

Casambi units and motion sensors

Examples of how to use motion sensors with CBU-ASD and CBU-TED

Version 1.2

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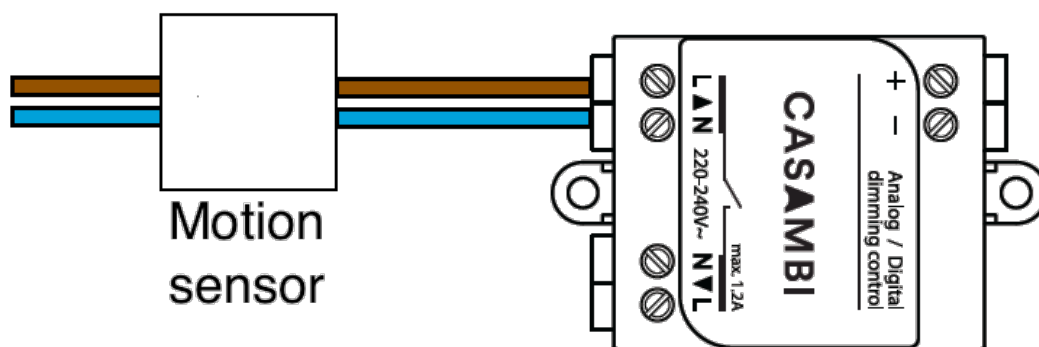
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Casambi CBU-ASD and CBU-TED units can be used with motion sensors that have switched mains voltage output. The idea is, when CBU-ASD or CBU-TED is powered on by the motion sensor, it can control scenes or lamp modes with Smart Switching feature.

Some motion sensors with relay output may have a protection circuitry for the relay contact. One typical example of such protection circuitry is so called RC network, which main purpose is to suppress an arc between separating contacts. This kind of protection circuitry, however, has a leakage current which may be strong enough to disturb the operation of CBU-ASD and CBU-TED. For this reason using such motion sensors with these products is not advised.



The Smart Switching feature works so, that when Casambi unit CBU-ASD or CBU-TED is powered on and off it can control other Casambi units in the same network.

There are two installation examples below.

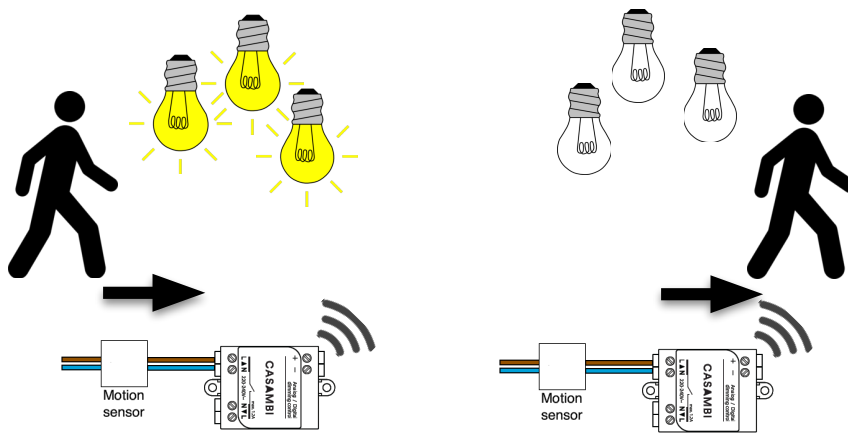
Example one “Control scenes”:

A room with four Casambi enabled luminaires and a motion sensor that is connected to an additional Casambi unit. Total of 5 Casambi units.

1. Power on all five Casambi units, four luminaires and the motion sensor. Make sure that the motion sensor keeps the connected Casambi unit powered on for long enough.
2. Create a Casambi network with all units. In the app the CBU-ASD and CBU-TED units will be displayed as normal fixtures even when they are connected to the motion sensor. You can rename the icons for clarification in the Lamps tab.
3. After you have created the network with all the Casambi units, create a scene with all the luminaires that should turn on when motion sensor detects movement.
4. After you have created the scene go back to lamps tab and double tap the CBU-ASD or CBU-TED unit that is connected to the motion sensor to open the editing screen. Make sure that the motion sensor keeps connected Casambi unit powered on during the configuration.
5. Select “Control scenes” from the Smart Switching settings. Then select the scene that was just created. Now the unit attached to the motion sensor will control the scene.

Please see our Casambi app User Guide for more instructions on how to create a scene and how to configure Smart Switching.

After completing the steps above when the Casambi unit is powered on it will turn on the scene (all fixtures will turn on to the level that is defined in the scene settings) and when the power is cut off from the Casambi unit it will turn off the scene. In other words, when motion sensor detects movement and powers the Casambi unit on the luminaires will turn on and when there is no motion detected and the motion sensor cuts the power off from the Casambi unit the luminaires will turn off.



Example 2 “Active/Standby”:

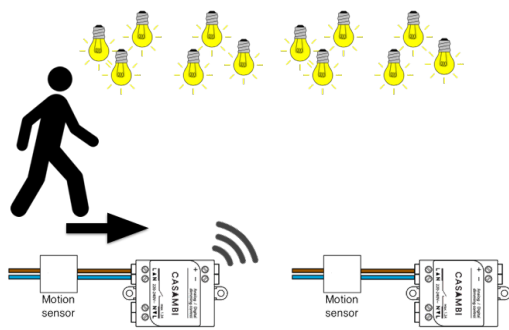
A warehouse with 50 Casambi enabled luminaires and two motion sensors that are connected to Casambi units. The two motion sensors are placed in different ends of the warehouse. The motion sensors should always have the same switch off time settings.

1. Power on all Casambi units and create the network in the same way as in example one.
2. Creating scenes in this case depends on how the lights should be turned on. It is important that the Active and Standby scenes have all the same lamps.
 - If all lights should turn on when either motion sensor detects movement then create three scenes with all lamps in them, *Active scene 1*, *Active scene 2* and *Standby scene*.
 - If only half of the lights should turn on when motion sensor detects movement then create four scenes, *Active scene 1* and *Standby scene 1* with first 25 lamps and *Active scene 2* and *Standby scene 2* with the other 25 lamps.
3. After you have created the needed scenes go back to lamps tab and double tap one of the CBU-ASD or CBU-TED units which are connected to the motion sensor to open the editing screen.
4. Select “Active/Standby” from the Smart Switching settings.
 - Select the *Active scene 1* and the *Standby scene* or
 - Select *Active scene 1* and *Standby scene 1*.

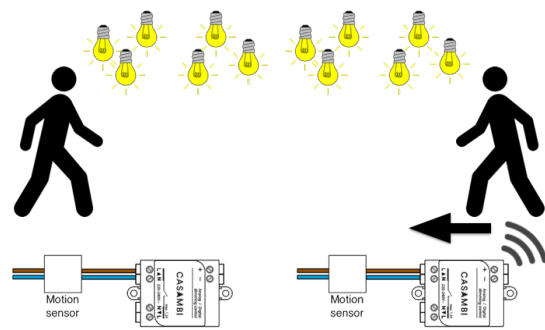
5. Double tap the second CBU-ASD or CBU-TED unit connected to second motion sensor and select "Active/Standby" from the Smart Switching settings.
 - Then select the *Active scene 2* and the *Standby scene* or
 - *Active scene 2* and *Standby scene 2*

Explanation how the motion sensors work after making the above configuration with 3 scenes.

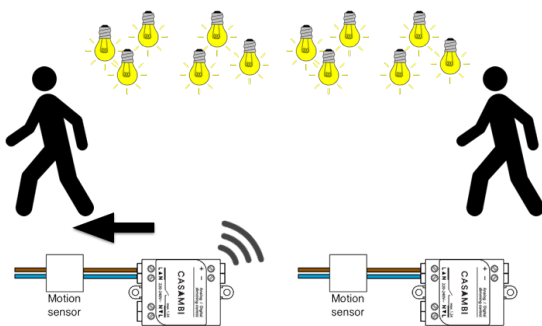
- When the first motion sensor turns on the first Casambi unit it will turn on Active scene 1
- When the second motion sensor turns on the second Casambi unit it will turn on Active scene 2
- When the first motion sensor cuts power from the first Casambi unit it will send a command to all lamps belonging to Active scene 1 to go to Standby scene. Then nothing would happen to luminaires that are controlled by second motion sensor because they belong to Active scene 2.
- When the second motion sensor cuts power from the second ASD it will send a command to all lamps belonging to Active scene 2 to go to Standby scene.



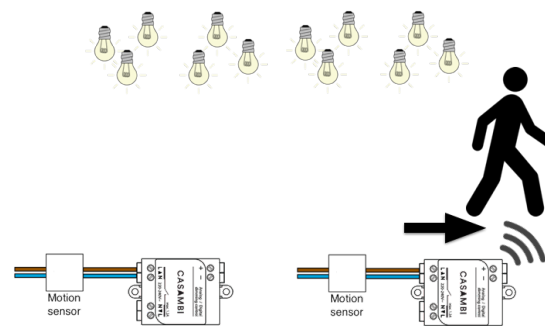
Turn on Active scene 1



Turn on Active scene 2



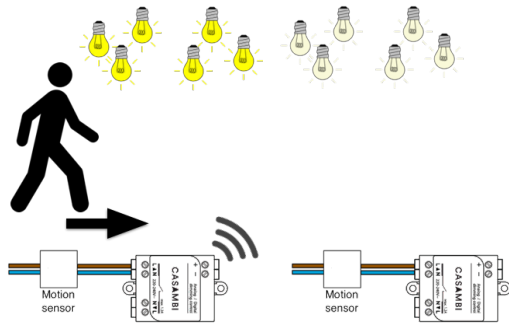
All in Active scene 1 to Standby



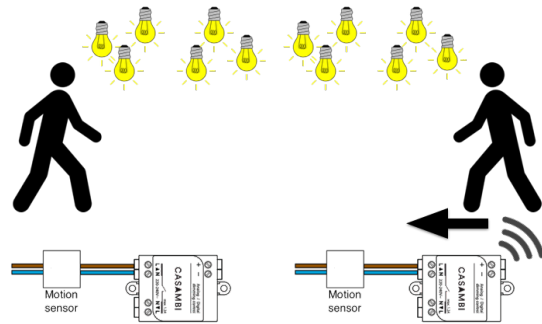
All in Active scene 2 to Standby

Explanation how the motion sensors work after making the above configuration with 4 scenes.

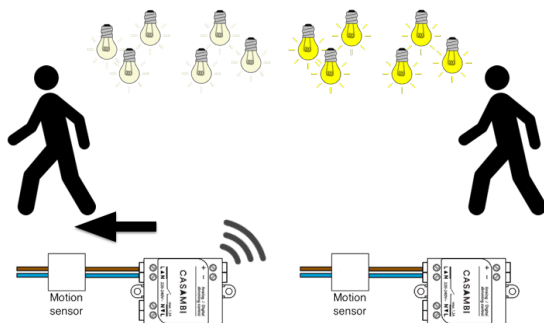
- When the first motion sensor turns on the first Casambi unit it will turn on Active scene 1
- When the second motion sensor turns on the second Casambi unit it will turn on Active scene 2.
- When the first motion sensor cuts power from the first Casambi unit it will send a command to all lamps belonging to Active scene 1 to go to Standby scene 1.
- When the second motion sensor cuts power from the second ASD it will send a command to all lamps belonging to Active scene 2 to go to Standby scene 2.



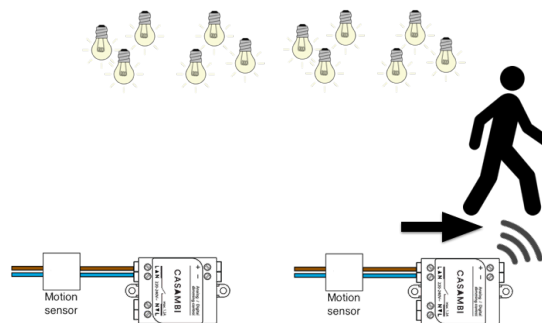
Turn on Active Scene 1



Turn on Active scene 2



All in Active scene 1 to Standby 1



All in Active scene 2 to Standby 2

Please note that when using the Smart Switching feature to control scenes, if a fixture that is part of the scene is changed by some other means, for example dimmed from the Casambi app or a timer changes the luminaire's state, that fixture is no longer controlled by the scene. This means that when the scene is turned off or the Standby scene is activated the luminaire that was changed will not go off or to Standby mode. However, the next time there is motion and the scene is turned on that fixture will be part of the scene again.