PRESENCE DETECTOR FOR DALI LIGHTING CONTROL
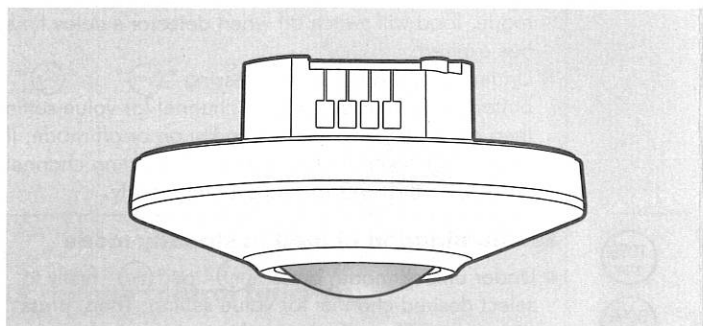
OS-384i -DALI -230
OS-384S (slave version)

INSTRUCTION MANUAL

TECHNICAL SPECIFICATIONS

Rated Voltage	: 220 - 240V~ 50 / 60Hz
Output	: 2 channels (DA1 & DA2) Max. 25pcs DALI electronic ballasts or LED drivers can be connected for each channel
Power Consumption:	Approx. 0.5W
OS-384S	: (For optional purchase) Is a slave detector used to detect and transfer detecting signal to master detector OS-384i-DALI-230 while a larger detection range is controlled, max. 10pcs slave detectors can be connected.
Auto Off Time Adjustment	: Adjustable from approx. 1min to 60min and Test
Lux Adjustment	: Lux1:Adjustable from approx.10Lux to 2000Lux and " 👁 " (learning range: 10Lux to 2000Lux) Lux2:Adjustable from (25%~100%) x Lux1 value
Load on time in standby mode	: 3 precise adjustments: 5min, 10min, 15min and ∞.
Load on illumination in standby mode	: 3 precise adjustments: 10%, 20%, 30% and OFF (Load is off in standby mode)
Detection Range:	360° circular, up to Φ8m at height of 2.5m
Environmental Protection	: IP44 (mount with JB-42) : IP40 (mount with SP-93 & EU Junction Box)
Operating Temperature	: 0°C to +45°C

Installation and assembly of electrical equipment must be carried out by qualified electricians. Contact a qualified electrician in the event of fault or break down.

1 PACKAGE CONTENTS

- **OS-384i-DALI-230 / OS-384S**

Pattern				
Item	Detector	Screw Φ3 x 16mm	Lens shield	Manual
Quantity	1	2	2	1

- **Accessories for optional purchase**

Pattern			
Item	Junction box JB-42	Non-dropping screw Φ3 x 15mm	Wood screw Φ4 x 25.4mm
Quantity	1	4	2

Pattern		
Item	Power box cap SP-93	IR-11DALI (optional purchase)
Quantity	1	1

2 PRODUCT DESCRIPTION

This is a Presence Detector integrated PIR motion detector and light level detector, solely designed for incorporating to the DALI (Digital Addressable Lighting Interface) intelligent lighting management system to provide multi-functions such as switching on and off and dimming the light, also can do lighting scenery setting which can offer comfort and convenience as well as energy saving benefits. This product provides 2 channels outputs for controlling lighting systems in two zones independently.

2.1 Features

- Available in various mounting ways, e.g. surface mount and flush mount both applicable, and can be fitted into the European standard junction box.
- Detection range can be extended by connecting the slave detector (OS-384S) to master detector, max. 10pcs slave detectors can be connected.
- Can be programmed by IR remote control for easy and quick settings, also to get function of auto / semi-auto mode (Note: The IR remote control is strongly recommended to purchase).
- The ambient Lux value can be learned as the threshold for switching on / off the loads by IR or VR if the pre-set Lux value does not match user's requirement.
- The accessories junction box (JB-42) & power box cap (SP-93) for optional purchase to meet different mounting requirements.

- Red & Green LEDs are equipped as indicators for test triggering and IR setting.
- Compliant with International DALI IEC62386 Standard protocol.
- With 2-channel DALI outputs control lighting system in their corresponding areas, all connected devices share the same broadcast address. And there is no need to assign address to every device.

2.2 Dimension
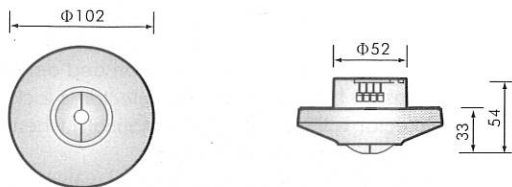
- **OS-384i-DALI-230** : Φ102 x 54mm (See FIG.1-A)

Φ102

Φ52

33 54

FIG.1-A

- Detector with junction box (JB-42) (optional purchase)
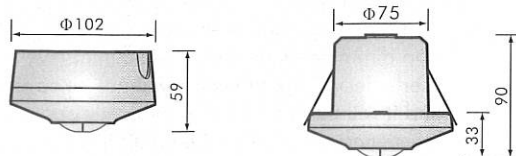- Detector with power box cap (SP-93) (optional purchase)

Φ102

59

Φ75

90

33

FIG.1-B

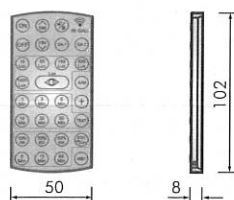- **IR-11DALI** Remote control (optional purchase)

102

50

8

FIG.1-C

3 INSTALLATION AND WIRING

⚠ Please disconnect power completely and read the entire instruction manual carefully before installation.

3.1 Select a proper location

3.1.1 OS-384i-DALI-230 / OS-384S can be installed at the height of 2-5m and the height of 2.5m is recommended to gain the optimal detection pattern. The detection range can reach up to the diameter of 8m and 360° detection angle (See FIG.2).

Top view

360°

Φ8m

Φ4m

Side view

2.5m

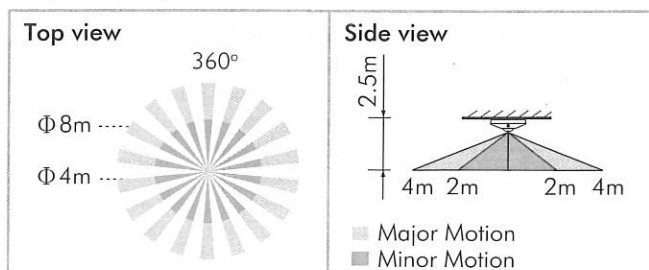4m 2m   2m 4m

▨ Major Motion
▨ Minor Motion

FIG.2

3.1.2 Pay attention to the walking direction in the test proceeding. It is more sensitive to movement across the detector and less sensitive to movement directly toward to detector which will reduce the detection coverage (See FIG.3).
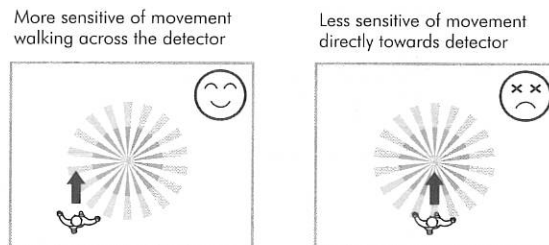
More sensitive of movement walking across the detector

Less sensitive of movement directly towards detector

FIG.3

3.1.3 Helpful tips for installation

Since the detector is in response to temperature change, please avoid the following conditions (See FIG.4-A & FIG.4-B):
- Avoid aiming the detector toward the objects which may be swayed in the wind, such as curtain, tall plants, miniature garden, etc.
- Avoid aiming the detector toward the objects whose surfaces are highly reflective, such as mirror, monitor, etc.
- Avoid mounting the detector near heat sources, such as heating vents, air conditioning, vents as dryers, lights, etc.
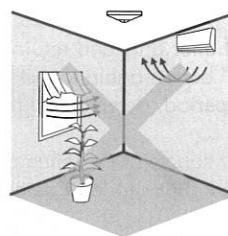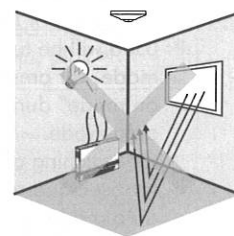
FIG.4-A   FIG.4-B

- The presence detector has two DALI outputs. DA1 is the "master channel" in terms of light measurement and light control. DA2 is subordinate to DA1. Remember to bear this in mind when assigning lighting groups to the channels, we recommend that you assign the "room interior" lighting groups to DA1 and the "window side" lighting groups to DA2. Nevertheless, it's still possible to mount the detector on the ceiling in any place.

3.1.4 Installation tips specially for DALI dimming presence detector

- The detector should be placed in room where it can measure both natural light and artificial light simultaneously.
- Direct light on the detector from any illumination should be avoided.
- You should be away from the detector to avoid affecting the luminous flux that reaches the detector when making Lux value setting.
- Do not install the detector directly next to a window or sun blind which can cause incorrect measurement on the natural light (Refer to FIG.4-C)
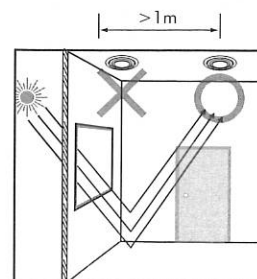
>1m

FIG.4-C

3.2 Function

3.2.1 Auto mode

● Under Auto mode, the load will turn on automatically when the movement is detected and the ambient light level is below the Lux setting value. When no movement is detected and the delay time has expired, the load will (turn off) move to standby mode automatically.

● According to the changeable ambient light level, detector can postpone load's delay time of turning on and off to avoid load's unnecessarily switching on or off due to rapid ambient light change:
Ambient light level changes from bright to dark: If the ambient light level keeps to be lower than the preset Lux value for 10sec, the light will be automatically switched on after 10sec. (LED will be on 10sec for indication)
Ambient light level changes from dark to bright: If the ambient light level continuously exceeds the switch off Lux value for 5min, there are different reactions according to the time setting value.
Time setting ≥ 5min, the light will be automatically switched off after 5min.
Time setting < 5min, the light will be automatically switched off when the set time reached if no movement is detected during the 5min. But if there is movement detected within the 5min, the time will be reset upon detection and until 5min later, the light is switched off.
Remark: Both DA1 and DA2 have the above mentioned functions.

3.2.2 Stanby mode function

● In auto mode and the ambient light level is still below the pre-set Lux value, once the pre-set delay time reached and no movement is detected, the detector will move into standby mode, then load (light) will keep on with the lower illumination level according to the STBY% setting and the delay time is according to STBY setting.
During the standby mode period, if the detector is activated, the load (light) will change to be with 100% illumination level and automatically resume to auto mode. Load (light) will be turned off when the ambient light level is above the pre-set value and there is no movement detected after the STBY delay time reached.

● When changing the standby light level setting either with knob or IR operation, light will be dimmed in 1sec to the newly selected light level and keep it on for 5sec, then returns to the light level of last setting for user to compare the light level before/after change that can help user to select the proper light value.

3.2.3 Auto dimming (constant light level control)

According to the changeable ambient light level, the load can dim to bright or dark automatically to match the Lux setting value (Lux setting value by IR or knob is measured the mixed light level of artificial light and the ambient light).

3.2.4 Manually ON / OFF switching function

3.2.4.1 Terminal of R/S1, R/S2, R/S and push button (N.O. type) can be series connected to control load's on / off manually. (case 1: on → off; case 2: off → on). While pressing push button(≤1sec):

Case 1: Manual off switching (Lux settings is invalid):
Under the light on status, the light can be manually switched off by short pressing (≤1sec) the push button. During this operation mode, once the detector is triggered by movement, the light keeps off within the set switch off delay time. Until there is no movement detected and the pre-set switch off delay time has reached, the detector resumes to work according to the previous operation mode set by knobs or IR. To press the push button (≤1sec) during the light manual off period will activate the manual light on function (working as Case 2).

Case 2: Manual on switching (Lux settings is invalid):
Under the light off status, the light can be manually switched on by short pressing (≤1sec) the push button. During this operation mode, once the detector is triggered by movement, the light keeps on within the pre-set switch off delay time. Until there is no movement detected and the pre-set switch off delay time has elapsed, the detector resumes to work according to the previous operation mode set by knobs or IR. To press the push button (≤1sec) during the light manual on period will activate the manual light off function (working as Case 1).

Remark: Push button can be connected between R/S1 (R/S2) and L for manually control DA1 (R/S1) and DA2 (R/S2) respectively. And if connected with R/S terminal, it can control both DA1 (R/S1) and DA2 (R/S2) simultaneously.

3.2.4.2 Max. 10pcs slave detectors can be respectively connected in parallel to the "R/S1", "R/S2" and "R/S" terminal of the master detector OS-384i-DALI-230 to expand detection range if detection range of one OS-384i-DALI-230 does not match the user's desire. Slave detector can only be used to transfer detecting signal to master detector for expanding the detection range, the connected loads will only act according to the pre-set values of master detector.

3.2.5 Manual dimming via external push button

Detector can dim the light level of lighting manually via operating the push button connected to "R/S1", "R/S2" and "R/S" terminal. Press (≥ 2sec) the push button, the light level of the load will change, then release the push button while the light level of the load matches the desired value.
Remark: It will lead to opposite dimming direction if next dimming is carried out. The dimming way is unidirectional and non-recyclable.

3.2.6 Dimming via IR-11DALI remote control

● IR-11DALI is locked: Press " (DIM↑) " or " (DIM↓) " button to start dimming, then again pressing " (DIM↑) " or " (DIM↓) " button to stop dimming while the ambient light level matches user's desire, but the value will not be saved in detector, and it will be dimmed automatically according to last Lux setting value while the light is switched on next time.

● IR-11DALI is unlocked: Press " (DIM↑) " or " (DIM↓) " button to start dimming, then again pressing " (DIM↑) " or " (DIM↓) " button to stop dimming while the ambient light level matches user's desire and the value will be saved in detector as pre-set Lux value, and it will be dimmed to this light level automatically while the light is switched on next time.

3.2.7 Semi-auto mode (Operation with IR-11DALI only)

● Detector enters into semi-auto mode by pressing " (A/M) " button on IR-11DALI.

● Under semi-auto mode, load can only be manually switched on by operating external push button.

● When the load is switched on, it will keep on if the movements are detected constantly. Load will turn off if no movement is detected and the delay time has expired.

● Load can also be manually switched off by operating external push button.

3.3 Wiring

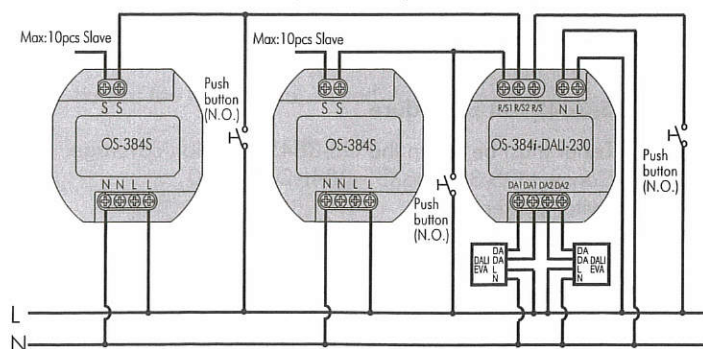3.3.1.1 Normal operation (See FIG.5)

FIG.5

3.4 Installation procedure

3.4.1 Flush mount with European standard junction box

3.4.1.1 Take off decorative frame of OS-384*i* -DALI-230/ OS-384S (See FIG.6).

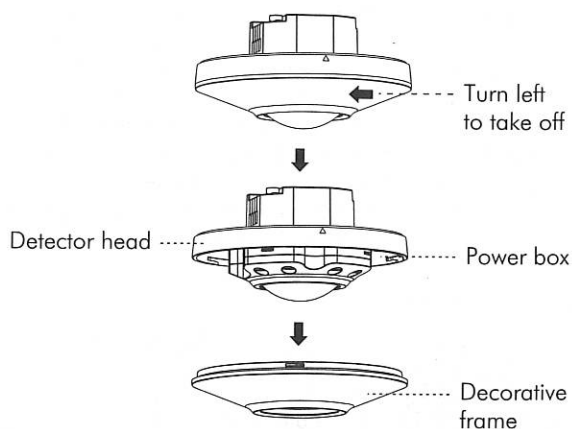Turn left to take off

Detector head

Power box

Decorative frame

FIG.6

3.4.1.2 Pull out AC power cables from European standard junction box (See FIG.7), then strip off 6 - 8mm of cable sheathing for wiring (See FIG.5).
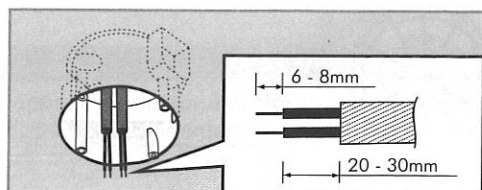

6 - 8mm

20 - 30mm

FIG.7

3.4.1.3 Please refer to illustration of FIG.8 for correct wiring and fix the power box into European standard junction box with 2pcs screws (See FIG.8).
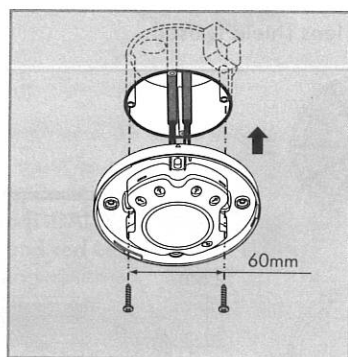

60mm

FIG.8

3.4.1.4 Fix the decorative frame (See FIG.6).
3.4.1.5 Restore the power supply.

3.4.2 Flush mount with power box cap SP-93 (optional purchase)

3.4.2.1 To install the detector, please drill a hole with diameter of 78mm on ceiling board and keep the power cable outside. Please strip off 6 - 8mm of cable sheathing for wiring (See FIG.9).
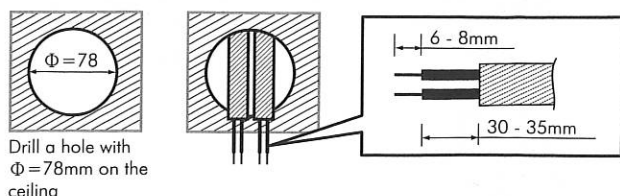

$\Phi = 78$

Drill a hole with $\Phi = 78$mm on the ceiling

6 - 8mm

30 - 35mm

FIG.9

3.4.2.2 Use a screwdriver to break the rubber gasket on SP-93, then feed cables through it (See FIG.10).
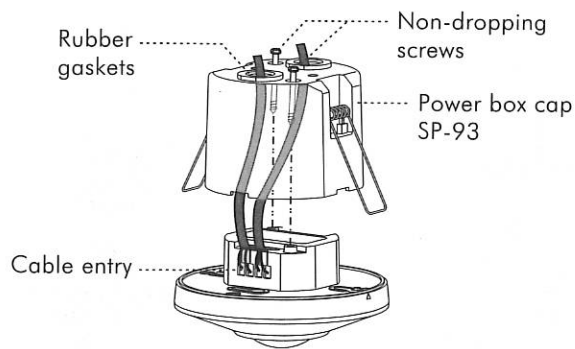3.4.2.3 Please refer to illustration of FIG.5 for correct wiring and then screw the SP-93 tightly.

Rubber gaskets

Non-dropping screws

Power box cap SP-93

Cable entry

FIG.10

3.4.2.4 Close up detector's two spring clips and insert the detector into the drilled hole on ceiling (See FIG.11).

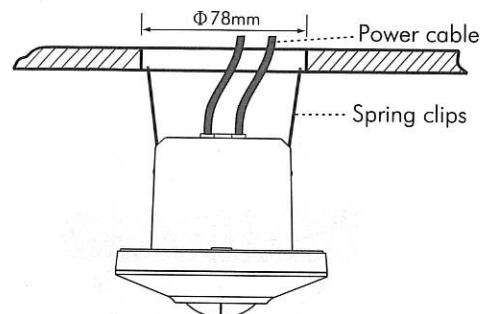
Φ78mm

Power cable

Spring clips

FIG.11

3.4.2.5 Restore the power supply.

3.4.3 Surface mount with junction box JB-42 (optional purchase)

3.4.3.1 There are 4 pairs of knockouts with various distances from 56mm to 80mm on the bottom cover of combined junction box JB-42 can be selected for different mounting applications (See FIG.11-A). Select two same figures on both ends for the corresponding distance for fixing (See FIG.11-B).

A

Knockouts

80 70
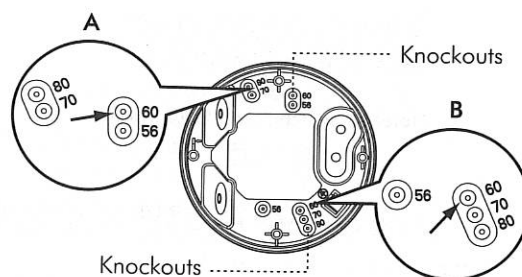
60 56

B

56

60 70 80

Knockouts

FIG.11-A

NO.	A	B	The distance between A and B
1	56	56	56mm
2	60	60	60mm
3	70	70	70mm
4	80	80	80mm

FIG.11-B

3.4.3.2 To feed AC power cables through the side of junction box, please use the cutting pliers to break the cable entry knockouts on the side of junction box, then feed cables through it. Strip off 6 - 8mm of cable sheathing for wiring (See FIG.12).
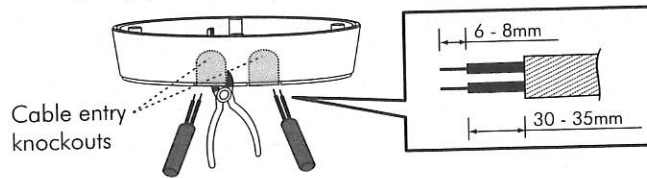

Cable entry knockouts

6 - 8mm
30 - 35mm

FIG.12

3.4.3.3 Choose proper knockouts to fix the junction box JB-42 on the surface of ceiling board with 2pcs wood screws attached with rubber washers (See FIG.13).
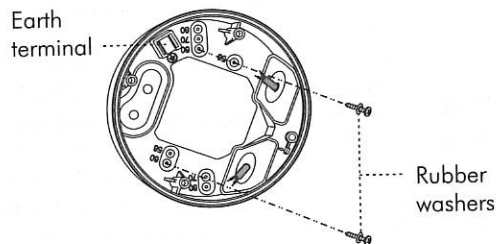

Earth terminal

Rubber washers

FIG.13

3.4.3.4 Refer to wiring diagrams for correct wiring connection (See FIG.5). There is a square hole in the fixing plate, when you put the fixing plate into the junction box, please fit the fillister to the junction box's protrusion (See FIG.8), then fix the detector head on the power box following FIG.13 and assemble them with the attached 4pcs non-dropping screws.
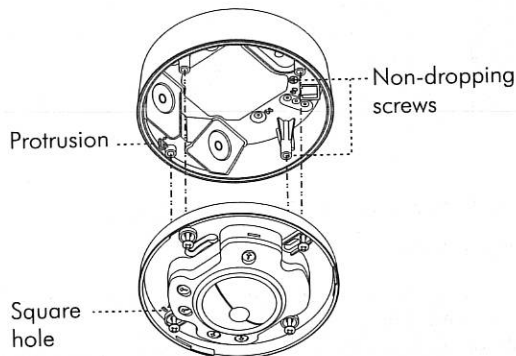

Non-dropping screws

Protrusion

Square hole

FIG.14

3.4.3.5 Cover back the detector's decorative frame and restore the power supply.

4 OPERATION AND FUNCTION

4.1 Lux1, Lux2, STBY, STBY% and Time knobs
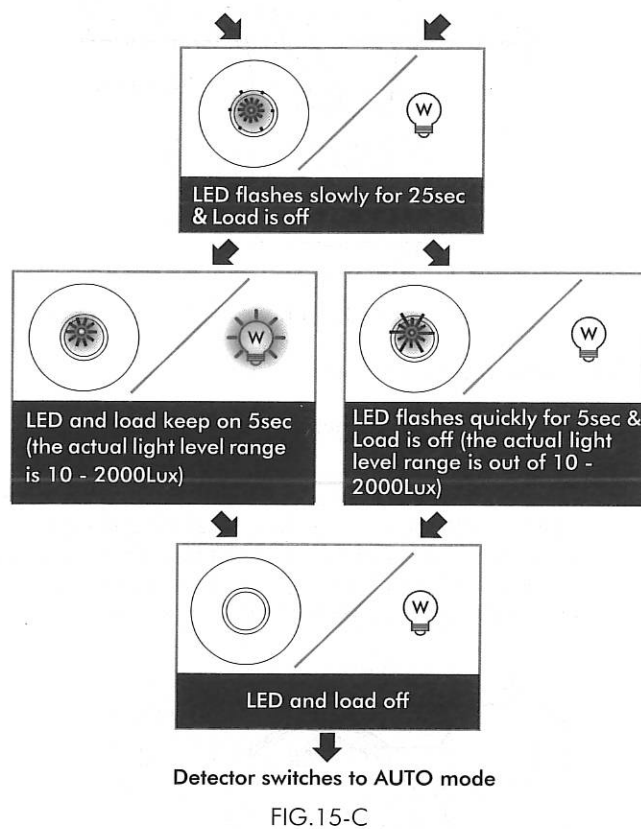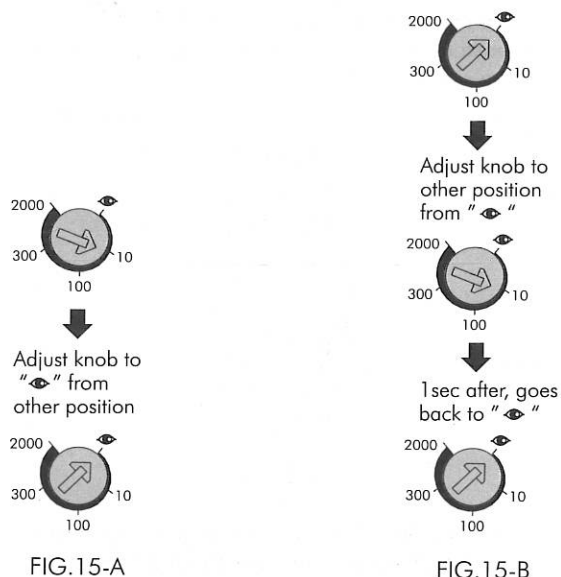### (OS-384S has only Meter knob)

Knob	Function	Knob setting
Time (5m, 10m, 20m, 40m, 1m, 60m, Test)	Set delay off time for lighting	Range: Approx. 1min to 60min Test : Test mode (Load and red LED will be 2sec on, 2sec off)
Lux1 (10, 100, 300, 2000)	Set the light value for switching on DA1	Range : Adjustable from approx. 10 to 2000Lux. (learn): The actual ambient light level (10 - 2000Lux) can be read in.
Lux2 (50%, 75%, 25%, 100%)	Set the light value for switching on DA2	Range : Adjustable from about 25% to 100%. Remark : Lux2 value is automatically calculated as follows: Lux2=Lux1value ×Lux2 preset percentage value
STBY (10m, 15m, 5m, ∞)	Set load on time in standby mode	3 precise adjustments: 5min, 10min, 15min, plus ∞.
STBY% (10%, 20%, OFF, 30%)	Set load illumination in standby mode	3 precise adjustments: 10%, 20%, 30% and OFF (Load is off in standby mode)
Meter (- +) (OS-384S only)	Set the range of detection	Range: Adjustable from approx. "-" (Φ2m) ~ "+"(Φ8m)

4.2 Lux learning function with knob

Learning procedure:

4.2.1 Adjust the knob to " 👁 " when the ambient light level matches with the desired value (See FIG.15-A).

4.2.2 When the knob is set to " 👁 " originally, it should be adjusted to other position more than 1sec, then goes back to " 👁 " (See FIG.15-B).

4.2.3 Then the load is off. red LED starts to flash slowly indicating entering into learning mode. Learning will be completed within 25 seconds. Afterwards, the red LED and load will keep on 5sec or red LED flashes quickly for 5sec and load is off to confirm successful learning (See FIG.15-C).

4.2.4 After learning procedure, the detector returns to AUTO mode with red LED and load being off.

Adjust knob to " 👁 " from other position

FIG.15-A

Adjust knob to other position from " 👁 "

1sec after, goes back to " 👁 "

FIG.15-B

LED flashes slowly for 25sec & Load is off

LED and load keep on 5sec (the actual light level range is 10 - 2000Lux)

LED flashes quickly for 5sec & Load is off (the actual light level range is out of 10 - 2000Lux)

LED and load off

Detector switches to AUTO mode

FIG.15-C

NOTE

- Only Lux1 has Lux learning function.
- When the actual light level is out of the range 10 - 2000Lux, detector will learn 25sec, then the red LED flashes quickly for 5sec. When the actual light level is below 10Lux, Lux value is set to 10Lux, or is above 2000Lux, Lux value is set to 2000Lux.
- Installer should be away from the detector to avoid affecting the luminous flux that reaches the detector when learning Lux value.

4.3 Usage of lens shield

4.3.1 OS-384i-DALI-230/ OS-384S has provided 2 lens shields for masking the undesired detection area. Each lens shield has 3 layers (Layer A / Layer B / Layer C), each layer includes 6 small segments and each small segment can cover 30° detection angle. For example, install the detector at 2.5m height, the detection range can reach up to 1m diameter if the two complete lens shields have been used, and up to 4m diameter if the A & B layers of two lens shield has been used, and up to 6m diameter if only the A layer of two lens shield has been used, and up to 8m diameter if no lens shield has been used.

FIG.16

● The shadow part of the lens shields in the FIG.16 is referring to the cut off parts.

4.3.2 After user choosing the desired detection area, the redundant lens shield should be eliminated.

4.3.3 Fixing lens shield: There is circular hook on the back of the decorative frame and the lens shield is designed with a circular groove. The lens shield can be fitted by joining the groove of lens shield with its corresponding hook on the decorative frame (See FIG.17).
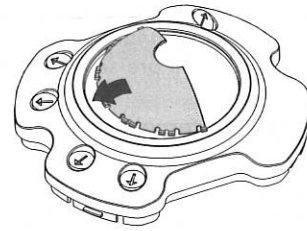

FIG.17

4.4 Walk test (Lux setting is inactive)

The purpose of conducting walk test is to check and adjust detection coverage. Set Time knob to "Test", then conducting a walk test.

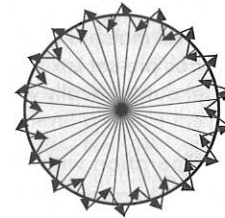| NOTE |
|---|
| It takes approx. 60sec for detector to warm up after power is supplied, then detector enters into normal operation to carry out a walk test. |

FIG.18

4.4.1 OS-384i-DALI-230 test procedure

4.4.1.1 Tester must be within the detection coverage.

4.4.1.2 Switch power on.

4.4.1.3 OS-384i-DALI-230 takes approx. 60sec to warm up with load and red LED or green LED on, then turns off after warming up time.

4.4.1.4 Walk from outside across to the detection pattern until red LED or green LED turns on for approx. 2sec then off, the next trigger should be 2sec interval (See FIG.18).

4.4.1.5 Adjust lens shield for desired detection range.

4.4.1.6 Repeat step 4.4.1.4 and 4.4.1.5 until it meets user's demands.

4.4.2 OS-384S test procedure

4.4.2.1 Tester must be within the OS-384S detection coverage.

4.4.2.2 Connect OS-384S to OS-384i-DALI-230.

4.4.2.3 Switch power on.

4.4.2.4 OS-384S takes approx. 60sec to warm up with load on, then turns off after warming up time.

4.4.2.5 Walk from outside across to the detection pattern until load turns on for approx. 2sec then off, the next trigger should be 2sec interval (See FIG.18).

4.4.2.6 Adjust lens shield for desired detection range.

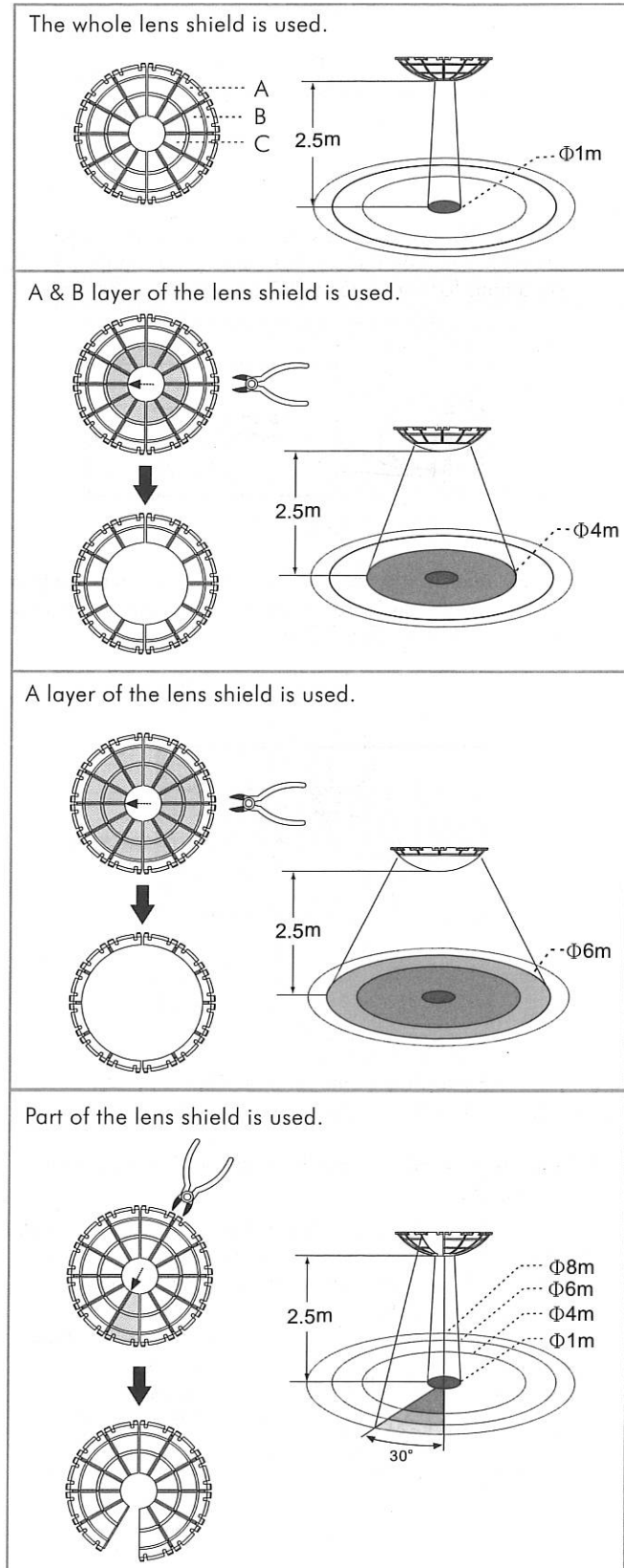4.4.2.7 Repeat step 4.4.2.5 and 4.4.2.6 until it meets user's demands.

5 TROUBLE SHOOTING

When OS-384i-DALI-230/OS-384S works abnormally, please check assumptive problems and suggested solutions in below table that will hopefully solve your problem.

Problem	Possible cause	Suggested solution
Load does not turn on	1. No power is supplied. 2. Incorrect wiring. 3. Incorrect Lux knob setting. 4. Malfunctioned load.	1. Switch on the power. 2. Connect the load referring to the wiring diagrams (See FIG.5 - FIG.6). 3. Set Lux knob to "2000" and check if the load will be on. 4. Replace with a new one.
Load does not turn off	1. Incorrect time knob setting. 2. Detector is nuisance triggered. 3. Incorrect wiring.	1. Set the time knob to a shorter time and check if the load will be off. 2. Keep away from the detector while doing the walk test. 3. Check if the power and load connect incorrectly.
LED does not turn on	1. Time knob is not set to "Test". 2. Exceed the effective detection coverage.	1. Set the time knob to "Test" to check if LED will be on. 2. Walk within the effective detection coverage (Φ8m).
Dimmer function is invalid.	1. Incorrect wiring. 2. Malfunctioned dimmable electronic ballast or LED driver.	1. Connect cables referring to the wiring diagrams (See FIG.5 - FIG.6). 2. Replace with a new electronic ballast or LED driver.
OS-384S can't enlarge detection range when it's connected to master detector	1. Master detector and slave detector are connected incorrectly. 2. Master detector has the incorrect settings, so that the connected load can't be switched on.	1. Connect cables referring to the wiring diagrams. 2. Adjust the settings of Time & Lux for switching on the connected load depending on detector's triggering in such condition.
Nuisance triggering	There are heat sources, highly reflective objects or any objects which may be swayed in the wind within the detection coverage.	Avoid aiming the detector toward any heat sources, such as air conditioners, electric fans, heaters or any highly reflective surfaces.Make sure there are no swaying objects within the detection coverage.

6 OPTIONAL ACCESSORY

6.1 It is strongly recommended to purchase our high quality IR remote controller IR-11DALI for easy and safe setting operations on OS-384i-DALI-230.
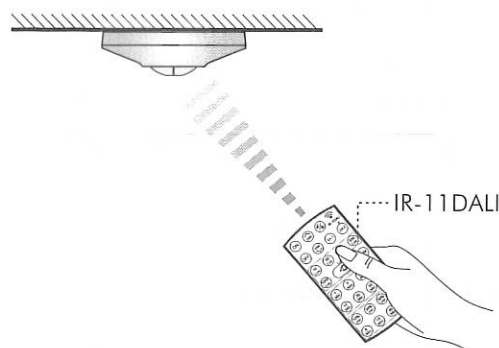

FIG.19

6.2 IR remote control function:

Button	Function
ON	**To set load on for 8hrs** ● By pressing "(ON)" button, the load of detector will be turned on for 8hrs. ● Load will be turned off after 8hrs and return to auto mode. Or press "(ON)" button again to exit this "8hrs on mode" during this period, detector will return to auto mode. Or switching off power supply of presence detector for 5sec and re-supply it again to lead detector to auto mode. ● Load can be led to off mode by pressing "(OFF)" button under on mode. ● Pressing "(ON)" is inactive under lock mode. ● Under unlocked status ,by pressing "(DA1)"or "(DA2)" button firstly to select desired channel for value setting, then press "(ON)" button to switch load on for 8hrs. If press "(ON)" button directly without selecting channel, both DA1 and DA2 will keep on 8hrs simultaneously.
OFF	**To set load off for 8hrs** ● By pressing "(OFF)" button, the load connected to detector will be turned off for 8hrs. ● Detector will return to auto mode after 8hrs. Or press "(OFF)" button again to exit this "8hrs off mode" during this period, detector will return to auto mode. Or switching off power supply of presence detector for 5sec and re-supply it again to lead detector to auto mode. ● Load can be led to on mode by pressing "(ON)" button under off mode. ● Pressing "(OFF)" is inactive under lock mode. ● Under unlocked status by pressing "(DA1)"or "(DA2)" button firstly to select desired channel for value setting, then press "(OFF)" button to switch load off for 8hrs. If press "(OFF)" button directly without selecting channel, both DA1and DA2 will turn off for 8hrs simultaneously.

Button	Function

To lock/unlock IR-11DALI buttons

- Detector load on (except 8hrs on mode): By pressing "🔒" button, if load switches off and detector's LED flashes quickly for 5sec, meaning the detector is unlocked and enters into IR setting mode. If load keeps on and detector's LED keeps on 5 sec, detector is locked and no adjustments of IR are workable.
- Detector load off (except 8hrs off mode): By pressing "🔒" button, if load switches on / off sequentially and detector's LED flashes quickly for 5sec, meaning the detector is unlocked and enters into IR setting mode. If load keeps off and detector's LED keeps on for 5sec, then the detector is locked.
- Detector will be locked automatically when power resupply after power went off.
- When all IR settings were finished without pressing "🔒" button, the detector will be locked automatically after 2min if no buttons were pressed.
- Under locked status, no buttons are workable (except "DA1" & "DA2" & "DIM" & "DIM" buttons).

To dim the brightness of light

- IR-11DALI is locked: Press "DIM" or "DIM" button to start dimming, then pressing "DIM" or "DIM" button to stop dimming while the ambient light level matches user's desire, but the value will not be saved in detector, and it will be dimmed automatically according to last Lux setting value while the lighting is switched on next time.
- IR-11DALI is unlocked: Press "DIM" or "DIM" button to start dimming, then pressing "DIM" or "DIM" button to stop dimming while the ambient light level matches user's desire and the value will be saved in detector for pre-set Lux value, and it will be dimmed to this light level automatically while the lighting is switched on next time.
- Under unlocked status, by pressing "DA1" or "DA2" button firstly to select desired channel for value setting, then press "DIM" or "DIM" to dim the light. If press "DIM" or "DIM" button directly without selecting one channel, both DA1 and DA2 can dim the light simultaneously.
- Remark: "DIM" is to increase the brightness of load. "DIM" is to decrease the brightness of load.

Ex-changing auto mode and semi auto mode

- Under unlocked status, by pressing "DA1" or "DA2" button firstly to select desired channel for value setting, then press "A/M" to select auto or semi-auto mode. If press "A/M" button directly without selecting one channel, both DA1 and DA2 can select auto or semi-auto mode simultaneously.
- The first time pressing the "A/M" button, LED will flash quickly for 2 sec. to indicate detector entering into Auto mode. Press "A/M" button one more time, LED will keep on 2 sec. to indicate detector entering into Semi-auto mode.

To reset settings on presence detector

By pressing "RESET" button aiming to the detector, all settings on presence detector will go back to potentiometers' settings.

To adjust Lux value

- Under unlock mode, press "DA1" or "DA2" firstly to select desired channel for value setting. Then, press corresponding button to selected light level threshold is set to presence detector for switching on the connected load.
- Users can set the desired Lux value through pressing "+" button.

To read-in the actual ambient light level

- Actual ambient light level can be read-in as threshold for switching the connected load, if the provided Lux values do not match user's requirement. The steps are as below: Press "👁" button till detector's red LED flashing to enter into learning mode, learning time is 10sec. Then the actual ambient light level is read-in confirmed by both load and LED turn on for 5sec to indicate IR-11DALI learning successfully and then turn off. Afterwards, it returns to Auto mode. **Note:** If the ambient light level is out of the range of 10 - 2000Lux, detector will learn for 10sec, then LED flashes quickly for 5sec, and the alternative of 10Lux or 2000Lux value will be stored depending on under 10Lux or above 2000Lux value.
- "👁" is only valid for DA1 setting.

DA1 or DA2 setting selection

- By pressing "DA1" under unlock mode to select DA1 for corresponding value setting.
- By pressing "DA2" under unlock mode to select DA2 for corresponding value setting.
- The settings for "DA2" is invalid while detector has only one channel.

Set delay off time of DA1 / DA2

Under unlock mode, press "DA1" or "DA2" firstly to select desired channel for value setting. Then, press corresponding button to set the exactly delay off time of DA1 or DA2.

Users can set the desired delay off time of DA1 or DA2 through pressing "+" button.

(+ button)

- Under unlocked status, by pressing "+" button to sum the same kind value, one time only during each setting period. Take setting Lux value for instant, press "10 Lux" + "+" + "50 Lux", the final value is 60Lux.
- "+" is only valid for setting value of Lux / Time / STBY / STBY%.
- "+" is invalid without pressing any values of Lux / Time / STBY / STBY% first.

Test mode

- By pressing "TEST" button to enter into Test mode, it is confirmed by detector's LED flashing for 2sec. Walking through the detection coverage, both load and detector's LED turn on 2sec once detector is triggered (Reaction is regardless of Lux value).

Set load on time in standby mode

- Under unlock mode, press "DA1" or "DA2" firstly to select desired channel for value setting. Then, press corresponding button to set the desired load on time of DA1 or DA2.
- Users can set the desired load on time of DA1 or DA2 through pressing "+" button.

Button	Function
(STBY ON/OFF)	**Switch off load in standby mode** ● Under unlock status, By pressing "(STBY ON/OFF)" firstly, detector enters into standby on mode, with detector's LED flashing quickly for 2sec and load on. Then, press it again, detector enters into standby off mode, with detector's LED keeps on for 2sec. ● Under standby on mode, load will keep on with standby illumination (according to STBY% setting) when detector's delay time has expired. Under standby off mode, load will switch off when detector's delay time has expired. ● Under unlocked status, by pressing "(DA1)" or "(DA2)" button firstly to select desired channel for value setting, then press "(STBY ON/OFF)" to select standby on or off mode. If press "(STBY ON/OFF)" button directly without selecting channel, both DA1 and DA2 are set simultaneously.
(10% STBY) (30% STBY) (50% STBY)	**Set illumination of load in standby mode** ● Under unlock mode, press "(DA1)" or "(DA2)" firstly to select desired channel for value setting. Then, press corresponding button to set the desired load on illumination for standby mode of DA1 or DA2. ● Users can set the desired load on illumination for standby mode of DA1 or DA2 through pressing "(+)" button.

6.3 Trouble shooting of IR-11DALI

When remote controller IR-11DALI works abnormally, please check assumptive problems and suggested solutions in following chart that hopefully solve your problem.

Problem	Possible cause	Suggested solution
Detector fails to receive signal	1. Exceed the transmission range. 2. Low battery power. 3. Detector works abnormally.	1. Operate within transmission range (<10m), and ensure IR-11DALI aiming directly to the detector. 2. Replace a new battery. 3. Check the trouble of detector, then refer the TROUBLE SHOOTING of detector manual for repairing.
No signal	1. Low battery power. 2. Press two or more buttons once. 3. The battery insulation sheet is not took out.	1. Replace a new battery. 2. Press one button once. 3. Take out the battery insulation sheet.
Fail to transmit signal	In locked mode.	Unlock IR-11DALI.