Wireless Control System Installation
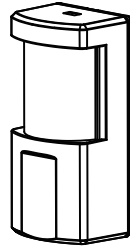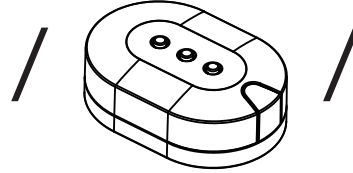
The wireless system includes

One Power Pack 0-10V dimming module + At least one wireless transmitter.
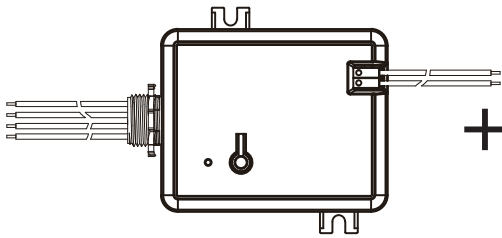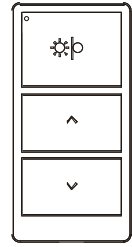

Power Pack 0-10V dimming module   PIR occupancy sensor   Daylight sensor   Manual control dimmer
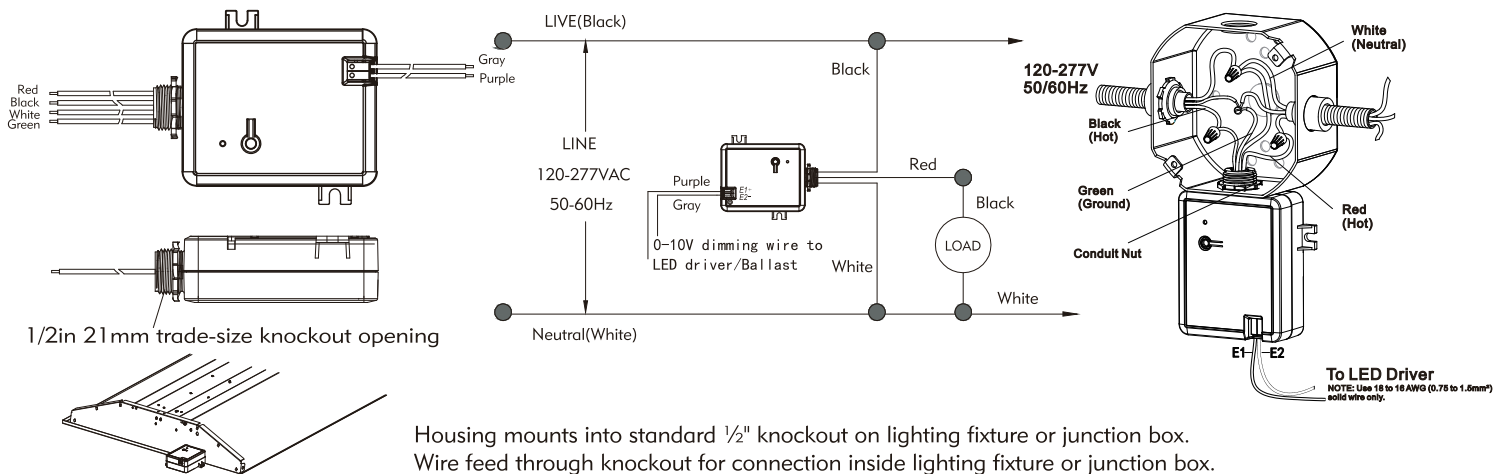
Note:

1. One Power Pack dimming module can be linked with 4 PIR sensors , 5 manual control dimmers , and 1 daylight sensor at most .
2. One PIR sensor / one dimmer / one daylight sensor can control all dimming modules in the RF range , up to 30m .
3. Do not fixed install components before setting up all parameters ideally .

STEP 1: Install Power Pack 0-10V dimming module

Install in center of room to maximize RF coverage.

Wiring Schematic

Red
Black
White
Green

Gray
Purple

LIVE(Black)

Black

120-277V
50/60Hz

White
(Neutral)

LINE
120-277VAC
50-60Hz

Purple
Gray

Red

Black
(Hot)

Red

0-10V dimming wire to
LED driver/Ballast

LOAD

White

Green
(Ground)

Red
(Hot)

Conduit Nut

White

Neutral(White)

E1   E2

To LED Driver
NOTE: Use 18 to 18 AWG (0.75 to 1.5mm²)
solid wire only.

1/2in 21mm trade-size knockout opening

Housing mounts into standard ½" knockout on lighting fixture or junction box.
Wire feed through knockout for connection inside lighting fixture or junction box.

STEP 2: Associate Wireless Transmitters to Power Pack 0-10V Dimming Module

Note : Insure that in the same time there is only this dimming module is being set up in the building , or transmitter from other system maybe linked incorrectly .
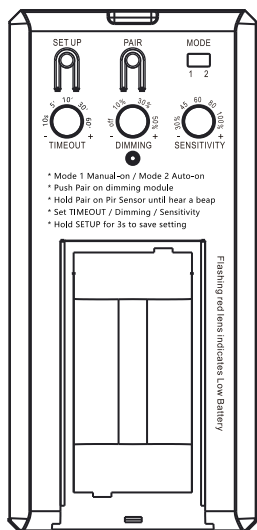
1 Pair the Wireless manualcontroller
with dimming module
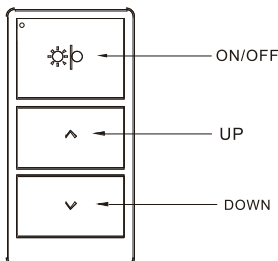
ON/OFF

UP

DOWN

Quick Setup:

1. Push PAIR on Power Pack0-10V dimming module the small led on dimming module will flash quickly
2. Push ON/OFF button for 3s to PAIR with dimming module
You will hear a beep indicate the controller has linked with dimming module
3. Try the buttons to see if light is successfully controlled.

## 2 Pair the PIR sensor to the dimming module

Quick Setup:

Chose Mode 1 Occupancy mode : light need to be manually switched on with manual controller , delay time 30min , automatically off if no people detected in 30min . This mode is usually for meeting room . Mode 2 Auto-on : Light automatically on once detect people , automatically off or go down to dimming level after people leave .

1. Push PAIR on Power Pack 0-10V dimming module , the small led on dimming module will flash quickly .
2. Push PAIR on PIR sensor for 3s.
   You will hear a beep indicate the sensor has linked with the dimming module.
3. Set Timeout: 10s (as test mode) 5min 10min 30min 60min.
   Set Dimming level: Off 10% 30% 50% .After people leave , light will off or dim to this level automatically.
   Set Sensitivity: 30% 45% 60% 80% 100%.
4. Hold SETUP for 3s to save setting , small led light on sensor flash twice indicate set up .

Note: Every time you change settings , DO remember to HOLD SETUP for 3s to save .
Flashing red lens indicates Low Battery / Customized default setting is available

Default Setting :
Timeout : 10min
Dimming : Off
Sensitivity : 100%

(PIR sensor diagram labels)
SET UP PAIR MODE 1 2
10s 5' 10' 30' 60' TIMEOUT +
Off 10% 30% 50% DIMMING
30 45 60 80 100 SENSITIVITY
* Mode 1 Manual-on / Mode 2 Auto-on
* Push Pair on dimming module
* Hold Pair on Pir Sensor until hear a beep
* Set TIMEOUT / Dimming / Sensitivity
* Hold SETUP for 3s to save setting
Flashing red lens indicates Low Battery

3 Pair the daylight sensor to the dimming module
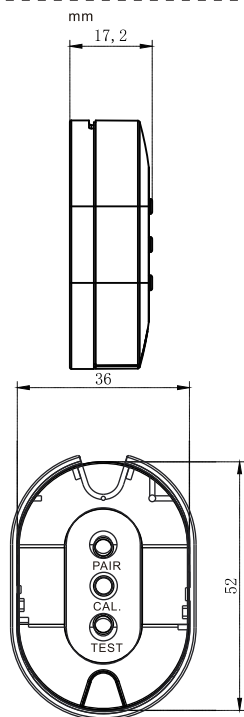
Quick Setup:

1. Push PAIR on Power Pack 0-10V dimming module,the small led on dimming module will flash quickly .
2. Push PAIR for 3s on Daylight Sensor.
   You will hear a beep indicate the sensor has linked with the dimming module.
3. Set lights in room to desired light level with manual controller.
4. Hold CAL. until red light flash to calibrate the daylight sensor .
   The sensor will collect the Current Light Level in room , and dim the light according to this level you calibrate . When you push CAL. , please do not point the transparent hole to strong light or very dark place , it may collect wrong light level . Find a place where is about 1-2m away from window with proper light level you want, point the daylight sensor (the transparent hole side , and don't cover the hole) to window with proper daylight , then hold CAL.until red light flash.
5. Hold TEST until red light flash to enter into test mode.
   Cover the sensor to see if the lights in room dim up , shine the sensor to see if lights dim down . It takes about 10 seconds to dim , if the performance is not that good , repeat last step to CAL. another light level .
6. After calibration , hold TEST for 3s until two small leds (green and red) on sensor flash once to quit test mode . Important , or battery will power off very soon . The sensor will quit test mode after 10 mins automatically .
   After quitting test mode , the sensor will not react and dim lights quickly as test mode .
   Because sun light changes very slowly , so the sensor is designed to react half an hour , so as to guarantee the battery life .

(daylight sensor diagram)
mm
17, 2
36
52
PAIR
CAL.
TEST

Note:

1. If you have several sensors or dimmers need to pair , remember always need to push the PAIR/TEST button on dimming module first , then pair one transmitter a time .
2. You can skip any one of the step if you don't have the corresponding wireless transmitter .
3. Push the PAIR/TEST button on dimming module for 5s , you will hear 4 beeps indicate exit all grouping .

STEP 3: Temporarily mount the sensors

1.Recommended mount location for PIR sensor :
   The mounting height should be between 6ft and 8ft (1.6m to 2.4m) , better beside the door and have a line-of-view of all room occupants (You can add up to 5 sensors to expand the detect range). Do NOT mount behind, or close to any hot object .

2.Recommended mount location for day light sensor :
   Mount the sensor about 2m away from the window , the transparent cover should facing the window , so it can see most natural sunlight . DO NOT mount too close to electric lights .

STEP4 : Permanently locate the sensors

Energy solutions for different space

Area dimming and sensing
For office , classroom , hospital , parking lot...
Switch on/off and dim a group of lights with
wireless manual control dimmer and sensor ,
save additional energy with daylight harvestting .

Dimming Module / Dimmer / Pir Sensor / Daylight Sensor

Install the dimming module in standard junction
box , gather all dimming wire then feed into the
0-10V terminal . Put two wireless dimmer near
the entrance and exit , add a daylight sensor
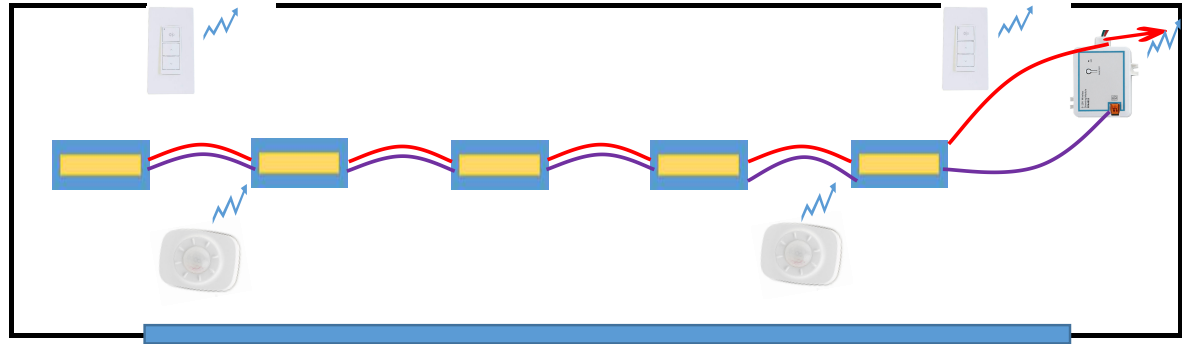near the window to save additional energy .

daylight harvest sensor

dimmer

second dimmer

pir sensor
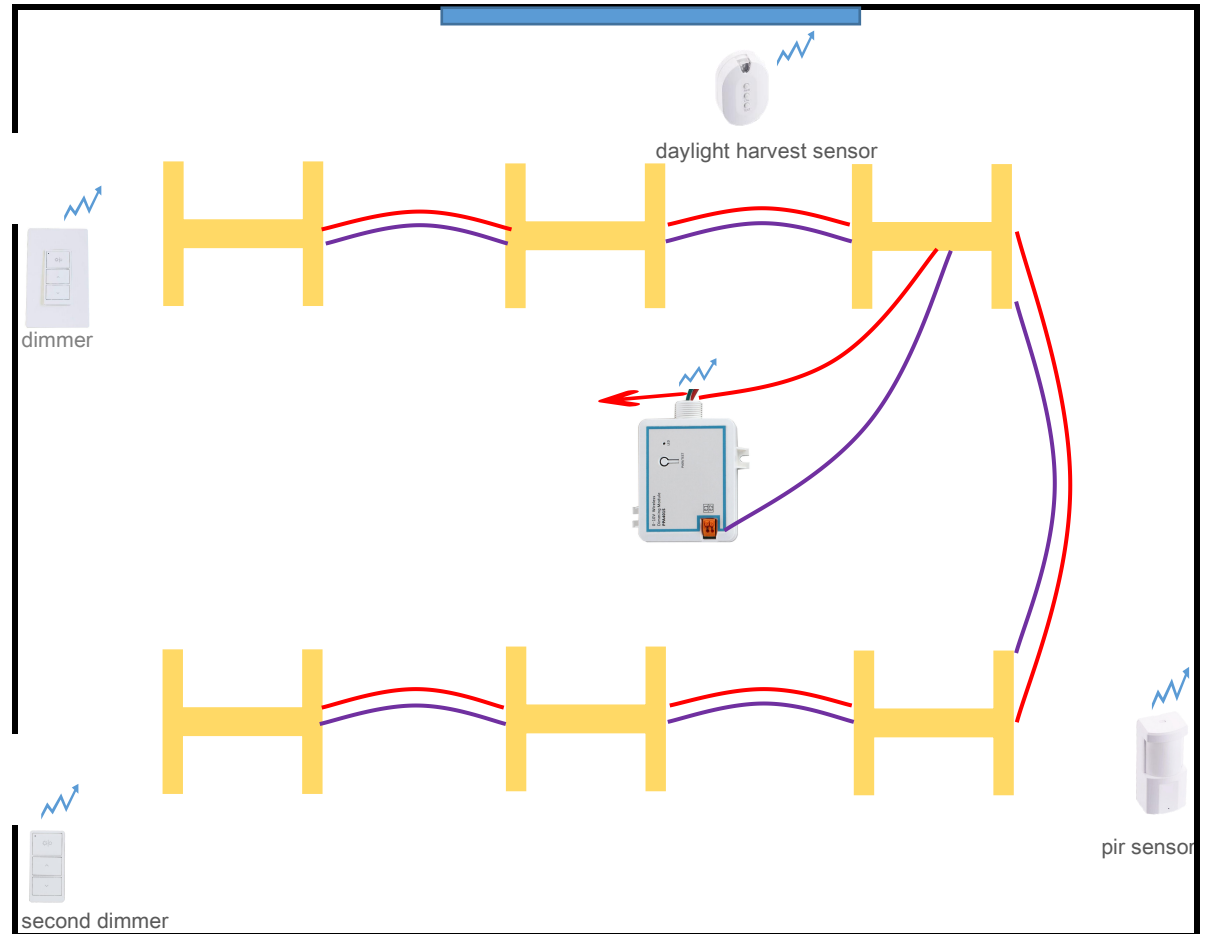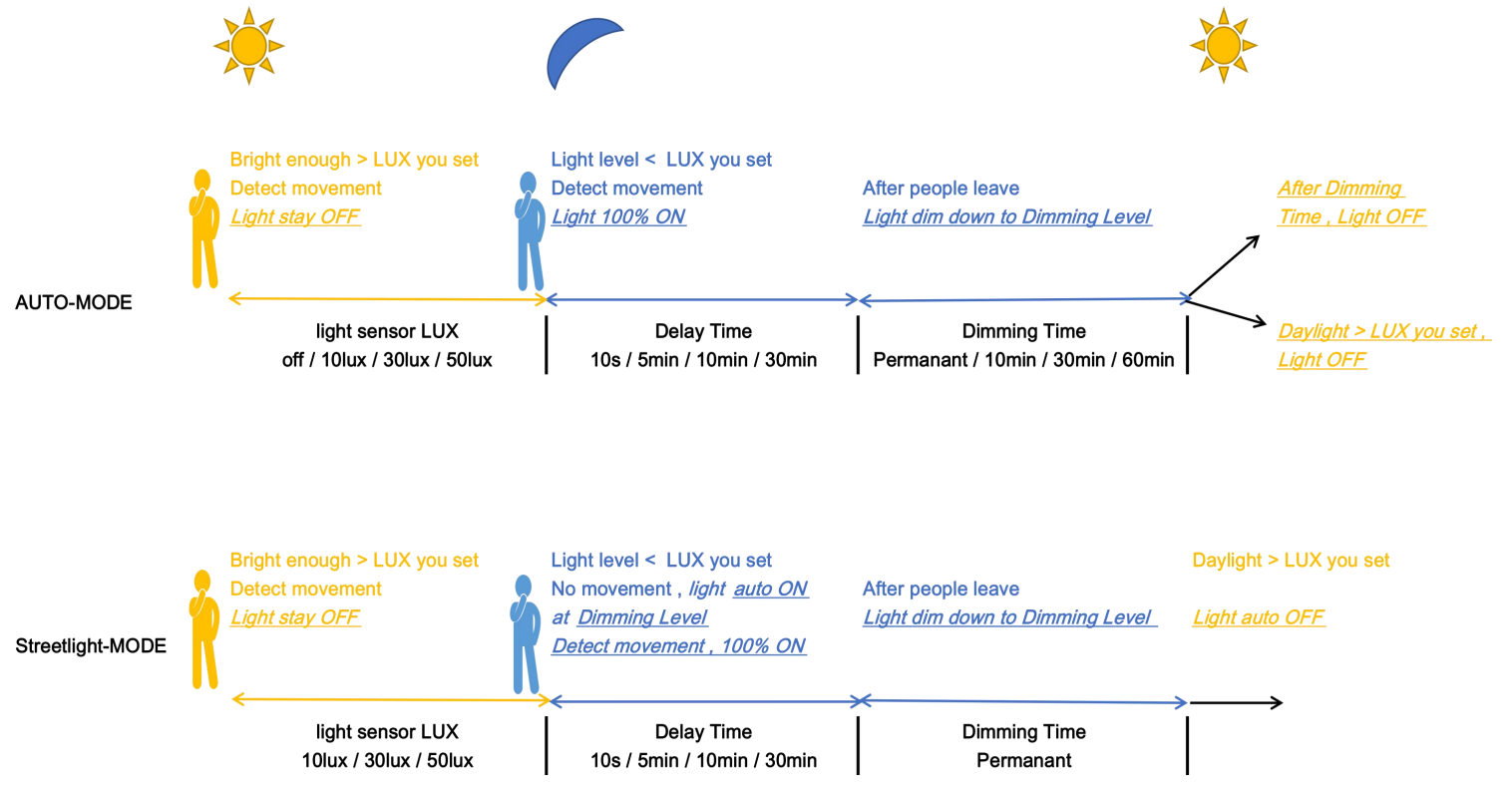
Line voltage wire

Dimming wire

RF Communication
Max 200 feet

Corridor , hallway , yard ...

where daylight sensor is needed

Switch on/off a group of lights based on daylight and
human activity , save energy with multi-level dimming .

Dual-tech PIR & Photocell Sensor
With AUTO-MODE and Street light-MODE

AUTO-MODE

Bright enough > LUX you set
Detect movement
Light stay OFF

Light level < LUX you set
Detect movement
Light 100% ON

After people leave
Light dim down to Dimming Level

*After Dimming
Time , Light OFF*

light sensor LUX
off / 10lux / 30lux / 50lux

Delay Time
10s / 5min / 10min / 30min

Dimming Time
Permanant / 10min / 30min / 60min

*Daylight > LUX you set ,
Light OFF*

Streetlight-MODE

Bright enough > LUX you set
Detect movement
Light stay OFF

Light level < LUX you set
No movement , *light auto ON*
at *Dimming Level*
Detect movement , 100% ON

After people leave
Light dim down to Dimming Level

Daylight > LUX you set

Light auto OFF

light sensor LUX
10lux / 30lux / 50lux

Delay Time
10s / 5min / 10min / 30min

Dimming Time
Permanant

Warehouse

Where wire connection between each light is difficult . Control multiple power packs with several wireless device

Design the wireless lighting control system freely .

The wireless transmitter will control unlimited paired power packs within line distance 200 feet .

The power pack can be controlled by at most 5 dimmers + 4 pir sensors + 1 daylight sensor

X4   X1   X5   X4

One Remote , Multiple Power Pack
One Wireless Dimmer or Sensor will control unlimited pre-matched Power Pack as long as during the communication range 200 feet.

Multiple Remote , One Power Pack
One pre-matched Power Pack can be controlled by 5 dimmers, 4 pir sensors and 1 daylight sensor at most .