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1.0 Features

- 350 DMX channels
- 100 scenes with fade times
- 12 programmable chases with fade times
- 12 programmable cycles of chases and scenes
- 7 day clock calendar, with up to 64 timed events per day
- Daylight sensing with programmable functions
- PIR function with daylight function
- 12 assignable buttons
- 5 pages of alternative key functions
- 2 levels of programming access to prevent unauthorised tampering
- 12 assignable keys with backlight
- 32 character backlit display
- Infrared remote control
- DMX master/slave functions

Operating Instructions

2.0 Definitions

Scene

A scene is a static set of levels over the 350 channels
Scene 00 is not user programmable and is all channels off.

Fade Time

The Fade time is the length of time the scenes take to fade from one to another.

Chase

A chase is a repeating sequence of scenes which can be set to run at a particular speed with its own fade time.

Cycle

A Cycle is similar to a chase, but the individual steps can be scenes or chases.

Timed Event

A timed event can be set to start a function on a particular day and time. The selected function will start when the time is reached. The function can be over ridden by the next key pressed or the next timed event. The timed events are stored in the order they occur in the week, and can be viewed in the menu.

There are two light transition functions:

Light > Dark a selected function that occurs when the daylight level falls below the preset threshold.

Dark > Light a selected function that occurs when the daylight level rise above the preset threshold.

3.0 General Description

The LiteSwitch is a 350 channel DMX controller with 12 keys and a 32 character back lit LCD display. It has a real time clock and calendar facility working on a 7 day week basis. It can store a maximum of 100 scenes, 12 chases and 12 cycles, giving a total of 124 functions.

In the normal working mode, the 12 keys select one of the possible 124 functions. The function is assigned to the key in the menu. Pressing F2 and F4 together selects Scene 000, which is all off.

If any timed events are programmed the unit switches to the programmed function as that time in the week is reached. This function will be over ridden by the next timed event or the next key pressed. Timed events can be globally enabled or disabled. In addition individual timed events can be set to occur only in darkness, only in daylight or all the time.

If a remote light sensor is fitted, then functions can be programmed to occur as the daylight level rises above or falls below an internally preset level. These daylight functions can be globally enabled or disabled.

If a remote PIR sensor is fitted, then a function can be programmed to occur when presence is detected, and a different function when presence is not detected. In addition the PIR action can be daylight linked so selected functions occur when presence is detected but only when it is dark.

All programming is done in the menu mode.

To avoid unauthorised tampering, the menu has two access levels:

Level 1 is accessed by two particular keys being pressed at the same time, and allows access to menu functions that only view settings or make non-damaging changes.

Level 2 is accessed by a 4 digit code and allows access to all menu functions.

The unit has a DMX input which allows scenes to be copied from an external DMX source. Additionally the DMX input can be used to select any function remotely.

4.0 Key Functions

Scene

The 12 keys have menu functions which they adopt when using the menu.



Up/Down

Used to move up and down the menu and to raise and lower settings.
(Keys 1 and 7)

Left/Right

Used to move sideways in the menu.
(Keys 3 and 4)

FFWD/FRWD

Used to change settings to their max/min levels.
(Keys 9 and 10)

Enter

Used to select settings.
(Key 8)

Exit

Used to move back through the menu.
(Key 2)

F1, F2, F3 And F4

Special function keys
(Keys 5, 6, 11 and 12)

5.0 Menu Functions

Enter the menu by pressing UP/DOWN keys together.

An access code (if enabled) is required to gain access to functions higher than 5:

Use UP/DOWN and ENTER keys to enter each digit.

CODE: 4321

Press EXIT to leave the menu and return to normal running mode.

On leaving the Access Code area of the menu, an option to enable or disable the Access Code is given.

Use UP/DOWN keys to move up and down the menu.

Press the ENTER key to enter the selected function.

1: Set Master Level

This sets the overall maximum level the output can reach.

Use UP/DOWN keys to set the level.

Pressing ENTER will save the new level.

Pressing EXIT will cancel the entry and leave the setting as it was previously.

2: Set Page

Changing the page will change the functions assigned to the 12 keys.

There are five pages allowing up to 60 functions to be selected by the keys.

To change the page selection, use the UP/DOWN keys to select the new page.

Pressing ENTER will save the new selection.

Pressing EXIT will restore the selection to its previous state.

3: Display Control

This selects between the display backlight staying on all the time or turning off 25 seconds after the last key is pressed.

If timeout is selected then Key 1 stays dimly lit when the display goes out.

Use UP/DOWN keys to select between "Constant" and "25 second timeout".

Pressing ENTER will save the new setting.

Pressing EXIT will cancel the entry and leave the setting as it was previously.

Next the brightness of the display is set using UP/DOWN keys.

4: View All Timed Events

Use UP/DOWN keys to view the list of timed events.

Timed events are displayed in the order they occur in the week.

No changes can be made to the list in this function

5.0 Menu Functions

5: Enable Auto Functions

Use UP/DOWN keys to select between ON or OFF for each function.

Use ENTER to move on to next function.

Press EXIT at any time to return to the main menu without storing the new settings.

“Real Time” globally enables or disables the timed events

“Light Link” enables or disables the daylight function of all the timed events. If disabled, the event occurs regardless of light level.

“Dark > Light” and “Light > Dark” enable or disable the light transition functions.

“PIR DETECTOR” enables or disables the PIR functions

6: Edit DMX Scene

Use UP/DOWN and ENTER keys to select the scene 1-100 you wish to edit. Once a scene is selected, it is brought up live for editing. Use LEFT/RIGHT keys to select the channel to change, and UP/DOWN keys to make the changes.

F1 will allow you to select a scene to copy using UP/DOWN and ENTER keys. This allows you to program a number of similar scenes with only minor changes to each.

F2 will set all the channels to 00

F3 calls up the AUTOMATIC FUNCTION ON/OFF menu option, which allows the light sensor, PIR Detector and timer to be enabled or disabled as part of a scene.

Selecting CANCEL removes automatic functions from the scene.

If a scene contains automatic functions, a “★” is displayed next to the levels.

When the scene is finished, use ENTER to save the new scene, or EXIT to cancel the changes and leave the scene as it was.

F4 is a shortcut to channel 350

7: Set Fade Time

Use UP/DOWN AND ENTER keys to select between set all scenes fade times together or each one individually.

If you select INDIVIDUAL you must select the scene you wish to set the fade time for.

Use UP/DOWN and ENTER keys to set the fade time in minutes and seconds. 00:00

ENTER will save the new time.

EXIT will return to the main menu without saving the new time.

8: Program A Chase

Use UP/DOWN and ENTER keys to select the chase to program.

Select the scene required for step 1 of the chase.

Press ENTER to select the scene.

Use LEFT/RIGHT and ENTER keys to select either NEXT STEP, or END. NEXT STEP allows you to program the steps in sequence.

END moves on to setting speed and fade time

Use UP/DOWN and ENTER keys to set the speed in minutes seconds and 1/10 seconds, then the fade time in minutes and seconds.

SPEED: 00:00:00

FADE: 00:00

ENTER stores the chase and returns to the main menu.

If you only require to change the speed or fade time of a chase, then select the chase and press EXIT to jump straight to speed and fade time setting.

Operating Instructions

5.0 Menu Functions

9: Program A Cycle

Programming a cycle is done in the same way as programming a chase, except that you are allowed to select chases as well as scenes as steps. (the chases follow after Scene 100 when using UP/DOWN keys).

During a cycle, scenes cross fade at their FADE TIME and chases use their own fade time, so you only need to set the cycle time.

The cycle time is entered in minutes and seconds.

SET CYCLE SPEED

00:00

Unlike with a chase it is possible to set a different step time for each step eg step 1 lasts 2 seconds step 3 lasts 10 seconds step 3 lasts 5 seconds etc.

After programming the steps and selecting NEXT, you are given the option of setting all the step time together with the same time or setting each step time individually.

Use UP/DOWN and ENTER buttons to make a selection.

If ALL STEP TIMES is selected then the time can be set in minutes and seconds and will be set the same for all the steps.

If SINGLE STEP TIME is selected then you must select the step you wish to set the time for.

The time is entered in minutes and seconds.

When the time is entered the display will move onto the next step and the step times can be entered up to the last step.

If you wish to exit before entering all the steps press EXIT.

A cycle can be set to repeat continuously after the last step or can run through just once and stop on the last step.

Use UP/DOWN and ENTER keys to choose between REPEAT or ONE SHOT.

10: Set The Clock

Use UP/DOWN and ENTER keys to set date and time.

When the time is set, select between SAVE to set the new time or CANCEL to leave the clock as it was.

11: Create A New Timed Event

Use UP/DOWN and ENTER keys to select day and time.

It is also possible here to select ALL WEEK, which sets this time all 7 days,

WEEKDAYS which sets Monday – Friday or WEEKENDS which sets Saturday and Sunday.

Next set the daylight link which can be set to 24 HOUR which means this switch time will always occur DARK which means the timed event will only occur if the daylight level is below the preset threshold level or DAYLIGHT which means the timed event only occurs when the daylight is above the preset level.

Having set the daylight link, next select the function which can be a scene, chase or cycle.

Pressing EXIT at any point will return to the main menu without storing the timed event.

12: Edit/Delete An Event

Use UP/DOWN keys to scroll through the list of timed events. Press ENTER when the timed event you wish to change is reached.

The selected event can be edited in the same way as creating a new timed event.

To delete the switch time completely, press F2. After deleting an event, the remaining events are renumbered and you return to the start of the list.

Operating Instructions

5.0 Menu Functions

13: Erase All Events

In order to avoid accidentally erasing all the settings, an option of YES or NO is given. Use UP/DOWN keys to select YES or NO, and use ENTER to select option.

14: Light Functions

Scroll through Light > Dark function using UP/DOWN keys and ENTER to select.

Then do the same for Dark > Light function.

Pressing ENTER will save the new functions.

Pressing EXIT will return to the Menu, leaving both functions unchanged.

15: PIR Control

Use Up/Down and Enter keys to select the function to occur as presence is detected, and not detected.

Next set the daylight link to ON or OFF. If ON is selected the presence detected function will only occur in darkness.

PIR TIMEOUT is set to either 30 seconds, 1 minute or 2 minutes using UP/DOWN keys.

This is the length of time after a room is vacated that the presence not detected function occurs.

Pressing EXIT at any time will cancel the settings and leave the PIR settings as they were.

16: Set Start Up Function

This feature selects the function that occurs when the unit is first powered up.

Use UP/DOWN keys to select the option.

The options are:

‘Last key’ which powers up on the last function selected from the keypad before power was removed.

‘Daylight’ which uses the light sensor to select between the Light or Dark function.

‘Timer’ where the unit will read the current time and power up on the last timed event to have passed.

‘Set Function’ which allows any particular selected scene, chase or cycle to start on power up.

17: Assign Keys

This determines which function each of the 12 keys will select when in normal operating mode.

Select the key to be assigned by using the UP/DOWN keys. The function currently assigned to the key will be displayed.

To change the keys function press ENTER and use the UP/DOWN keys to select a new function. Pressing ENTER again will save the function. Pressing EXIT will return to the menu leaving the keys as they were.

Operating Instructions

5.0 Menu Functions

18: Edit Key Names

This allows an alpha numeric heading of up to 16 characters to be set which appears on the top line of the display when each particular key is pressed.

First use UP/DOWN keys to select which of the 12 keys is to be named.

F2 will clear the whole line and return the cursor to the start.

19: DMX Input Functions

There are 2 DMX input functions:

Snapshot Mode

When set to ON, DMX input data is read in when editing scenes to allow scenes to be copied from an external source.

Use UP/DOWN keys to toggle between ON and OFF and ENTER to select new setting.

Dmx Remote Mode

When this mode is set to ON, external DMX values can be used to select scenes, chases or cycles.

The DMX values are as follows:

DMX Value	Function
00	Do nothing
01	Scene 1
02	Scene 2
100	Scene 100
101	Chase 1
102	Chase 2
112	Chase 12
113	Cycle 1
114	Cycle 2
124	Cycle 12
125	
126	
255	Scene 00 (off)

Use UP/DOWN keys to toggle between ON and OFF and ENTER to select new setting.

After entering new settings, you can set the DMX channel you wish the Liteswitch to respond to.

DMX ADDRESS

0001

Use UP/DOWN keys to select the channel from 1 to 512.

After entering the new DMX channel, the DMX input status is displayed.

Press ENTER again to return to menu.

Operating Instructions

5.0 Menu Functions

20: Set Control Channels

If the Liteswitch is to be used to control 1 or more remote LiteSwitches then setting the control channels will make operation easier. The control channels are 346 to 350.

When set to ON, these 5 channels will always jump directly to a new level rather than fading. This avoids the slave LiteSwitches going through lots of functions as they would if the control channel faded to its new value.

Use UP/DOWN keys to toggle between ON and OFF and ENTER to select the new setting.

21: PIR Sensor ON/OFF

The sensor for the infrared remote control can be turned ON or OFF.

It is best turned off if not required.

Use UP/DOWN and ENTER keys to select between ON and OFF.

22: Set Factory Settings

This will restore all the programmable parameters to their default setting.

To avoid this being done accidentally, an option of YES or NO is given

Use UP/DOWN keys to select YES or NO, and use enter to select option.

23. Optional Remote Control

Function Select Keys 1-48:

Keys 1-12; select the functions of Page 1 buttons 1-12

Keys 13-24; select the functions of Page 2 buttons 1-12

Keys 25-36; select the functions of Page 3 buttons 1-12

Keys 37-48; select the functions of Page 4 buttons 1-12

Master + key gradually raises the master brightness to max.

Master - key gradually reduces the master brightness to zero.

Restore key sets the master level to full and restores any function that has been blacked out. Any chases will return to their stored speed and fade time.

Blackout key will fade all channels to zero at the fade time stored for scene 00.

Speed + key will increase the speed of any chase currently running.

Speed - key will decrease the speed of any chase currently running.

Fade + key will speed up the fade time between steps of any chase currently running.

Fade - key will slow down the fade time between the steps of any chase currently running.

Note that the speed and fade modification by the **Speed+** and **Speed -** keys, and the **Fade +** and **Fade -** keys, is only temporary and the chase will return to its normal settings if reselected.



Operating Instructions

6.0 Electrical

Power Supply v+ 12V - 25V @ 140ma

