Autolux Universal Lighting Control System

Chalmor

Total Energy Saving Solutions
for Your Environment

Product Data Sheet

Catalogue Number:	**DLS/6 LuxMaster**
Voltage Supply:	**220-240VAC 50Hz**
Maximum Load:	**3A - For switching contactor coils ONLY.**
Switching Contacts:	**Volt Free**

Environmental: **Control Box, Handset & Contactor Panel**
These items must be installed indoors
The system must not be installed at an altitude of more than 2000 metres
The allowable humidity conditions are not more than 80% RH up to 31°C decreasing linearly to 50% RH up to 40°C
The pollution degree is 2 in accordance with IEC664.
The installation category is 3 for the contactor box and 2 for the control box.
The safe operating temperature range is +5 °C to +40 °C.

Sensor: **Optosensor**
The optosensor is intended to be located externally.
The operating temperature range is -20 °C to +40 °C.
Supplied With 20mm Conduit Mounting Coupler

Dimensions (mm):

Master Control Unit	**220 x 175 x 85mm**	
Remote Control Unit	**100 x 195**	**x 44mm**
Contactor Panel		**Details On Request**
Remote Sensor	**30∅ x 50mm**	

Fixing method: **Master Control Unit - Surface mounted with suitable screw fixing**
Remote Control Unit – Supplied with universal mounting plate and bracket

Time Control:	**6 channel 24 hour digital 7 day (24/12 hour display)**
Display:	**LCD Screen and 6 x Status LEDs**
	Green = Stage ON
	Red = Stage OVERRIDE
	Black = Stage OFF

Programme Facilities:	**Via Digital Key Pad (8 time periods per stage, per day)**
Override Function:	**x 6 Via Key Pad**
GMT/BST Adjustment:	**Via Key Pad**
Standby Power Supply:	**Internal battery system**
Discharge Time:	**14 Days**

Light Level Adjustment:	**Stage 1-6: 1 to 25000 lux**

Operational Metering:	**Override Hours, Saved Hours and ON Hours**
Calibration:	**0000h : 00m**

Override System:	**Remote Control Unit Key Pad**
Duration:	**250 minutes (Maximum)**

Conformance:	**EMC - 89/336/EEC**
	LVD - 73/23/EEC

CE

Commissioning And Settings

1   Ready Screen
DDD   HH:MM
Lux

DDD   Displays current day of the week.
                 This can be altered if inaccurate.

HH:MM   Displays the current time in either 12 hour or 24 hour format.
                 This can be altered if inaccurate.

Lux   Displays the current recorded light level at the sensor point.
                 This value updates 60 times per minute.

When the 'ready' screen shows as above, the LuxMaster DLS6 is operational and ready for use.

2   Lamps
There are six indicator lamps, one for each operational stage. Each stage represents all lighting circuits which have been dedicated to that stage. It is not necessary to use all six stages if they are not required. Stage numbers 1 - 6 are represented from left to right on the hand held unit.

Lamp illumination indicates the following statuses : -

Green   Stage is on automatically
Red   Stage is on through manual override
Off   Stage is off

3   1 - 6
Allows all stages to be grouped together for programming

4   Day
Allows day settings to be changed

5   Set up
Allows set up parameters to be set or altered

6   Digital Keypad
Digits 0 - 9 for full flexibility in programming options and settings

7   Yes
Allows details entered to be accepted

8   No
Allows user to cancel program details or parameters

TABLE OF CONTENTS

1.   NORMAL OPERATION

In normal operation, the following 'ready' screen is displayed.

<div align="center">
DDD   HH:MM
Lux
</div>

The only functions available without special access codes are override stage(s) or view stage timers. Any operator can perform these functions, as described.

1.1   Manual Override

Manual Override allows the user to force a stage or stages to switch on for a preset time. This is performed when the operator needs the lights on when the sensor detects that they are not necessary. Example:- for maintenance.

It is possible to override either individual stages or all stages simultaneously.

To override an individual stage

Ensure 'ready' screen is displayed

Press required stage number (1 to 6) using keypad, or press button '1-6 ' to override all stages simultaneously.

Override screen will appear as follows:

<div align="center">
Stage #
Override Yes/No
</div>

Press 'Yes' to accept the override option. Stage lamp will illuminate RED to indicate that the stage is in manual override.

This process can then be repeated exactly to cancel override at any time.

Press 'No' to cancel this option. By pressing 'No' the system will automatically display the stage timers.

1.2   Stage Timers

The stage timers show the number of hours that the stage has been switched on, overridden or power saved.

These are displayed as follows:

Stage # on   Shows the time the stage has been On automatically
hrs ## mins

Stage # saved   Shows the time the stage has been off. i.e difference
hrs ## mins   between program time and on time.

Stage # override   Shows the time the stage has been manually overridden
hrs ## mins

2   AUTOMATIC SETUP

2.1   To Set Up LuxMaster dls6

Set up options are as follows:

Press set up button. The screen will scroll through the options :
1 > Set Time
2 > BST/GMT
3 > Program Set up
No> Cancel

2.1.1   Set Time

This option allows the user to alter either the time or day setting.

Access the set up menu as described in 2.1

Press button '1' to select 'Set Time' option

Set Time screen will appear as follows

                         12 hour display   24 hour display
                         Set time   Set time
                         DDD   HH:MM a/p   DDD   HH:MM

To alter the day

Pressing the day button allows the day of the week setting to be altered. Each press of the day button cycles the user through the days of the week.

To alter time

Cursor will flash to left of input field.

Using digits 0 - 9, enter the correct time in either 12 hr or 24 hr format. Always enter the leading 0, for example 09:30a or 09:30.

Press 'Yes' to accept input data. (Settings will be updated)

Press 'No' to cancel and return to ready screen.

2.1.2   BST/GMT changeover
Access set up menu as described in 2.1

Press '2' to select BST/GMT toggle option.

The unit will automatically increase or decrease the time by 1 hour.

The unit will return to the 'Ready' screen automatically, there is no need to confirm this action.

2.2   TO PROGRAMME LUXMASTER DLS6
The following programme options are available:

1 > 12hr / 24hr clock selection
2 > Programme Times
3 > Set Lux Levels
4 > Override Time
5 > Maintenance
No> Cancel

Ensure 'Ready' screen is displayed

Press ' Set up ' button

Select option 3 (Program Set up)

Screen will display
> **Enter PIN Number**
> **- - - -**

Cursor will flash on the left of a 4 digit entry line

Enter PIN Number 1 2 3 4 , followed by 'Yes'

As each number is entered, an * will appear to replace the dotted line.

2.2.1   12hr / 24hr OPTION
LuxMaster clock operates in either 12 hour or 24 hour cycles. Select the preferred option by the following method:

Enter the 'Program Mode' as previously described.

Press '1' to select '12/24hr' option on the set up menu

2.2.2   Program Times
This option allows the user to set up the lighting timing matrix for all/ any stage for each individual day, or group of days, of the week for up to 8 time periods as follows.

 Autolux 1
 On 1
 Off 1
 Autolux 2
 On 2
 Off 2
 Autolux 3
 Off 3
All of the above can be the same setting/time

In brief, the following outlines the function of each of the 'Program times' settings.

Autolux
At time specified by 'Autolux' setting, the system enters fully automatic mode for a particular stage on a particular day.

ON
Lights are forced ON, regardless of LUX reading.

OFF
Lights are forced OFF, regardless of LUX reading.

SETTING THE PROGRAMME

Enter the 'Program Mode' as previously described.

Press button 2, to select 'Program Times' option

The program times screen will display as follows: -

> **Which Stage ?   #**
> **Day ?   Mon - Sun**

The input # will be that selected on the key pad by the user.

Press the digit on the keypad to select stage 1 - 6 or press 'All' to select all stages.

Select the DAY to programme by pressing the 'Day' button. The following options are available in sequence.

 . Mon - Sun
 . Mon - Fri
 . Mon
 . Tue
 . Wed
 . Thu
 . Fri
 . Sat
 . Sun

When the screen shows both the stage and day you wish to programme, press 'Yes'.

The screen will alter to display the selected stage and day, and will scroll through the following options.

1 > Autolux 1
2 > On Time 1
3 > Off Time 1
4 > Autolux 2
5 >On Time 2
6 > Off Time 2
7 > Autolux 3
8 > Off Time 3
No > Cancel

To update settings, press digits 1 - 8 or 'No' as appropriate.

The following is an example of the standard programming technique required for any/ all programme time settings.

Select Time to be altered, in this example it is On time.

2 > On Time 1

Cursor will flash at left of input field.

Use 0 - 9 buttons to type the actual time required (either 12 or 24 hour clock)

Example09:30

Press 'Yes' to accept and update data, or 'No' to cancel data update.

Examples of Settings:

Setting	24 hour Lights Off	24 hour lights On	24 hour automatic
Autolux 1	00.00	00.00	00.00
On Time 1	00.00	00.00	24.00
Off Time 1	00.00	24.00	24.00
Autolux 2	24.00	24.00	24.00
On Time 2	24.00	24.00	24.00
Off Time 2	24.00	24.00	24.00
Autolux 3	24.00	24.00	24.00
Off Time 3	24.00	24.00	24.00

Setting	Night Shift Automatic	Day Shift Automatic	Night Shift Lights ON	Day Shift Lights ON
Autolux 1	00.00	00.00	00.00	00.00
On Time 1	08.00	00.00	00.00	8.00
Off Time 1	08.00	00.00	8.00	18.00
Autolux 2	18.00	08.00	18.00	24.00
On Time 2	18.00	18.00	18.00	24.00
Off Time 2	18.00	18.00	24.00	24.00
Autolux 3	18.00	18.00	24.00	24.00
Off Time 3	24.00	18.00	24.00	24.00

2.2.3 Set Lux Levels

Access setup menu as described in 2.1

Press '3' to select Lux Level setting

Press a key 1 to 6 to select stage to be set or press '1-6' to set all stages simultaneously.

Press 'Yes' to accept then

Cursor will flash to left of input field. Using buttons 0 - 9, type in the actual lux level at which you require this stage to switch on. This value must be between 1 and 25000 lux.

Press 'Yes' to accept new settings or 'No' to cancel and return to setup screen.

2.2.4 Setting Override time

Access setup menu as described in 2.1

Press '4' to select Override setting

Press 1 to 6 to select stage to be set or press '1-6' to set all stages simultaneously.

Press 'Yes' to accept then

Cursor will flash to left of input field. Using buttons 0 - 9, type in the actual number of minutes you require the override to last before setting back to automatic. This value must be between 1 and 250 minutes.

Press 'Yes' to accept new settings or 'No' to cancel and return to setup screen.

2.2.5 Maintenance

This option is not available.