRESET NUMBERS	TOTAL QUANTITY OF PRESETS
1	1 TO 8	8
2	21 TO 28	16
3	31 TO 38	24
4	41 TO 48	32
5	51 TO 58	40
6	61 TO 68	48
7	71 TO 78	56
8	81 TO 88	64

To access the expanded memories, you select the appropriate bank of presets. All operations (like preset save, recall, fade rates etc.) will then work in the new bank.

For example, to access presets 21 to 28 you would select bank 2 like this:

1. Press "F" then "3" (Bank Select)
2. The display will show a "b" so you can enter the bank you want.
3. Press "2" to select bank two.
4. Press "1" to recall preset 21. (Bank 2, Preset 1)
5. Press "2" to recall preset 22 etc. etc.

To save presets and fade rates in an extended bank, proceed exactly as described in earlier sections "SAVING AND RECALLING PRESETS" and "FADE RATES".

SYSTEM PROGRAMMING AND CONFIGURATION

In most cases your Dilor dimming system will come pre-configured and pre-programmed. However in some cases the programming details may not have been available or changes are required on-site after installation. This section provides you with the details required in order to make changes or re-configure your system.

BASIC SYSTEM OVERVIEW

The dimming system consists of three main parts:

Control Stations

- The control station is a wall mounted device used to directly control the lighting. All Control stations come with keypads to activate/program pre-sets and some come with sliders to allow individual control of specific lighting.
- Control stations can be programmed to control specific areas (zones) of lighting. A Dilor dimming system can have up to 15 separate lighting zones. Please be aware a lighting zone may also have more than one control station. Control stations in the same zone will operate the same lights and therefore work in parallel.

Dimmers

- The dimmers are the devices mounted in the line voltage section of the dimming panel. They are responsible for the actual 'dimming' of the lights using SSR (Solid State Relay) technology. It is very important to know what lighting circuit each dimmer is connected to, so that you can assign the correct dimmer to the appropriate control station.

Dimmer Control Module

- The Dimmer Control Module (DCM) is the most important part of the dimming system, and is located in the dimming panel. The DCM links the control stations to the dimmers. Based on user input at the control station, the DCM will send signals to the dimmers through it's output ports.

Programming and configuring a Dilor dimming system (Basics)

- Configure electronics in the dimming panel by assigning each DCM card a unique address (Module ID).
- Configure control stations that will operate specific lighting zones by assigning each station a unique address (Station ID). Multiple stations operating the same zone must have the same ID.
- Program each slider to the lighting circuit(s) it is to control by selecting dimmer control outputs on the DCM card. This must be done for each zone.

For step by step instructions please refer to the next section.

ASSIGNING MODULE ID's

- Determine the number of modules you have in your system.
- On each module there is a small rotary switch marked 'NODE ID' and labeled 0-F
- Using a small flat tip screwdriver turn the dial until the arrow points to the address you want to select. Assign the first module as ID '1', the second as ID '2' etc.
- *It does not matter which order you assign ID's, or to which module, as long as each module has a unique ID

ASSIGNING STATION ID's

- Determine the number of zones and number of stations in each zone in your system. (A 'zone' is a separate individually controlled area or room)
- On the back of each control station there is a small rotary switch marked 'NODE ID' and labeled 0-F
- Using a small flat tip screwdriver turn the dial until the arrow points to the address you want to select. Assign zone 1 stations as ID '1', zone 2 stations as ID '2' etc.
- Stations in the same zone controlling the same lights must have identical ID's.
- Separate zones must have a unique ID.

PROGRAMMING STATIONS/SLIDERS

When programming control stations, it's best to start with zone 1 and work your way in a sequential order.

If you have multiple control stations in one zone working in parallel, only one station will need to be programmed. All other stations in that zone will receive the same programming.

Step by step instructions

- Go to the station you would like to program and press 'F', then '5'. A small 'c' will appear indicating you would like to enter configuration mode.
- Enter the configuration code '2', '6', '3', '7' on the key pad and the display will change to a flashing '0'.
- Move the slider you would like to assign dimmer outputs to. The flashing display should change to the slider number. Sliders are numbered from left to right starting at '1'.
- The system is now in patch mode for that slider. The patch mode LED on all DCM cards will be lit solid. The DCM cards will also display any outputs currently controlled by that slider with a solid LED.
- Using the output buttons on the DCM card you may Add or Remove outputs by toggling the LED. A lit LED indicates the output has been added, a non-lit LED indicates the output has been removed.
- Return to the control station and press 'F' to exit program mode and store the settings.

** Please be aware once in program mode there is a fifteen (15) minute time-out. If the patch mode LED on the DCM cards go out during programming re-start the programming from the beginning.

CONFIGURING DIMMER CONTROL AS NON-DIM

In some cases it may be desirable to only switch the lights on and off from full bright to full darkness. For these cases the outputs on the DCM cards will need to be configured for non-dim operation.

- From the dimming panel locate the DCM card with the output you would like to configure.
- Press and hold the "NON-DIM MODE" button until the LED lights up. ~ 3 seconds
- Press the output button associated with the output you would like to configure. This will toggle the output LED on and off. If the LED is on the output will be set as non-dim, if the output LED is off the output will be set as a regular dimmer.
- Press the "NON-DIM MODE" button to exit and save your settings
- The non-dim programming mode has a very short time-out (30 seconds). If the "NON-DIM MODE" LED goes out before programming is complete, re-start programming from the beginning.
- Sliders controlling non-dim outputs will turn the lights on when the slider is moved above 10% and off when the slider is moved below 10%