

Set up for Brand new unaddressed luminaires

The Elkay easyDALi PIR has the ability to do basic setup of brand new luminaires. With the **'Add new luminaires'** function, group and scene information can then be programmed into the ballast within the luminaire. When new luminaires are addressed for the first time you must then complete the **'Add group to pre-addressed luminaires'**. N.B. If there are existing pre-programmed luminaires already on the network skip back to **'Setting Group Mode'** first before returning to this section.

To put the Elkay DALI PIR into 'Add new luminaires' mode:

1. You must turn lights **OFF** first with the remote to operate and program in this mode. To do this, point the remote control at the Elkay easyDALi PIR & press the override off button. While in override off the Elkay easyDALi PIR LED flashes white.
2. Set the Dipswitch with the group number you wish to use for the PIR.
3. Set the remote control to installer by pressing the hidden installer button inside the battery compartment, the remote control LED illuminates red.
4. Point the remote control at the Elkay easyDALi PIR & press button '2' at the bottom of the remote control while the remote LED is red. The Elkay easyDALi PIR will now search for uncommitted DALI ballasts and program an unused DALI short address. **An uncommitted luminaire will flash up to 5 times.** During this search the blue signal LED on the Elkay easyDALi PIR will flash repeatedly.
5. When the PIR flashes red the search is completed and any correctly programmed luminaires on the DALI network will be unaffected. Once completed the newly setup luminaires can have a group (see **Add group to, pre-addressed luminaires**) and a basic set of scenes (see **'Set Scenes'**) programmed into their ballasts.

Any correctly programmed luminaires on the DALI network will be unaffected. Once completed the newly setup luminaire(s) can have a group (see **Add group to pre-addressed luminaires.**) and a basic set of scenes (see **'Set scenes'**) programmed into their ballasts.

Please note these instructions must be read in conjunction with the Remote Control instructions

Set scenes

When a new DALI luminaire is purchased the internal ballast has no scene information programmed. The Elkay DALI PIR can configure a basic set of scenes into the ballasts of luminaires that have been setup using the **'Add group to pre-addressed luminaires'** function. Basic scene setup is sixteen scenes that range in brightness from minimum to maximum illumination.

All luminaires on the network with the PIRs set group will have their ballast updated with the basic scene set.

Setting scenes on the Elkay easyDALi PIR will give a basic 16 stepped levels of brightness

When replacing another manufacturers DALi PIR with an Elkay easyDALi PIR it is essential that the group number is known and set via the dip switches first. If you want to keep pre-programmed previous scene information then DO NOT follow **'Set Scenes'** below.

1. You must turn lights **OFF** first with the remote to operate and program in this mode. To do this, point the remote control at the Elkay easyDALi PIR & press the override off button. While in override off the Elkay easyDALi PIR LED flashes white.
2. Set the Dipswitch with the group number you wish to use for the PIR.
3. Set the remote control to installer by pressing the hidden installer button inside the battery compartment, the remote control LED illuminates red.
4. Point the remote control at the Elkay easyDALi PIR & press button '3' at the bottom of the remote control while the remote LED is red. The Elkay easyDALi PIR will now flash green 16 times per ballast and give a blue flash when scene set is complete. This process repeats until all ballasts in the group are set with scenes.

Walk Test

Walk test can be used to test and setup the Elkay easyDALi PIR sensitivity by moving in & out of the PIRs detection range.

The signal LED on the PIR indicates presence by flashing blue and can be used as a basic walk test. During walk test detection the luminaires will be illuminated to full brightness then after 10 seconds with no presence detected the luminaires will dim but not go off.

To put the Elkay DALI PIR into luminaire walk test:

1. You must turn lights **OFF** using the remote first to operate and program in this mode. To do this, point the remote control at the Elkay easyDALi PIR & press the override off button. While in override off the Elkay easyDALi PIR LED flashes white.
2. Set the remote control to installer mode by pressing the hidden installer button inside the battery compartment, the remote control LED illuminates red.
3. Point the remote control at the easyDALi PIR & press the 'Set' button, this will initiate luminaire walk test mode.
4. The LED on the easyDALi PIR will be illuminated blue while presence is detected and the luminaires will be set to full brightness. The PIR will also flash red and green to indicate Walk test mode is initiated.
5. Leaving the easyDALi PIR detection zone for more than 10 seconds is indicated by the luminaires being dimmed & the LED being extinguished.

Walk test mode will be exited after 10 minutes or by pointing the remote at the easyDALi PIR and pressing any remote control button. When the walk test is completed point the remote at the easyDALi PIR & press the override off button to return to normal. The remote control will automatically exit install mode after approximately 2 minutes from the last button press or can be taken out of installer mode immediately by re-pressing the hidden installer button.

Table 2 - PIR Feedback Colours and Flash Status

The PIR flashes several feedback colours via its LED to let you know what state it is in. The following table indicates the states that it is showing after installation.

Mode	PIR Colour	State
PRESENCE Lights OFF	No Flash	No Flashes at PIR indicates no detection and lights will be OFF. There are no absence wall switches involved in this circuit.
PRESENCE Lights ON		When operating in normal presence mode sensor LED blinks BLUE when there is presence detection and presence detected.
PRESENCE OFF by Remote		In presence mode even if lights are switched off by Remote control then sensor will flash white (even if presence not detected i.e. no one is in the room). This is to let you know the system has been switched off by remote control.
ABSENCE Lights ON		If there are wall switches in this circuit wired into the A A position and the wall switch is operated, the LEDS on the sensor will blink BLUE then RED to indicate presence detected and absence mode is set.
ABSENCE Lights OFF		Sensor continues to blink RED with lights off to indicate sensor is in absence mode (even if presence not detected. i.e. no one is in the room). If lights are switched off by Remote control and are in absence mode then sensor will also flash RED (even if presence not detected)
CORRIDOR Option		In corridor option a greenish yellow flash will indicate presence detected and in corridor option.
CORRIDOR Option (Hibernation)		PIR is in Corridor Option and 2 white flashes indicate it has been switched off completely by remote (Hibernation). When the remote ON/OFF button is re-pressed the PIR will resume in corridor mode.
Remote Button Press		When any button is pressed on the Remote Control a GREEN flash confirms acceptance at PIR. (Note Green flashes need to be counted when Selecting Room and Corridor Options- see Table X on the Remote Control Instructions)

Calculating maximum ratios of PIRs to ballasts in a single network

Each PIR is capable of running 64 ballasts (although in reality that will not be sensible practice). In order to calculate the maximum numbers of PIRs and luminaires that can be on the same network, use the following equation.

$$\frac{180 - (L \times 2)}{14}$$

where L = number of luminaires

Worked Example 1
20 ballasts

For example 20 ballasts x 2 =40
180-40 = 140
 $\frac{140}{14} = 10$
14
Therefore maximum 10 detectors for 20 ballasts

Worked Example 2
40 ballasts

40 ballasts x 2 =80
180-80 = 100
 $\frac{100}{14} = 7$ (rounded up)
14
Therefore maximum 7 detectors for 40 ballasts

STAIRWELLS

An additional feature of the Corridor Mode option makes it possible to have more than one group switched by a PIR. This means that luminaires in the current group or floor can be selected as well as other floors in the stairwell. Simply see the ‘**Add group to pre-addressed luminaires**’ and select YES for every luminaire you wish to be controlled in the stairwell. This flexibility allows you to maximise energy savings in stairwells.

Positioning OF THE DETECTOR

CAREFUL POSITIONING IS ESSENTIAL TO OBTAIN OPTIMUM PERFORMANCE

Use the detection range to determine a suitable location for the sensor. When locating the position of the units, ensure the sensor is not subjected to bright or direct sunlight or in areas with high reflective surfaces. Do not site units on a vibrating surface, or near forced air heating and ventilation. They should not be placed within 1 metre of the load. Sensors work when objects move across their field of view. Position the sensor where people will be detected walking across the zones rather than towards the zones identified in PIR sensor detection pattern. Adjust sensitivity to suit the area that the sensor has been installed in.

FLUSH MOUNTING

Void Depth 70mm minimum
Cut Out Diameter 65mm