

# MINI-P-PP-DIM-GH-W-FC

## Installation and Operating Instruction for B.E.G. Controls - Occupancy sensor MINI-P-PP-DIM-GH-W-FC

### 1. Product information

- MINI primary sensor for use with PP-DIM-J power pack or proprietary low voltage system
- Designed for wet and high-humidity locations and high-bay applications
- Up to 4 Secondary sensors may be connected with a primary sensor to increase detection coverage.
- Spring clips for quick and easy installation in suspended ceilings and light fixtures
- 5-year limited warranty
- Masking blinds included
- All programmable features can be adjusted via B.E.G. Controls smartphone IR-Adapter and Android or iOS app.
- ROHS compliant
- Photocell included as a standard feature

### 2. Operation with power pack PP-DIM-J

#### Automatic Mode

In automatic mode the power relay closes when motion is detected, then the power pack automatically adjusts the dimming load to the programmed level set by the installer.

The dimming load turns-off when motion is no longer detected and the follow-up time elapses. Using the momentary switch option, wired to the power pack, the occupant can toggle the lighting load on/off by pressing and releasing the switch. Pressing and holding the switch will either increase or decrease the light level. The selected occupant level will remain until no motion is detected and the follow-up time elapses. When motion is detected again the power pack will adjust the dimming load to the programmed level set by the installer.

#### Orientation Mode

This mode includes two configurations. Timed and Permanent.

In the timed orientation mode, once motion is no longer detected and the follow-up time elapses, the power pack decreases the dimming load to a pre-adjusted level for a selectable time period (between 30 seconds and 30 minutes), then the load is turned-off.

In the permanent orientation mode, the power pack does not switch the load-off completely. When motion is no longer detected and the follow-up time elapses, the dimming load is decreased to a preset level and stays at that level until motion is detected again or the momentary switch is pressed.

In either mode, should the ambient light level surpass the maximum daylight parameter (100 fc), the load dim to a 1% level. If the ambient light remains at this level for five minutes the load will turn-off. If the ambient light level is close to the minimum daylight parameter (2 fc), the load will turn-on.

#### Semiautomatic Mode

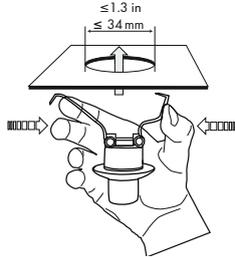
In the semiautomatic mode the power relay only closes when occupant presses momentary switch, then power pack automatically adjusts the dimming load to the programmed level set by the installer. The dimming load turns-off when motion is no longer detected and the follow-up time elapses. Using the momentary switch option, the occupant can toggle the lighting load on/off by pressing and releasing the switch. Pressing and holding the switch will either increase or decrease the light level. The selected occupant level will remain until no motion is detected and the follow-up time elapses. When occupant presses switch again, the power pack will adjust the dimming load to the programmed level set by the installer.

### 3. Safety information

**⚠** Work should be carried out by qualified professionals or by instructed persons under the direction and supervision of qualified skilled electrical personnel in accordance with electrical regulations.

**⚠** The device is not to be used to isolate other equipment from the mains supply!

### 4. Mounting



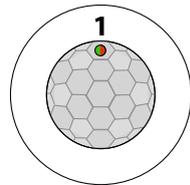
Select sensor(s) mounting location based on room dimensions and sensor coverage pattern. Avoid placing sensor(s) less than four feet away from heat and/or ventilation sources. Avoid placing sensor(s) where view will be directed outside of intended controlled space,

this to prevent outside sources from activating sensor(s). A circular opening 1.3 in/34 mm in diameter must be made in the ceiling.

Having connected the cables in accordance with the national and local electrical codes, connect the sensor to the power pack using the RJ12 connector. Pass sensor's RJ12 connector through ceiling opening. Next, squeeze spring clips through ceiling opening. Sensor should clip securely into place. (See Figure)

**⚠** When using primary and secondary devices, please mount the primary device at the place with the least amount of natural light.

### 5. Position LEDs

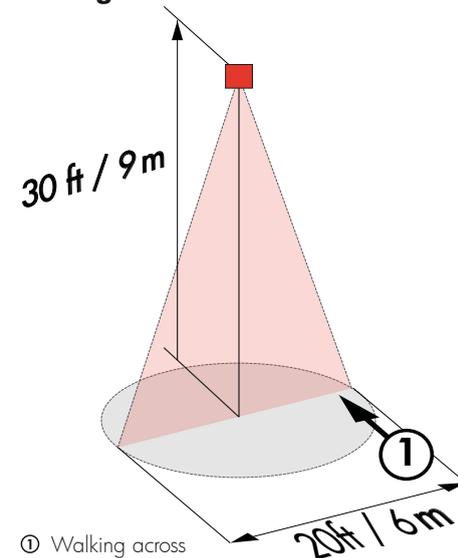


LED 1 green/red

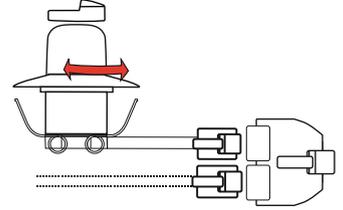
### 6. Self test cycle/Startup behavior

When power is first applied, the sensor enters an initial 60 second self-test cycle. During this time the device does not respond to movement and stays on.

### 7. Range



### 8. Exclude sources of interference



To prevent false activation from external heat-emitting sources, use blinds to mask sensor viewing angle.

### 9. Description / Part No. / Accessory

Description	Part No.
MINI-P-PP-DIM-GH-W-FC	97198
MINI-S-PP-GH-W-FC	97197
<b>Remote control:</b> via B.E.G. Controls IR-Adapter	92726
Power pack PP-DIM-J	97017

The required app for smartphones can be downloaded from the App Store for iOS smartphones and Google Play Store for Android smartphones.

**The manual for the B.E.G. Controls App can be downloaded from [www.begcontrols.com](http://www.begcontrols.com)**

**Note:** Remote only works with primary MINI-P-PP-DIM-GH-W-FC sensor.

**Note:** Maximum distance between sensor and remote - 24 ft / 7.3 m

### 10. Technical data

<b>Operating voltage:</b>	24 VDC
<b>Ambient temperature:</b>	-13°F/-122°F/-25°C to +50°C
<b>Protection:</b>	Suitable for outdoor use and wet locations.
<b>Factory settings:</b>	50 fc/500 Lux, 10 min.
<b>Recommended height for mounting:</b>	30 ft / 9 m
<b>Range of coverage Ø:</b>	walking across 19.7 ft / 6 m
<b>Area of coverage:</b>	360°
<b>DIM output:</b>	0-10 V DC, up to 50 EB

Following settings can only be changed using the B.E.G. Controls IR-Adapter for smartphones and app.  
**Brightness set value:** 2 - 100 fc/20 - 1000 Lux  
**Follow-up time:** Load: 30 sec. - 30 min.  
**Sensitivity:** MIN-LOW-MID-HIGH-MAX

**Dimensions:** H 1.6 in x Ø 1.77 in  
H 41 x Ø 45 mm

### Technical data MINI-Secondary

**Power supply:** 24 VDC  
**Pulse output:** Digital output  
**Pulse duration:** 1 sec. ON, 9 sec. OFF

### 11. Manual switching

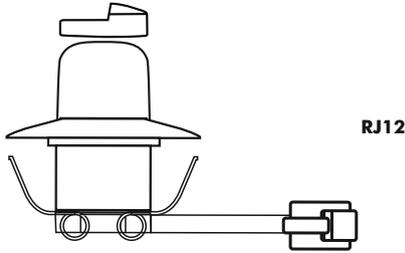
**⚠** See manual of the power pack PP-DIM-J!

## 12. LED-functional indicators

LED function indicators	Process
Red blinks once per second during the first 60 seconds after powering	Device initialization time after reset or power-up.
Red flashes	Motion detected
Red LED on for two seconds	IR command received
Green LED blinks once per second	Too bright detected

## 13. MINI-P-PP-DIM-GH-W-FC - Connection

Connect the B.E.G. Controls MINI-P-PP-DIM-GH-W-FC sensor to the PP-DIM-J power pack using the sensor's RJ12 connector.



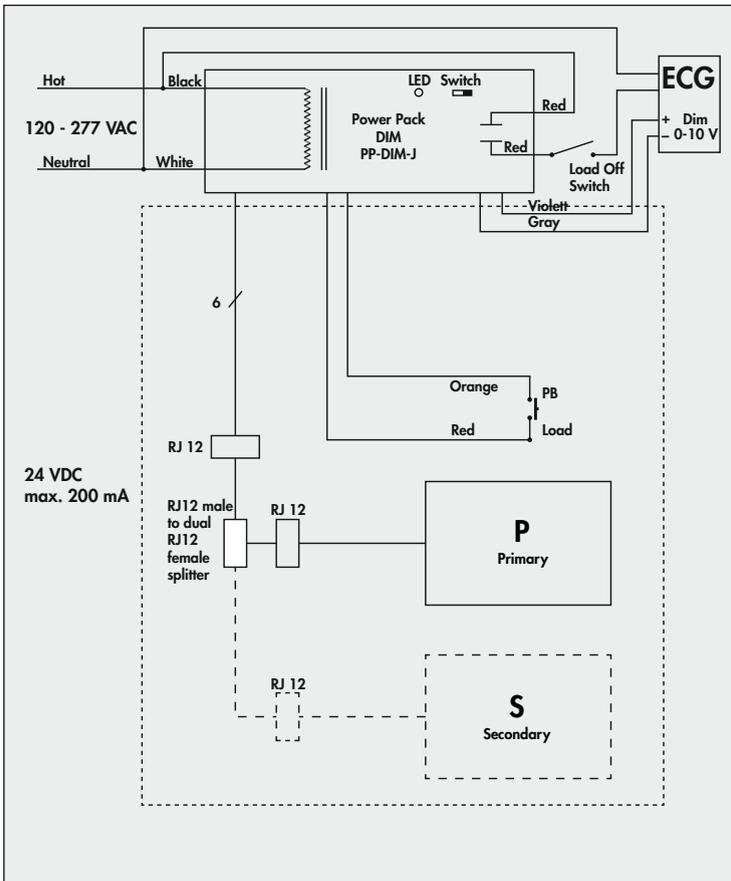
RJ12

## 15. Reset of the detector

Following settings can only be changed using the B.E.G. Controls IR-Adapter for smartphones and app. If the configuration settings lock is activated, the detector can be released again as follows:

- Disconnect and reconnect sensor from power pack
- Let sensor initialize for about 31 to 59 seconds
- Disconnect sensor from power pack
- Connect sensor back to power pack and wait for the sensor to go through self-testing
- Press the unlock button

Pressing the "RESET" button on the remote control, in programming open mode, will delete all of the values set by the remote control. Sensor settings will be set back to factory settings. 50 fc (500 Lux), 10 minute timeout.



**!** Secondary sensors and primary sensor must be connected to the same power pack.

### B.E.G. Controls

277 Highway 74 N, Suite 319  
 Peachtree City, GA 30269  
 Phone: 770-349-6341  
 Email: info@begcontrols.com



# 1. Remote control with IR-Adapter and Remote Control-App

With the IR-Adapter for smartphones, all remote-controllable B.E.G. Controls detectors can be set. The adapter is simply plugged into the phone connector of the Smartphone. A userfriendly navigation allows you to search by product name or by remote control name. The B.E.G. Controls IR-Adapter is plugged into the headphone socket of the Smartphone and establishes the infrared connection to the detector, light or photoelectric switch.

## 13a. IR-Adapter for smartphones - Installation

**Step 1:** Install the remote control app "B.E.G. Controls" on the Smartphone



**Step 2:** Charge the adapter via Micro USB cable. When the battery is being charged, the red LED turns off.

**!** The IR-Adapter has to be charged on a regular basis.

**Step 3:** Plug in IR-Adapter (phone connector).

**!** Sometimes protection covers prevent the adapter from being plugged in completely. Please ensure that the IR adapter is plugged in correctly.

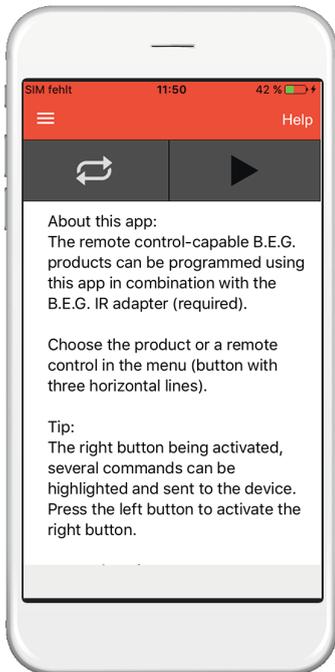
**Step 4:** Please check that the Smartphone's loudness level is maximum in order to ensure a correct operation.



# 2. Procedure to use the remote control app

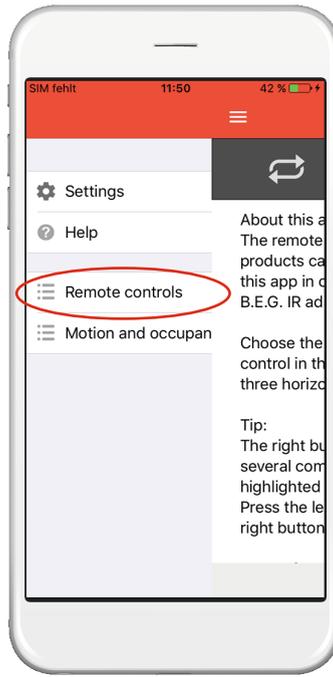
## Start page / Help

To access the device selection page click on the three, white horizontal lines in the upper left corner or swipe from left to right.

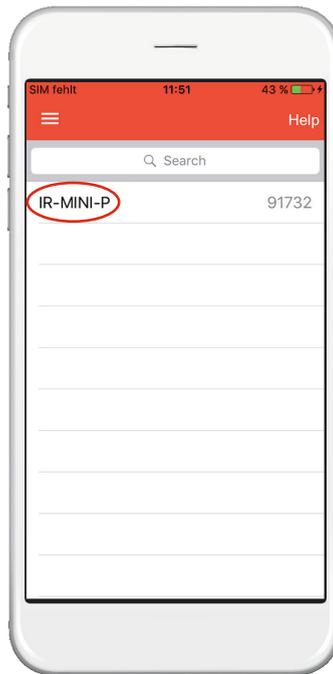


## Device or remote control selection

Select "Remote controls".



Select "IR-MINI-P".

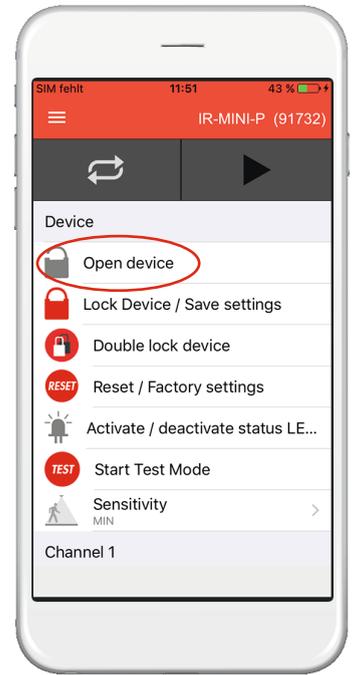


## Functions – Device section

### 1. Open (unlock) the device

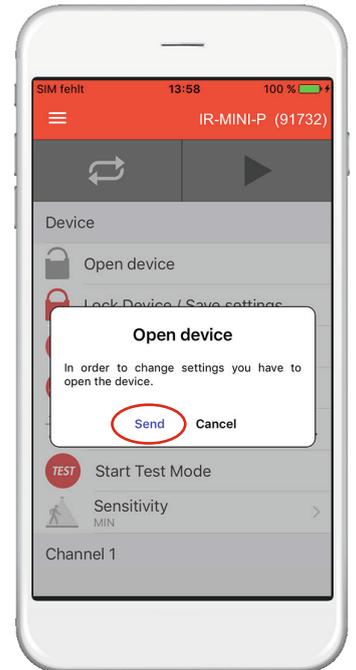
The functions with a grey symbol can only be used when the device is in opened state. Functions with a red symbol can only be used in closed state (like "Start Test Mode") or have a double function, depending on the state of the device. For example "Reset": If the device is locked "Reset" will end all ongoing follow-up times (time out period) and switches off the load and HVAC channels. In opened state, "Reset" will recall the factory settings of the device.

To open the device click on "Open device". (An options window will pop up).



## Functions – Open device

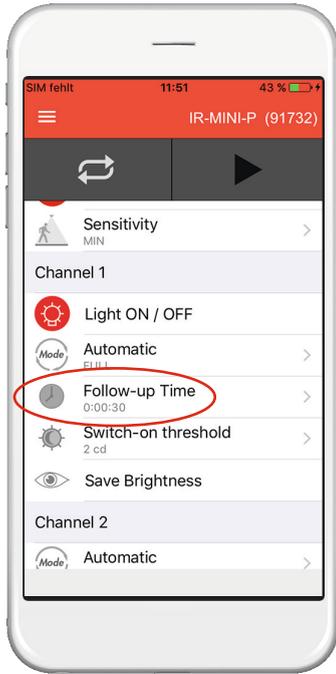
Click "Send" to open the device. (The LED of the MINI will flash green and red consecutively to indicate that a remote control signal has been received.)



## Functions – Channel 1 (load) section

### 2. Changing the follow-up time

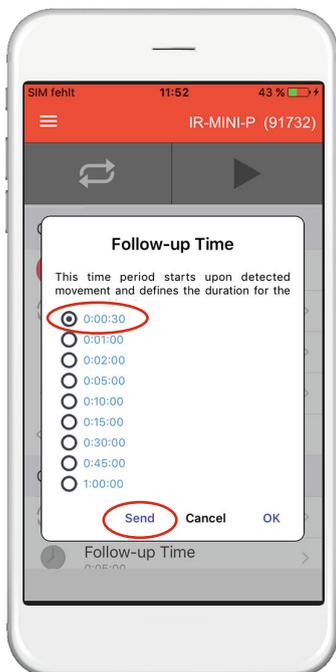
You can now change the follow-up time for example. Click on "Follow-up Time".  
(An options window will pop up).



### Functions – Changing the follow-up time

Choose a follow up time, then click "Send".

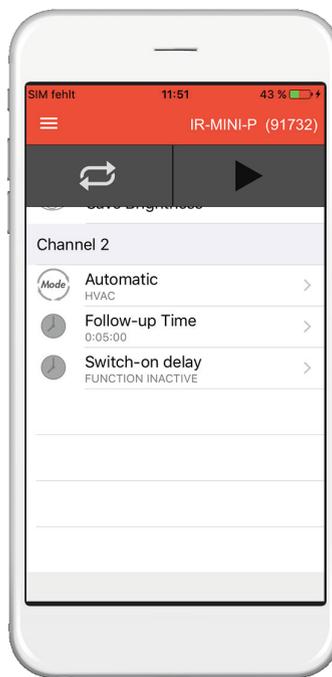
(The LED of the MINI will flash green and red consecutively to indicate that a remote control signal has been received.)



### Functions

Likewise you can set the channel control modes, the follow-up times, the switch-on threshold (CH 1) and the switch-on delay (CH 2).

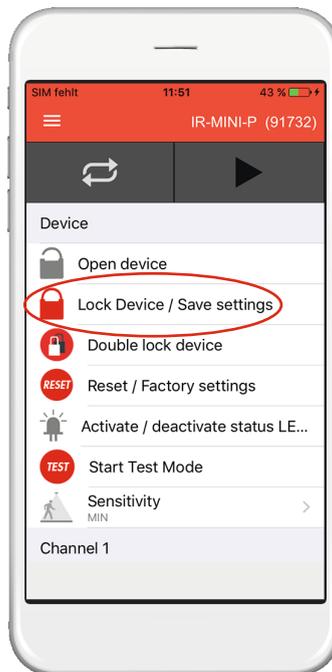
Remember that the device must be unlocked (open device) first, to access the grey functions. Having the device unlocked, you may also adjust the sensors sensitivity, and deactivate/activate the status LED.



### Functions – Locking the device

Once you are done altering the parameters, you can lock the device by clicking "Lock Device/Save settings".

(The LED of the MINI will flash green for 5 seconds - During this time you can "Double lock device". In double locked state you cannot alter any device parameter with the smartphone app.)

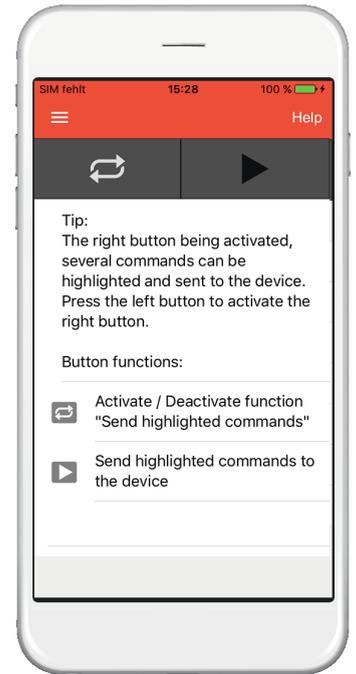


### Functions – Highlight and send

#### 3. Send multiple parameters at once

You may want to apply the same parameter settings to more than just one MINI Primary sensor, in this case you can use the "Activate / Deactivate function" to select multiple commands. The "Send highlighted commands" button will then send all selected parameters. Please note that this is only applicable for open state functions. The app will always send the "Open device" command before sending all other parameters, even if it is not highlighted.

After 3 minutes without receiving commands from the app, the MINI will return into locked state automatically. Alternatively, the device can be closed manually by using the "Lock device / Save settings" button.

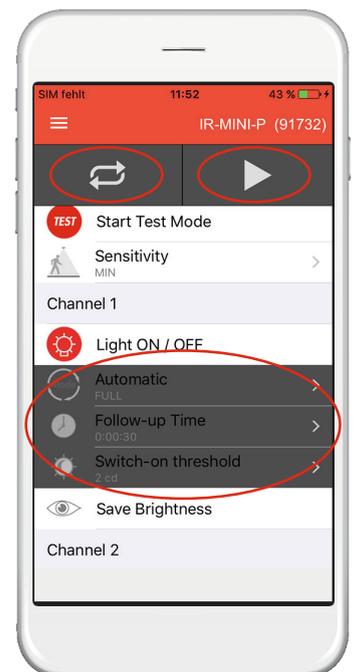


### Functions – Highlight and send

First click on [Send highlighted commands icon]. Now highlight the different parameters, which you have modified in beforehand, by clicking on them. (They will turn dark grey to indicate that they are highlighted).

Then just click [Send highlighted commands icon] when in range of the MINI that you want to modify.

This allows you to move from room to room and program a number of MINIs with the same settings, by just pressing one button each time.



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