

Quick start instructions

Connect the PIR detectors using low voltage alarm cable as shown on page 4.
Connect mains power and the lights that are to be switched in accordance with IEE regulations. If in doubt, consult a qualified electrician.

Switch on the power. The relay will active immediately if the ambient light level is low, bringing on the lights for the pre set period of 3 minutes.
The TRIGGER led will flash each time detection occurs.

Test the set up by a short press of the TEST button. The display will show the ambient light level and the relay will active for 3 seconds each time a detection occurs regardless of the ambient light level.
Walk test all the PIR detectors to ensure correct coverage. Once complete, short press the TEST button to revert to normal operation. Normal operation will automatically restore after 10 minutes

You can change the dawn/dusk level in the menu with parameter LL. Remember to press the memory button M to store any changes.

You can change any time settings in the main menu.

Compatible PIR detectors

GX200 15 metre/40 metre or horizontal curtain
GX30 30 metre

NB: The DX100 can be activated by any device with a volt free momentary contact. You can select to activate from either normally closed N/C or normally open N/O



DX100 Lighting Control Installation Instructions

Model: DX100 *mk3*

Issue 1.

PRE-INSTALLATION NOTES

Unpacking.

On receipt, inspect the package and contents for signs of damage. If damage has occurred, advise the carrier and/or suppliers immediately. Inspect the contents to confirm that all items are present and undamaged. If any items are missing or damaged, contact the supplier immediately. It is advisable that the original carton is retained as this forms the safest transport container in the event that a unit has to be returned for any reason.

Servicing.

This unit should not require general servicing. Any repair work should only be undertaken by Luminite Electronics Ltd.

Moisture.

Do not expose the internal electronics of this unit to moisture i.e. take care during installation not to allow rain or damp into the product. When the product is sealed it is water resistant to IP66.

Box Contents.

1 x DX100 mk3

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TEST_mode

When Test Mode is selected, the DX100 will react to PIR detections whether it is day or night, regardless of the light level setting. Additionally the timer will temporarily change to 3 seconds. During the test period, you can walk past each PIR detector and observe your lights activating for 3 seconds each time the detector senses movement. Test mode will cease after 10 minutes or you can force it out of this mode by a short press of the test button.

During test mode, the display will show the light level in a range from 00 to 99.

By default, the DX100 is set to change from day operation to night operation at level 50.

Procedure.

Short press of button TEST toggles between TEST_mode and NORMAL_mode.

During TEST_mode the display shows the actual "LL" value.

Normally, LL value is 50 but it is possible to lower this to enable light to come on earlier or increase it to come on later.

If you are not sure, you can wait until dusk and then short press the TEST button to see value to set.

Also is possible to store it to memory without editing MENU:

- just long hold button TEST, after 4s it starts flashing (3s long) that indicates successful update of "LL" value in MENU.

Note: Short press TEST to enter TEST_mode. Short press TEST to exit this mode.

A 4 second long press of TEST will SAVE the actual light level.

During TEST_mode, The DX100 reacts to all PIR detectors and activates both Relay + Sounder for 1.5 seconds, no matter what Light conditions are and what MENU settings are.

Tips

Do you need to automatically turn the lights ON at dusk for example 2 hours and then revert to PIR activated only ?

-- set parameter "rr" (Relay / Regularly on Night) to 88

Do you also want to turn the lights ON for 15 minutes on any PIR activation on Night ?

-- set parameter "rn" (Relay / Night on Detection) to 81

To RESET back to the factory default setting, press and hold the RST button until the display shows ds. Let go of the button and the display will once again say HI followed by the software revision.

"SE".. Sounder / Every Evening Regularly 00..99 00 // disabled
 12 volts DC will be provided on terminals 1 and 2 at dusk if a setting other than 00 is chosen. The time can be set from 1 second to 4 hours 45 minutes

"LL" .. Light Level 00..99 50 // middle

"Po" .. Polarity of TRIG input 0=NO,1=NC 1 // NC

note: first 6 parameters are Time settings,

value 0 means that the function is idle (i.e. disabled),

values 1..60 are [seconds],

values 61..80 are steps of 0.5 minutes (up to 10 minutes),

values 81..99 are steps of 15 minutes (up to 4h45m);

see Time Table below, common for all Time settings

parameter Light Level sets the Night/Day threshold,

value 00 means maximal darkness

value 99 means maximal light

Time Table

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// values 00..60 mean 00..60 seconds (00 = Idle, inactive)			
// values 61..99 see table below			
// 61 0.5min	71 5.5min	81 15min	91 2h45m
// 62 1.0min	72 6.0min	82 30min	92 3h
// 63 1.5min	73 6.5min	83 45min	93 3h15m
// 64 2.0min	74 7.0min	84 1h	94 3h30m
// 65 2.5min	75 7.5min	85 1h15m	95 3h45m
// 66 3.0min	76 8.0min	86 1h30m	96 4h
// 67 3.5min	77 8.5min	87 1h45m	97 4h15m
// 68 4.0min	78 9.0min	88 2h	98 4h30m
// 69 4.5min	79 9.5min	89 2h15m	99 4h45m
// 70 5.0min	80 10min	90 2h30m	

Introduction.

The DX100 mk3 is a mains powered lighting control unit that works with low voltage PIR detectors to create a fully wired lighting system. The DX100 mk3 provides the isolated 12 volt supply required to power the GX PIR detectors.

Upon detection, the lights will turn on for the selected period.

Lights are normally set to only come on at night but can also be set to come on during the day. Day and night times can be different.

There is a 12 volt DC output to drive sounders but can also be used for other purposes. Again the sounder output has two time settings, one for day and one for night. A setting of 00 means disabled.

A new feature will allow the lights to automatically come on at dusk for a pre-selected time and then revert to PIR activated lighting at the end of that time period.

PIR detectors are normally wired in series and the GX200 or GX30 should be set to N/C. The Po setting on the DX100 should also be set to 1 (N/C). It is possible to opt for a normally open system if preferred or if you want to activate the DX100 from alternative devices with N/O outputs. Simply change the Po setting to 0 (N/O)

Use GX200 or GX30 low voltage PIR detectors (12 volts) to create a wired detector system without running large unsightly power cables to each PIR.

The DX100mk3 is housed in an IP66 weatherproof enclosure for robust external use.

Cable entrance is via cable glands to maintain the IP rating.

Mains wiring

Connect 220/240 volts 50 HZ to terminals 10 (Line in) and 12 (Neutral). Ensure that the supply is fused to no more than 3 amps.

Connect the lamps load to terminals 11 (Line out) and 12 (Neutral)

Two earth terminals are provided for convenience 8 & 9

Ensure all wiring conforms to IEE standards.

If in doubt, consult a qualified electrician.

When power is applied, the display will show **HI** followed by the software revision.

PIR detector wiring

This low voltage wiring operates at 12 volts DC and can be wired using low voltage cabling .

GX detectors have normally closed (N/C) alarm contacts, and these are connected in series to the DX100 mk3 terminals 3 (Negative) and 5 (Trigger).

Terminals 3 (Negative) and 4 (Positive) provide the 12 volts DC for the detectors.

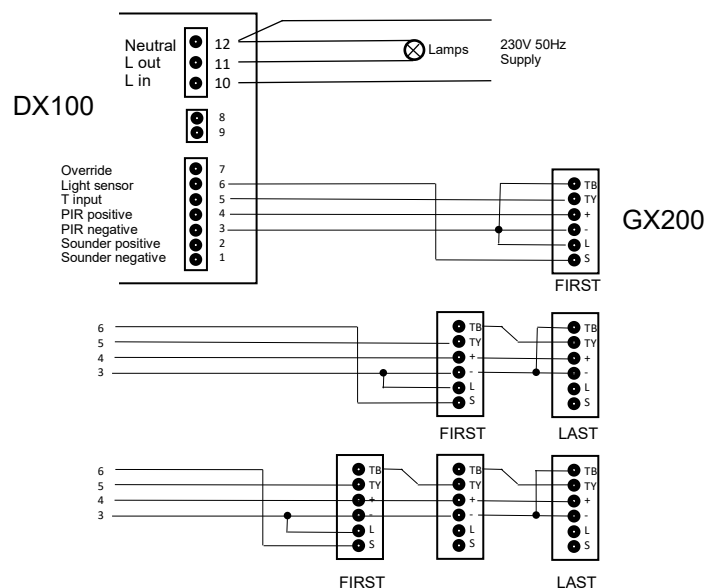
When using more than one PIR detector, they must be wired in series.

The light sensor connects to terminals 6 and 7(L/S)

NB: If more than one PIR is used, only connect one L/S from one PIR to the DX100 mk3.

To override the lighting, connect a switch to terminals 3 and 7.

TYPICAL WIRING EXAMPLES FOR GX200 PIR DETECTORS



Up to eight PIR sensors may be connected in this way

Programming

There are four buttons below the display

M = Memory

II> = Enter

□ = Up

□ = Down

Press the enter button. Two bars will appear on the display.

Press the enter button again and the first parameter (rn) will show.

To change this parameter, use the up or down buttons.

Press enter again to move on to the next parameter .

When all settings have been chosen, press and hold the memory button (M). When the two bars move from the bottom to the top, the settings will have been saved.

To restore factory default settings, press the reset button RST

Menu

Menu	Range:	Default:
"rn" .. Relay night. On detection	00..99	66 = 3 minutes

This is the length of time that the relay will be closed when there is a de-tection at night time

"rd" .. Relay day. On detection	00..99	00 = disabled
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This is the length of time that the relay will be closed when there is a de-tection during day time

"rE" .. EveryEvening Regularly	00..99	00 = disabled
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The relay will close to bring on lighting at dusk if a setting other than 00 is chosen. The time can be set from 1 second to 4 hours 45 minutes

"Sn" .. Sounder night. On detection	00..99	02 = 2s
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12 volts DC will be provided on terminals 1 and 2 during day time

"Sd" .. Sounder day. On detection	00..99	02 = 2s
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12 volts DC will be provided on terminals 1 and 2 during day time