

# Prisma Light

OUTDOOR LIGHTING WITH DIMMING • ZHAGA 



## ZHAGA REMOTE

MANUAL ANDROID-APP  
VERSION 1.0

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## CUSTOMER SUPPORT

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# GENERAL DESCRIPTION

Prisma Light Zhaga Remote is a Zhaga node used for controlling street lighting luminaires. It is connected to the luminaire via a Zhaga connector that is either on top or bottom of the luminaire. It can be set to a schedule with different light levels at different times during the night. For this function to work it is necessary to be used on a luminaire that is turned off during the light hours of the day. It can also be used to read information and diagnostics from the luminaire according to the D4i standard. To set the schedule, change settings and read diagnostics and information an Android app is used that connects via Bluetooth. To connect to the unit a PIN-code is required.

# PRISMA LIGHT ZHAGA REMOTE NODE

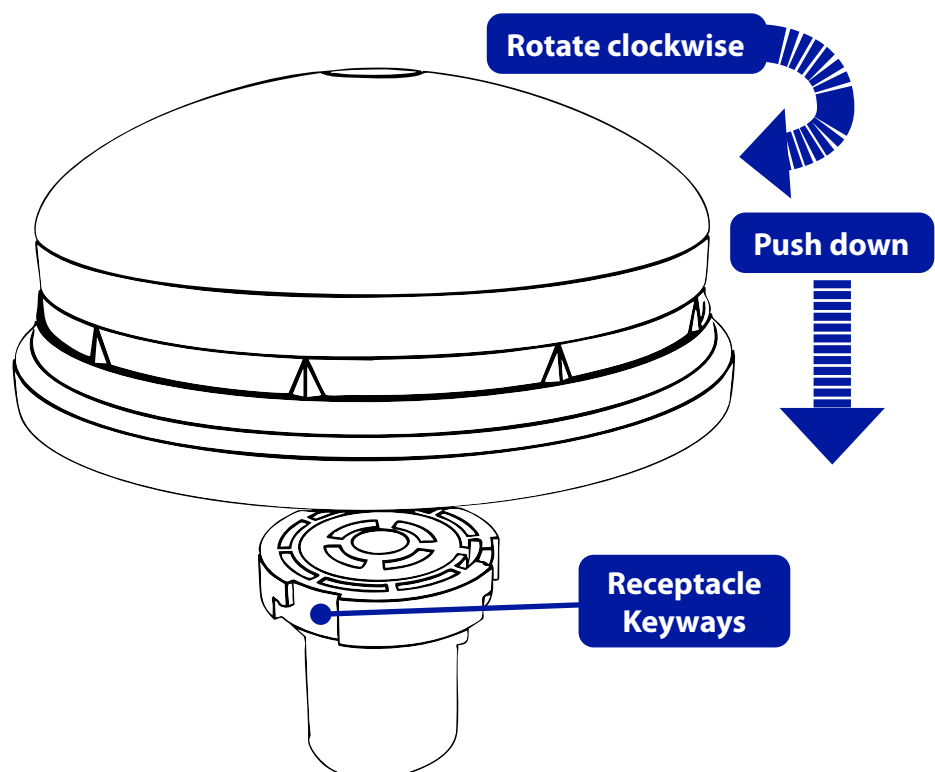
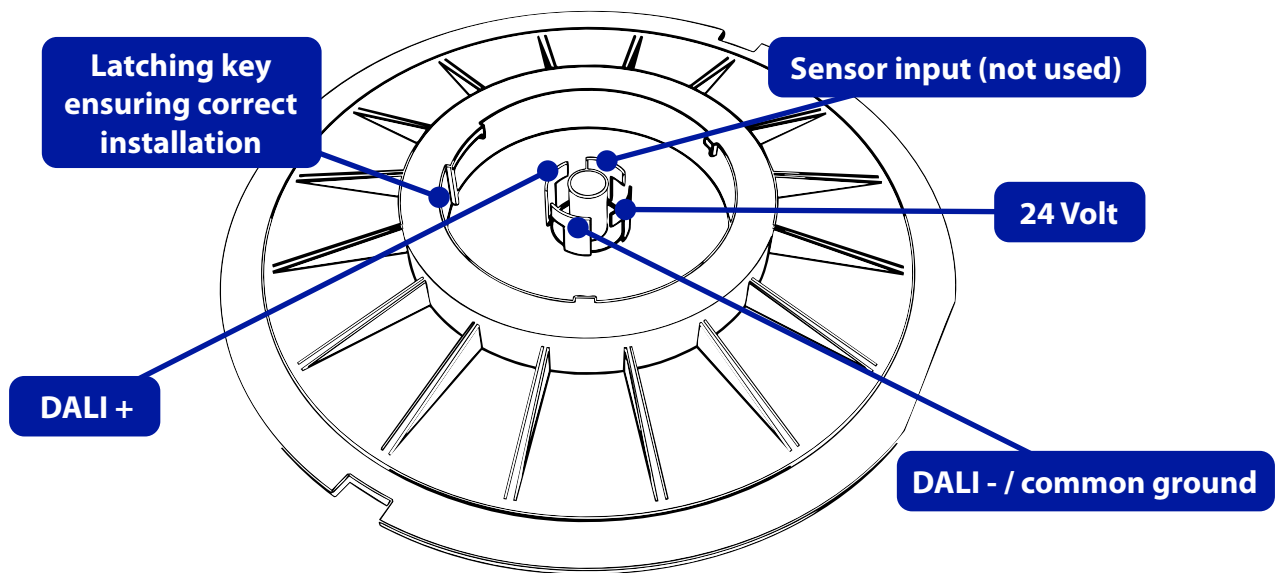
The Zhaga controller provides wireless control of LED fixtures that have DALI-2 LED drivers and Zhaga standard connectors.

## Specifications

- Input Voltage (CV): 21,6-26,4VDC
- Bluetooth frequency 2,4 GHz
- RF Transmission Output Power: +10dBm
- IP66
- IK09
- Operating Temperature: -40° to +70° C
- Dimensions ØxH: 80 x 39

## Installing

Required LED fixture with a Zhaga connector installed and a driver with external DALI-2 Bus Power Supply and 24 V auxiliary supply. To be able to read Driver information and status a D4i driver is needed.



### Align – Push – Turn

Align the Prisma Light Zhaga Remote node so to that the latching keys match up with the receptacle keyways. Only one way is possible.

When you feel that the keys are aligned push down and then rotate clockwise to lock in place.

# INSTALLATION ANDROID APP

The Android App is provided by PrismaTibro, Sweden – it is not public available in Google Play Store. However, your organisation can get access via Managed Google Play upon Request. Request Android-app at [prismatibro.se](http://prismatibro.se)

## New installation

1.

**Download the installation file from the link**

PrismaZhagaRemoteApp-1.0.apk

2.

**Open PrismaZhagaRemoteApp -1.0.apk for installation**

In settings/security allow "Unknown sources" shall be enabled to allow installation of the App.

Prisma Light Zhaga Remote firmware is included in the App installation package and will automatically be installed in the

/Prisma/ZhagaRemote/App folder on your Android device.

Release Notes will be installed in the

/Prisma/ ZhagaRemote/release notes folder on your Android device.

## NOTE

If upgrading from an earlier version, please uninstall the old version first before installing the new.

## NOTE

When starting the App for the first time, permissions for storage and location (for Bluetooth functionality) needs to be granted. It may look differently depending on your device brand, model, and Android version.

## Start the app

Start the app and press the ZhagaRemote icon to continue.



# INFO MENU

## NOTE

Press the three dots in upper right corner.

### Save

Save the file you are working with.

### Save as

Save file under a new name.

### Current file

Shows the name of the file you are working on right now.

### App Version

App version currently running on the Android device.

### App Build Time

Date and time when the App was created.

### Compatible ZhagaRemote Firmware

FW version that is compatible with this App version.

### Android Release

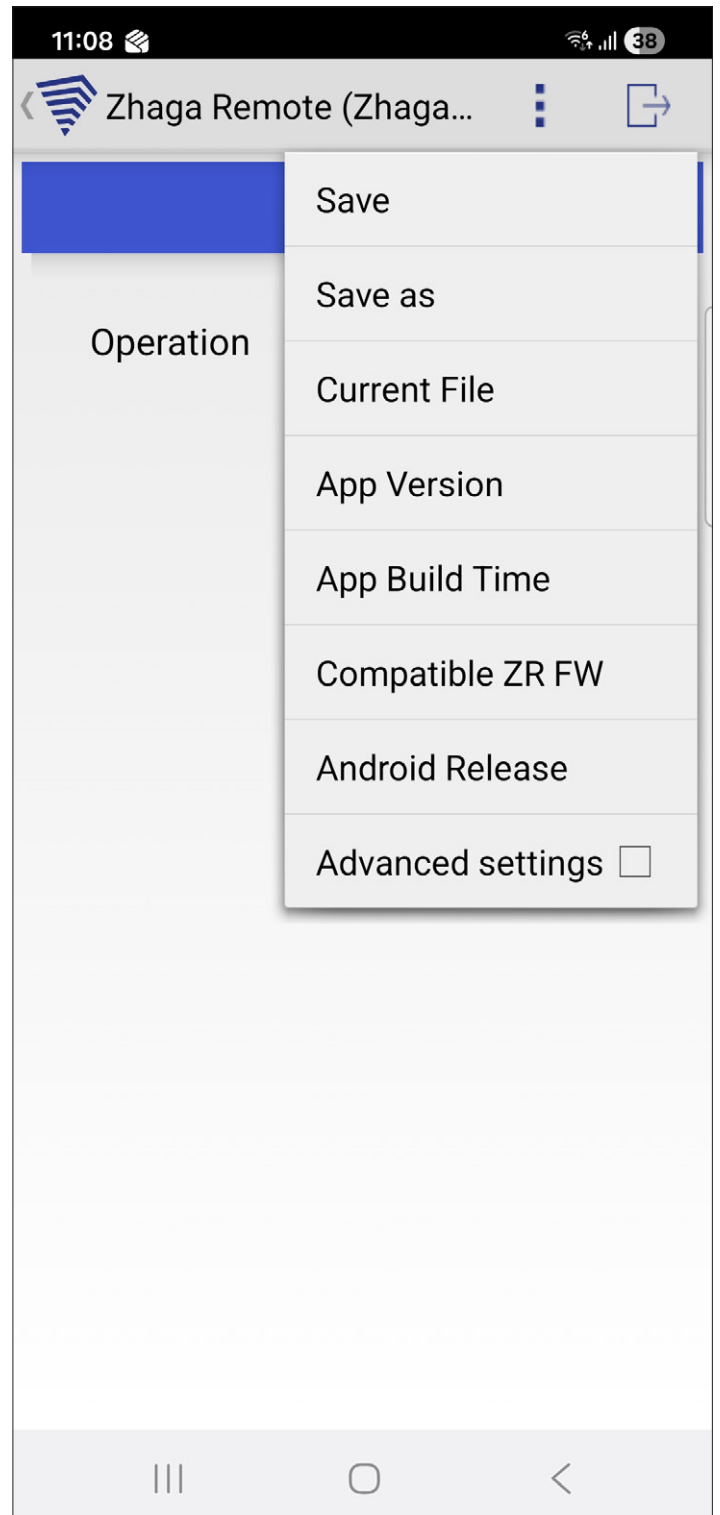
Android version running on this device.

### Information on settings

Click this symbol to retrieve more information about the current setting/parameter.

### Current configuration

Always shown in the header.



# MAIN MENU

## Start a new configuration

All parameters are default set to best practice when opening a new configuration.

## Copy an existing configuration

If you want to copy and modify an existing configuration file.

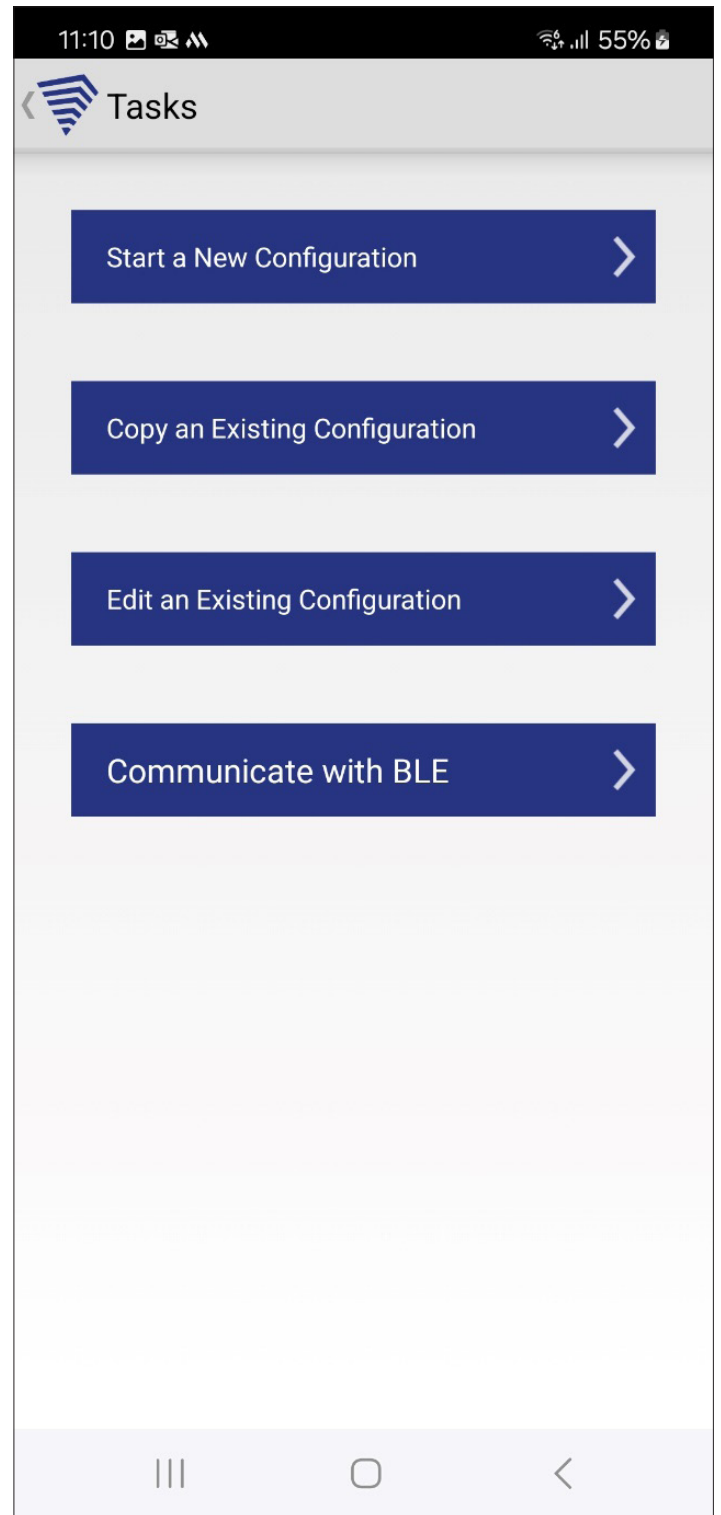
## Edit an existing configuration

This option is only available when you already have configurations saved. If grey the configuration folder is empty.

## Communicate with bluetooth (BLE)

Enter your 4-digit pin code and press Log In to proceed to scanning page.

For instructions see section communicating with Prisma Light Zhaga Remote.



# CONFIGURATION MENU

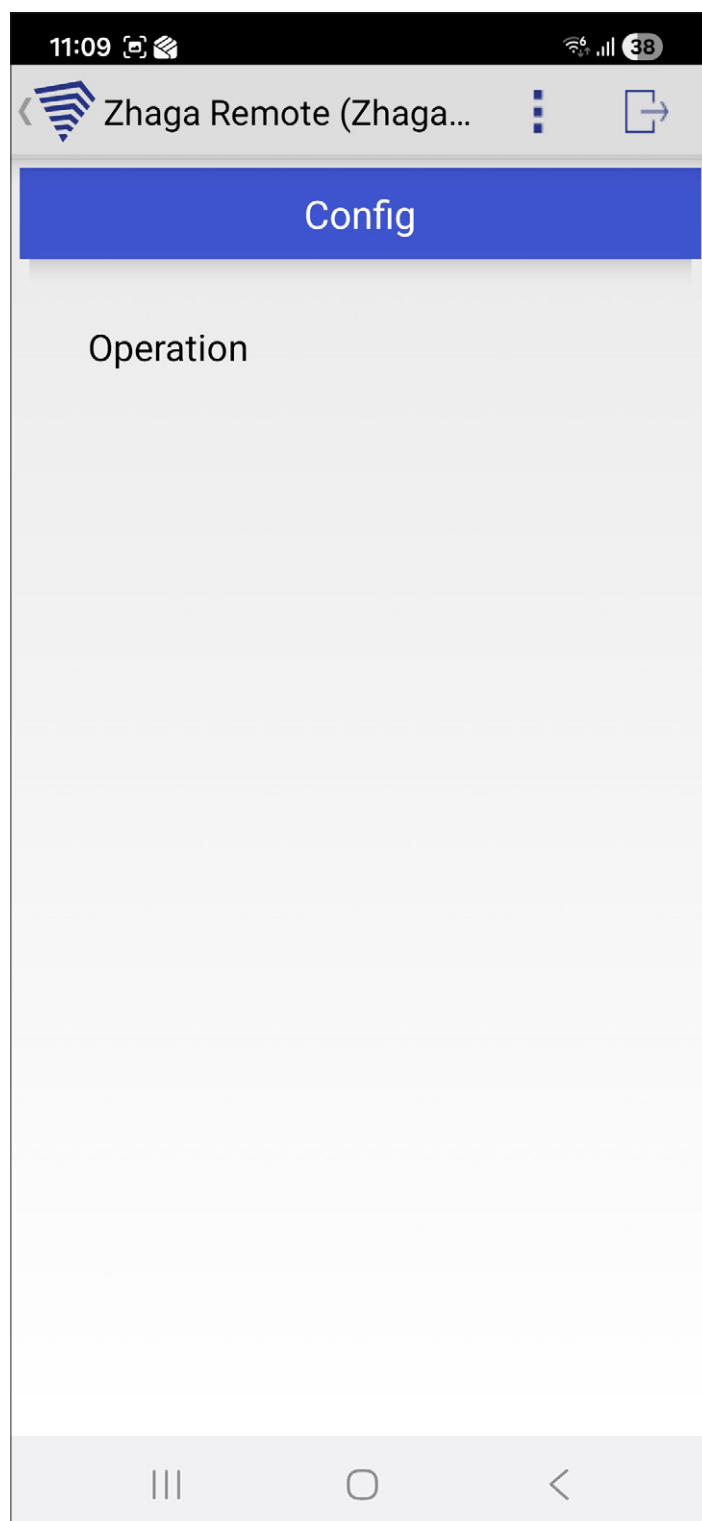
If you opt for new/copy/edit configuration in the main menu and named your file, you will proceed to configuration menu. When Prisma Light Zhaga Remote is delivered from factory it is loaded with a best practice configuration. So only minor changes may need to be done.

## Operation

Configuration of night dimming schedule and corresponding light levels and fade times.

## System parameters

Configuration of some system settings.



# OPERATION MENU

## Initial light level

the light level that should be active until the next switch time (this case 22:00)

## Step 1-4 Enabled

Uncheck this box do disable this step

## Switch time

The time in 24-hour format where the luminaire should switch to the next light level.

## Fade time(s)

Number of seconds for the new light level to fade to. The last light level will be held until power off.

11:14 56%

Operation (ZhagaRemote\_1.t...

### Light

Initial light level  
Light level: 100%

Step 1 Enabled

Switch time 22:00 Fade time (s) 0  
Light level: 80%

Step 2 Enabled

Switch time 22:30 Fade time (s) 2  
Light level: 9%

Step 3 Enabled

Switch time 00:00 Fade time (s) 4  
Light level: 49%

Step 4 Enabled

Switch time 01:30 Fade time (s) 8  
Light level: 90%

Save and exit

# SYSTEM PARAMETERS MENU BLE, BLUETOOTH

## NOTE

Should only be changed in consultation with PrismaTibro during troubleshooting.

### Antenna

Can be chosen to be both internal or external.  
Internal is default and there is no external antenna mounted.

### Tx Power CPU (dBm)

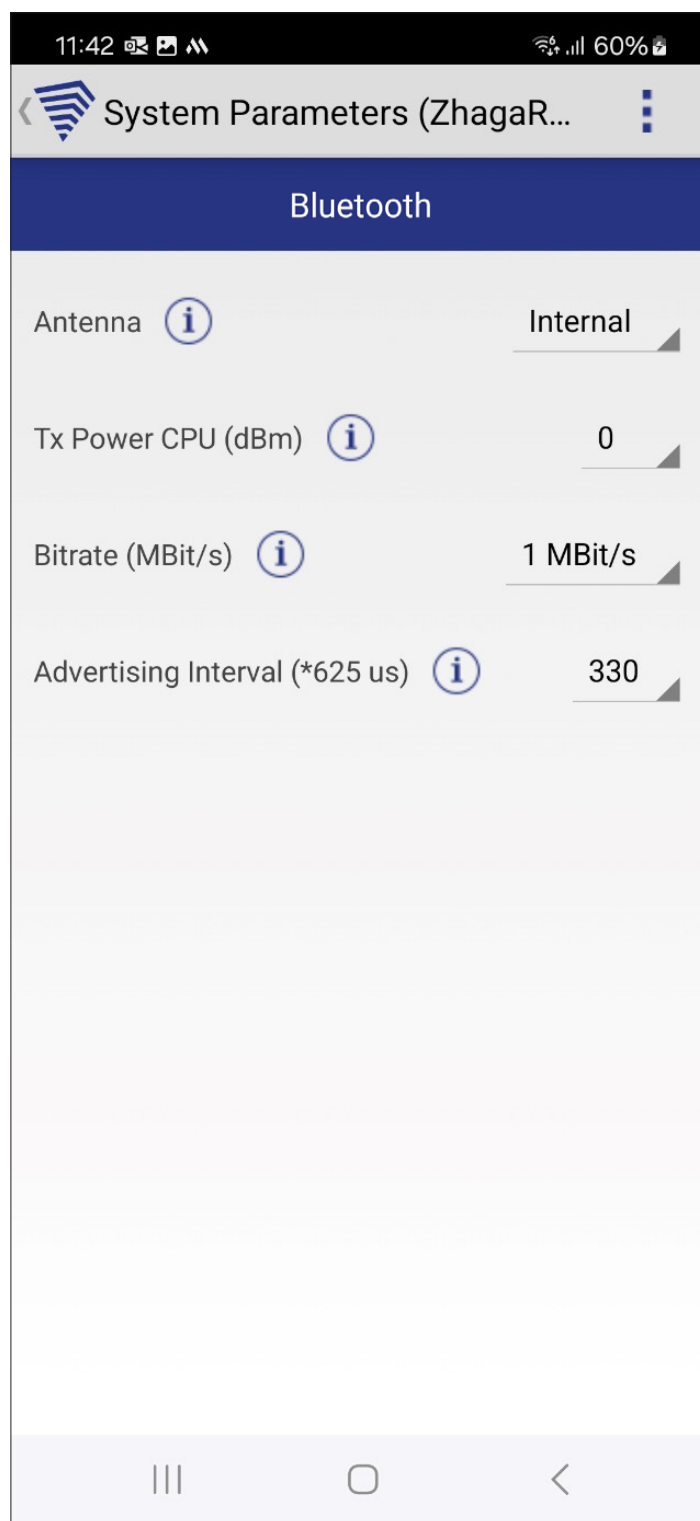
Can be set from -40 -> 8 dBm.  
This set the effect that the antenna sends its Bluetooth signal.

### Bitrate (Mbit/s)

The communication speed that is used between the android app and Prisma Prisma Light Zhaga Remote.  
Can be set to AUTO, 1 Mbit/s or 2 Mbit/s.

### Advertising interval (\*625us)

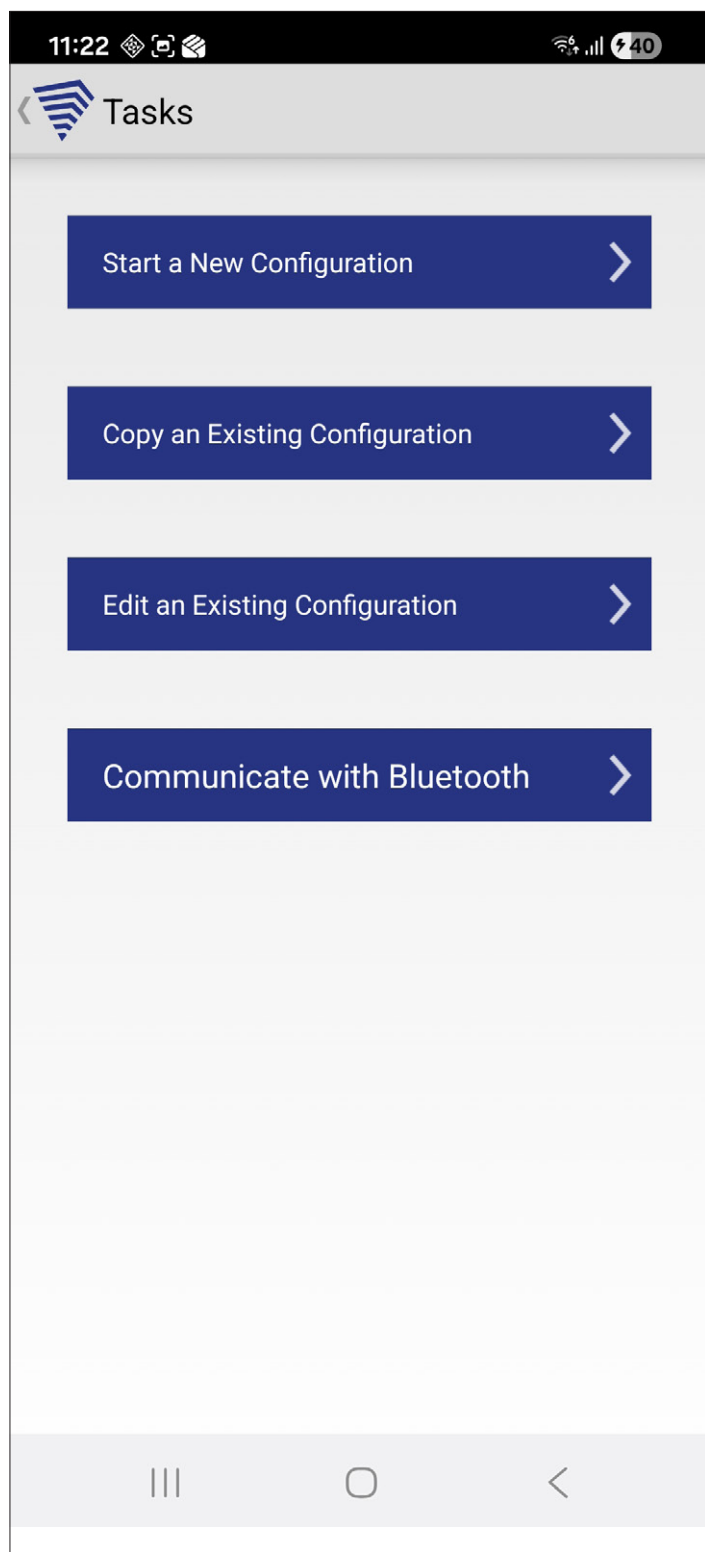
The interval which Prisma Light Zhaga Remote uses to advertise itself when not connected to any android unit.



# COMMUNICATING WITH PRISMA LIGHT ZHAGA REMOTE

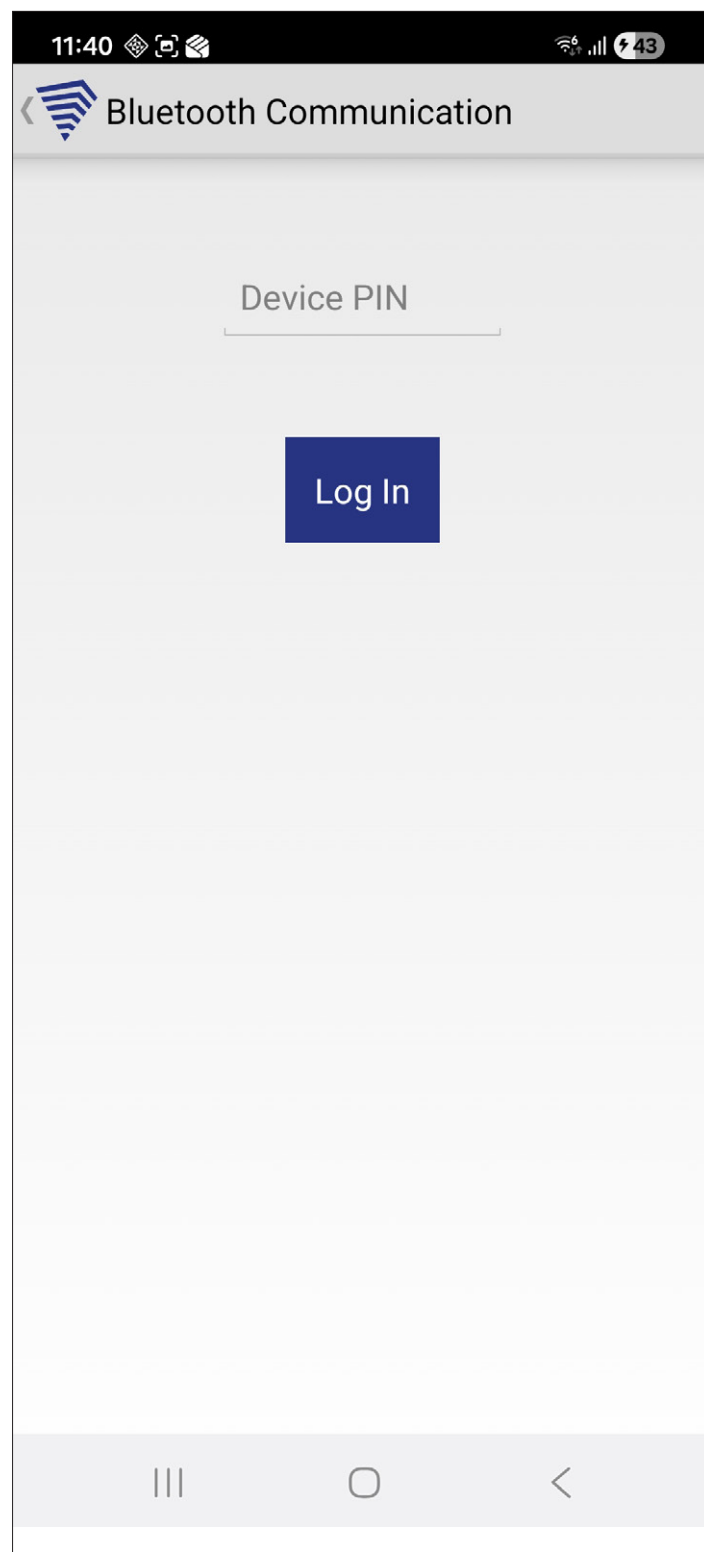
## Tasks

With the app it is possible to transfer files, configure settings and check status and statistics. To enter the communication menu, press the button "Communicate with BLE".



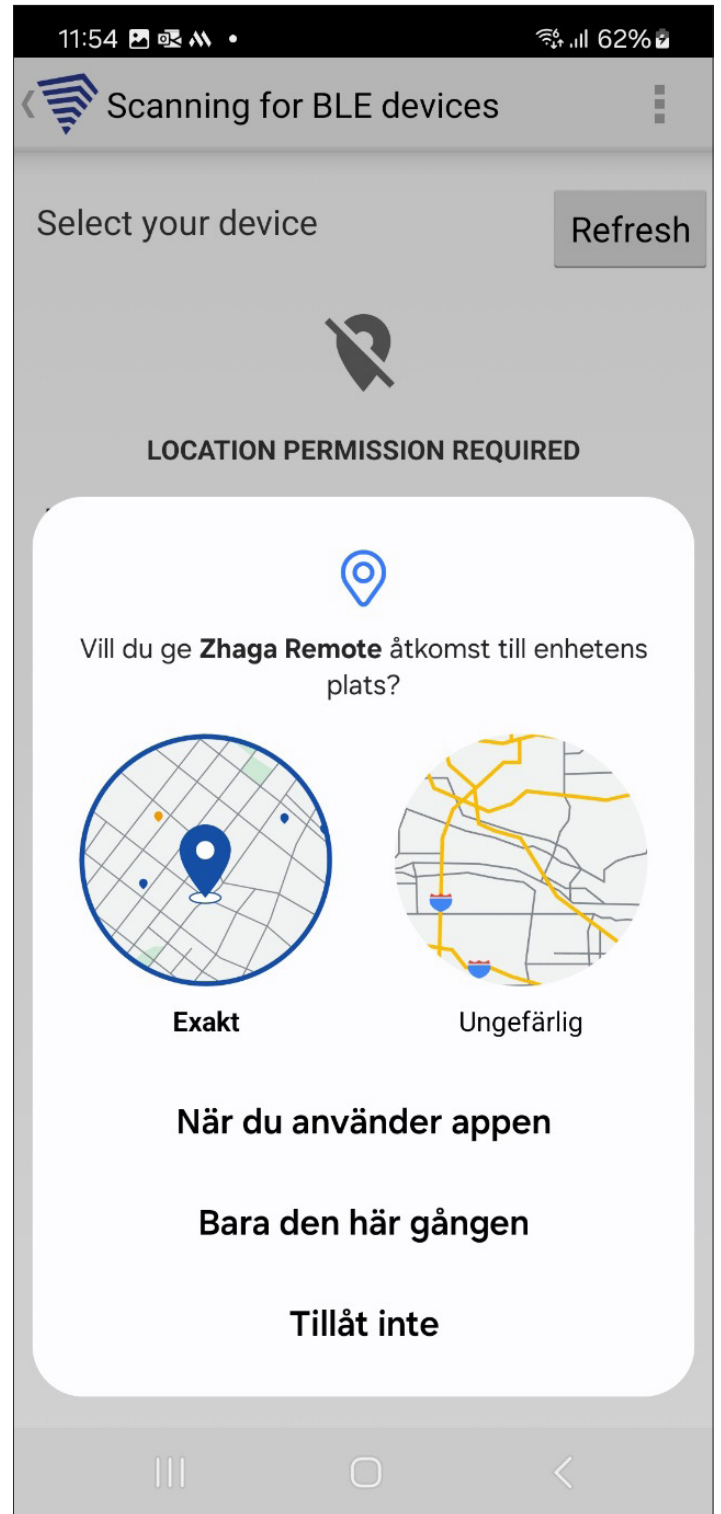
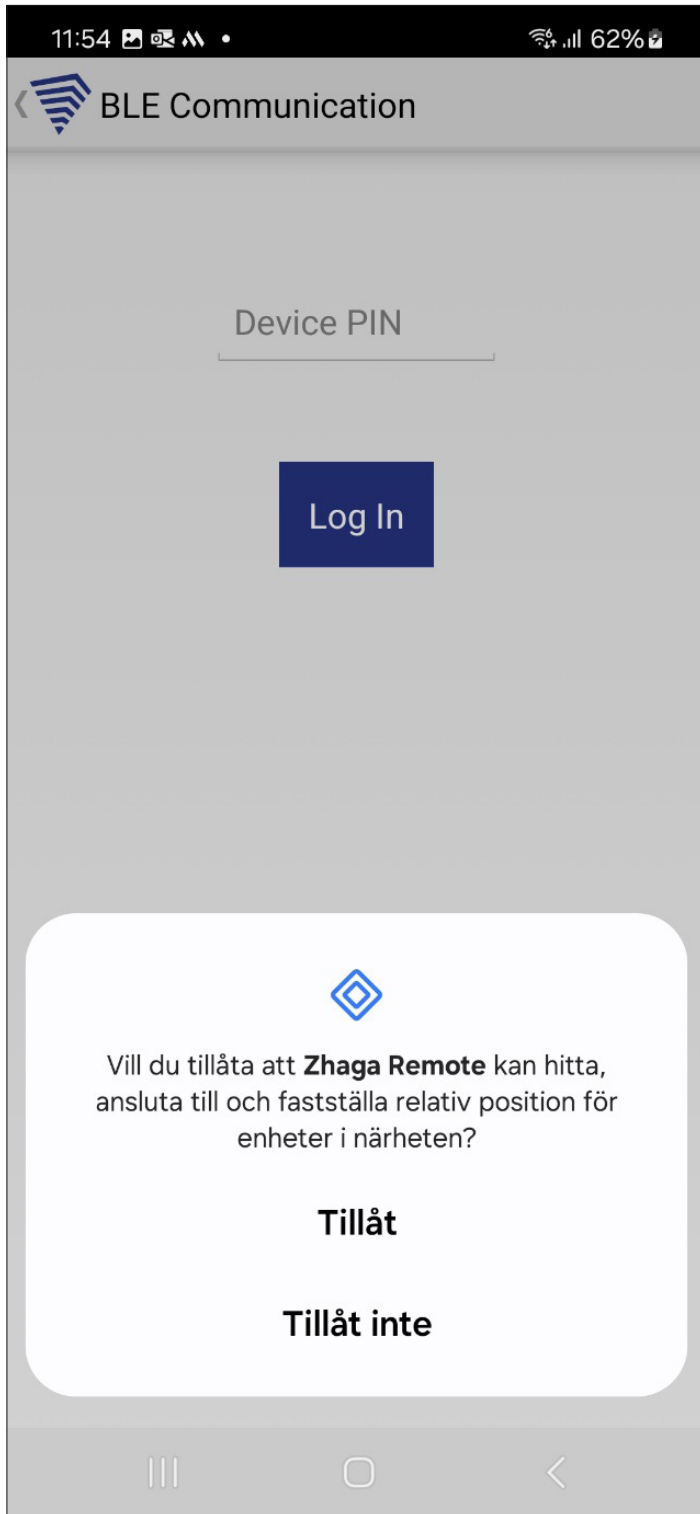
## Type your pin

and press "Log In" to proceed.  
Please contact PrismaTibro if you need information about your PIN.



# COMMUNICATING WITH PRISMA LIGHT ZHAGA REMOTE

When connecting to a Prisma Light Zhaga Remote via Bluetooth for the first time, you might be met with the question to grant access to Precise or Approximate location. It is important to select Precise. Otherwise, Prisma Light Zhaga Remote units will not be visible in the Bluetooth scanning list.



# COMMUNICATING WITH PRISMA LIGHT ZHAGA REMOTE

Then you get a list of online Prisma Light Zhaga Remote units nearby.  
The MAC address of each unit will be shown in the list.

When downloading files from a Prisma Light Zhaga Remote unit,  
the unique MAC address will be added to the file name to make it easier  
to identify later.

Select the Prisma Light Zhaga Remote unit in the list that you want to  
connect to.

The one closest to your position will usually have the best  
signal strength.

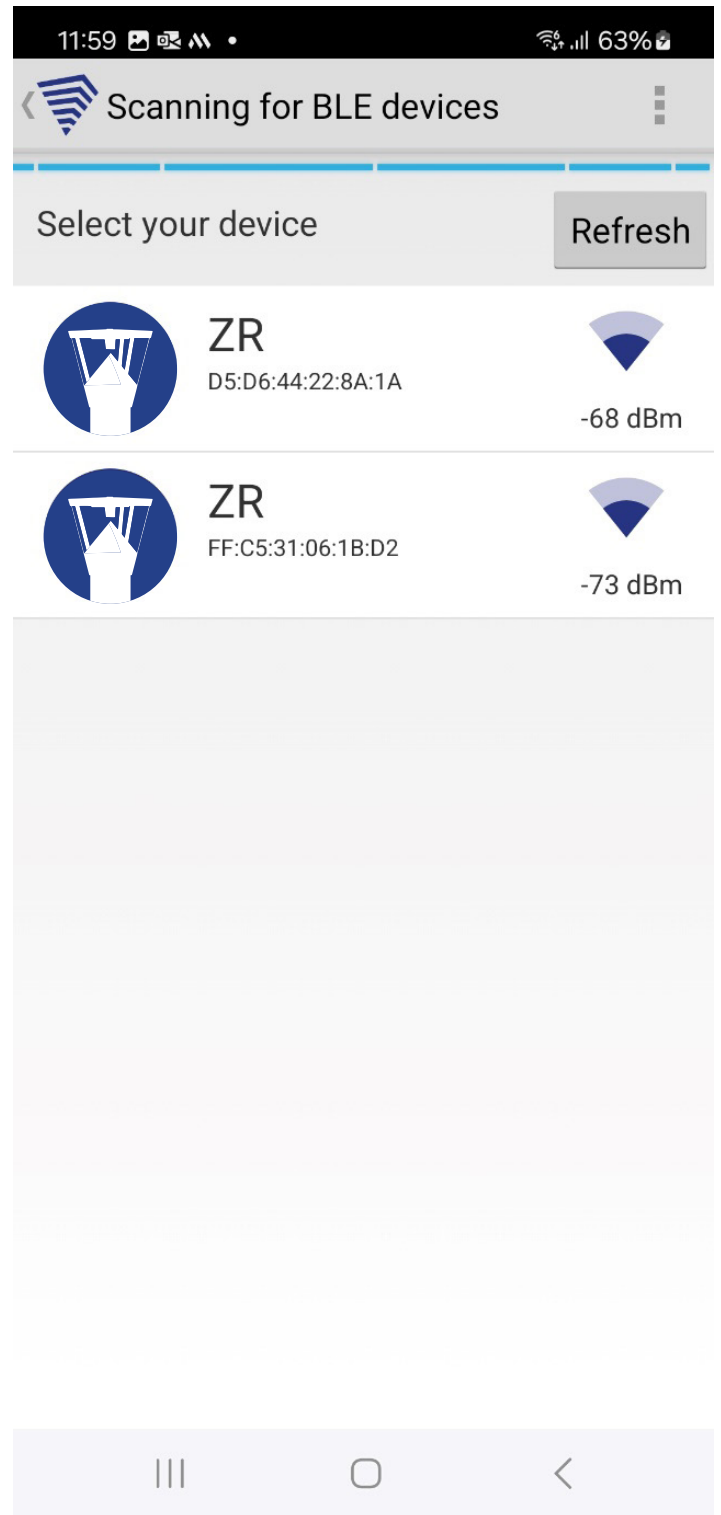
In this case -68dBm is the best signal strength.

When being connected to a unit connected to a luminaire the luminaire  
will flash a couple of times for easier identification.

When asked if pairing that should be chosen.

That is to ensure a secure connection before sending  
sensitive information.

The pairing will later be removed upon disconnection.



# COMMUNICATING WITH PRISMA LIGHT ZHAGA REMOTE

When connected you will be led to a menu with these choices:

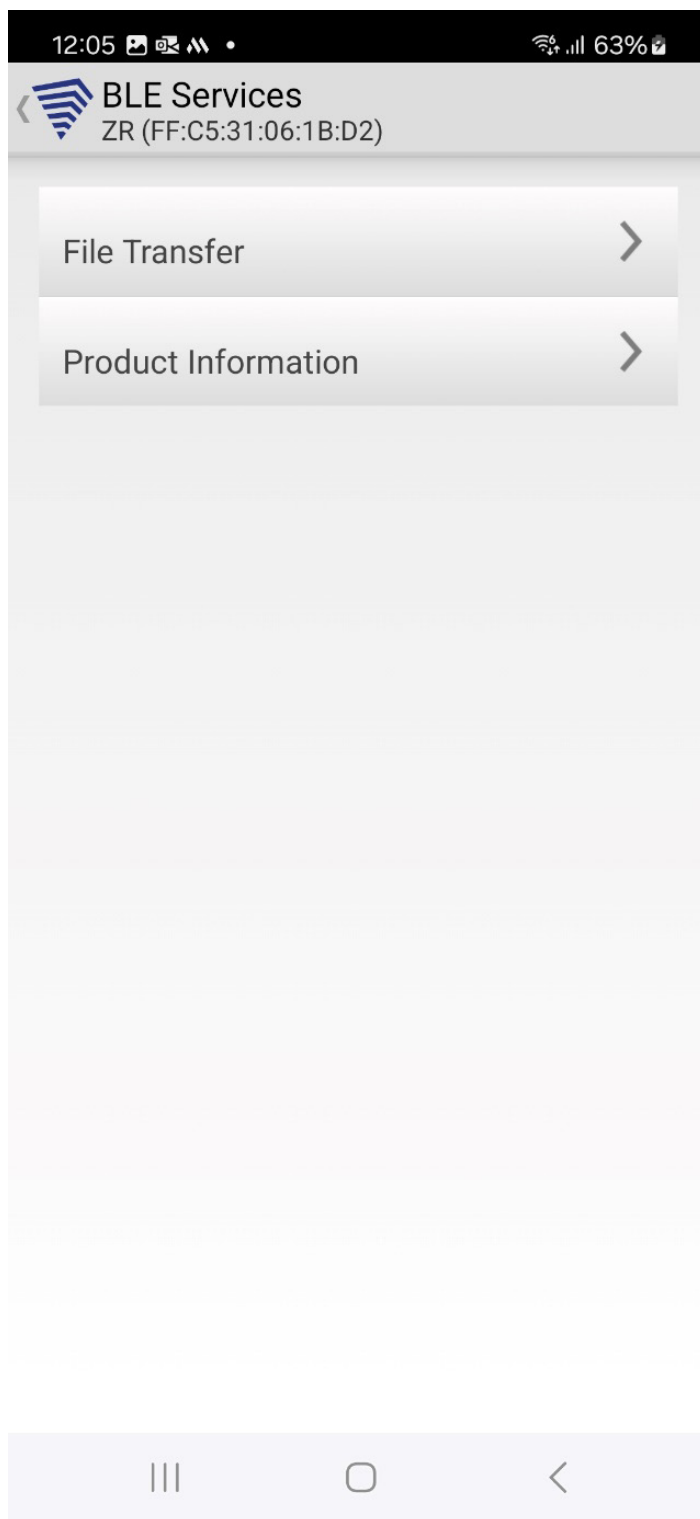
## File Transfer

In this menu configuration files and firmware can be transferred to Prisma Light Zhaga Remote.

The configuration file could also be read back to the android unit.

## Product information

Can give you information about software, hardware, health status and statistics.



# FILE TRANSFER MENU

You can both send and receive the configuration file to/from the Prisma Light Zhaga Remote unit.

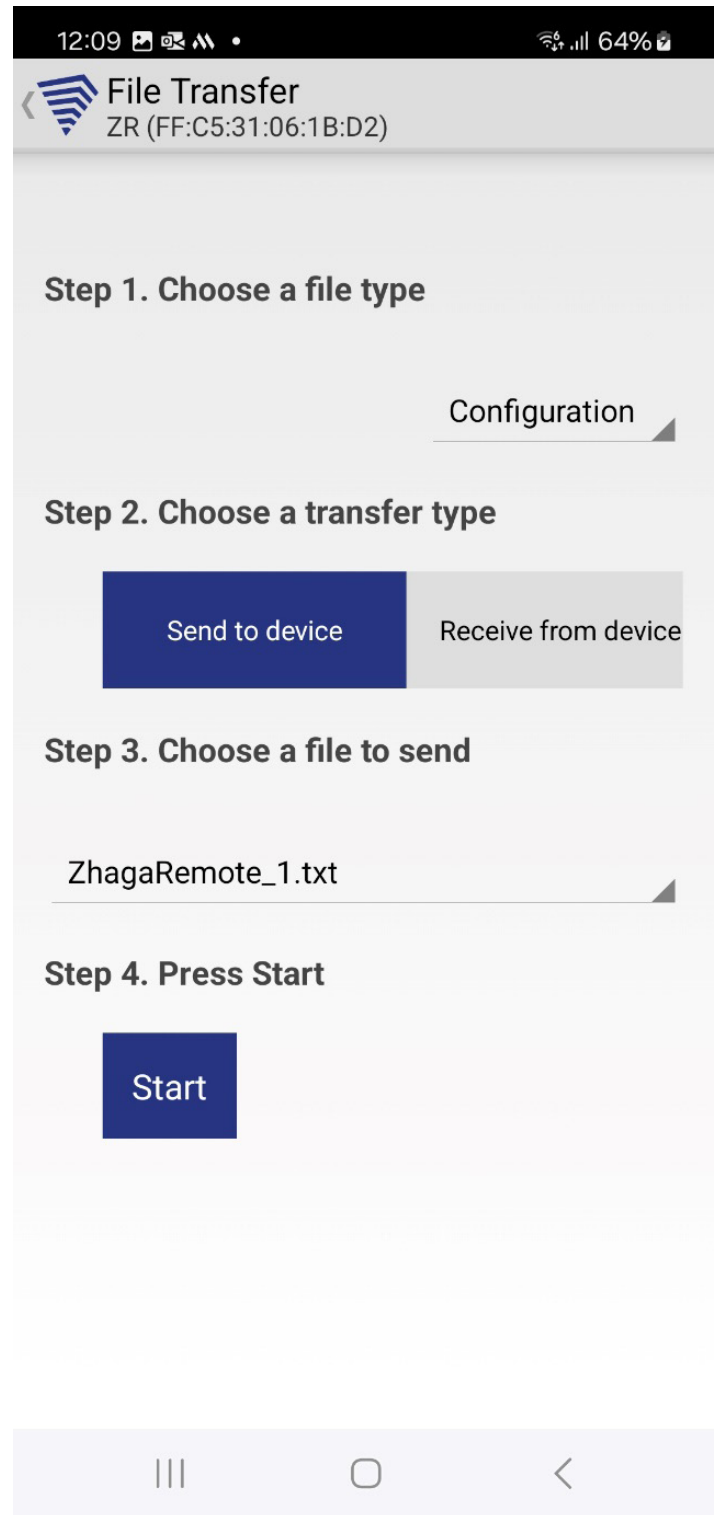
The firmware can only be sent to the Prisma Light Zhaga Remote unit.

First choose which file type you want to use.

Then choose which specific file you want to send to the device.

Then press start and wait for the transfer to finish.

When the transfer is finished the Prisma Light Zhaga Remote unit will be restarted for the new settings to be activated and therefore a disconnection message will pop up in the android device.



# PRODUCT INFORMATION

Information that can read using Prisma Light Zhaga Remote unit is sectioned into these categories.

## Versions

Info on hardware, software and configuration

## ZR status

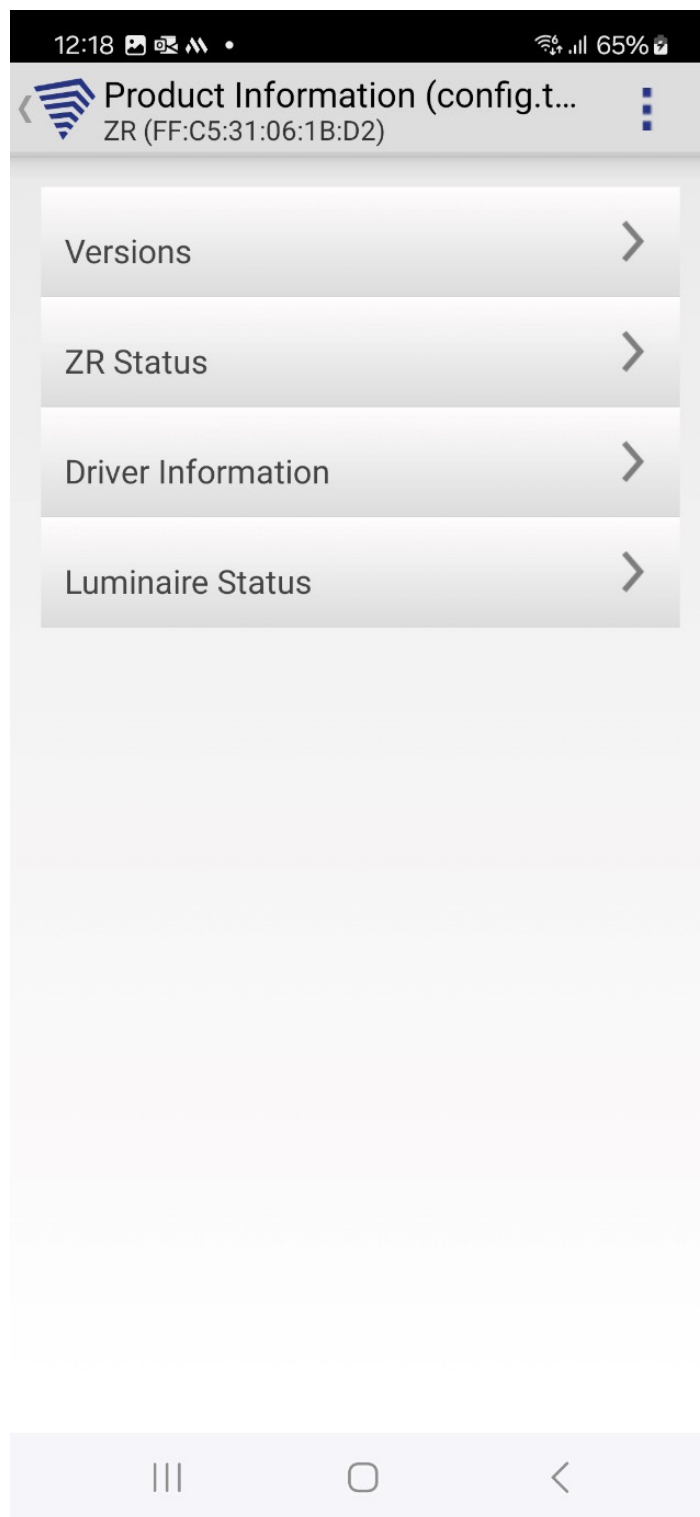
Status of the Prisma Light Zhaga Remote motherboard

## Driver information

Information from the driver according to D4i standard.

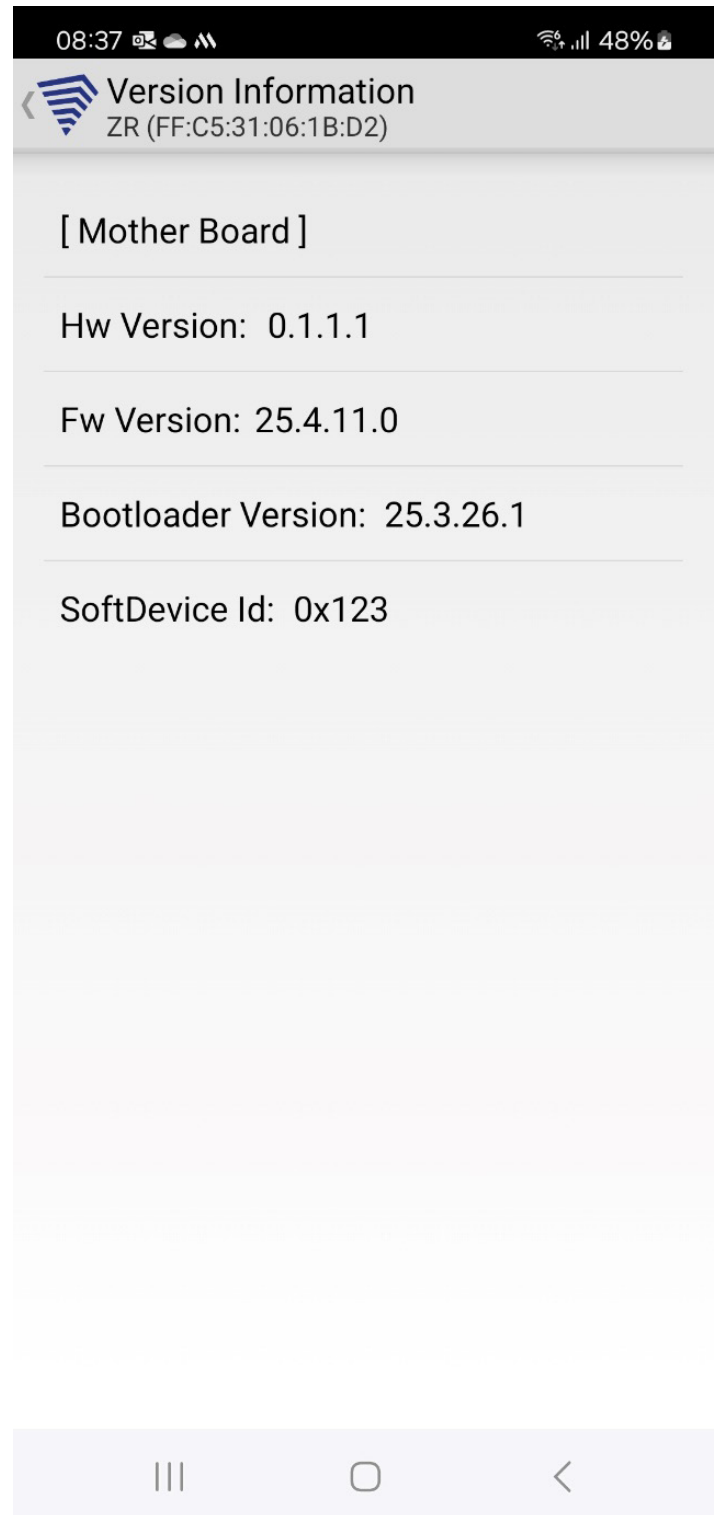
## Luminaire status

Status of the driver and LED-board according to D4i standard.



# VERSION INFORMATION

This page contains information about different version of hardware and software.



# PRISMA LIGHT ZHAGA REMOTE STATUS

This contains status on the chip on the Prisma Light Zhaga Remote

08:39 49%

PR Status  
ZR (FF:C5:31:06:1B:D2)

Values

Heap (Bytes)	110760
Chip Temperature (C)	28

||| ○ <

# DRIVER INFORMATION

This page contains all the driver related information that is specified in the Dali D4i standard.

If a value is "-1" it means that value was not set in the driver.

## GTIN

Drivers global trade item number

## FW version

Firmware version of the driver

## HW version

Hardware version of the driver

## Identification number

64 bit number that is used for identification of the device. It is recommended to set as the serial number.

## 101 Version number

Contains the version number of the IEC62386-101 standard that is used.

## 102 version number

Contains the version number of the IEC62386-102 standard that is used.

## 103 version number

Contains the version number of the IEC62386-103 standard that is used.

## Number of logical control device units in the bus unit

Range: 0-64

## Number of logical control gear units in the bus unit

Range: 1-64

## Index number of this logical control gear unit

Range is 0-total number of control gear units.

## Current bus unit configuration

Indicates the currently selected implementation of device types and logical units.



## Driver Information

ZR (FF:C5:31:06:1B:D2)

[ Memory bank 0 ]

GTIN: 00857736008776

FW version: 1.0

HW Version: 1.0

Identification Number: 0

101 version number: 8

102 version number of all integrated control gear: 8

103 version number of all integrated control devices: -1

Number of logical control device units in the bus unit: 0

Number of logical control gear units in the bus unit: 1

Index number of this logical control gear unit: 0

Current bus unit configuration: 0

# DRIVER INFORMATION

## OEM GTIN

Global trade number of the producer of the luminaire.

## OEM identification number

Unique ID assigned by manufacturer.

## Manufacturing date

Shows which year and week it was produced.

## Nominal input power(W)

Typical power consumption.

## Power at minimum dimming level (W)

Power consumption when dimming set to lowest possible setting.

## Nominal min AC mains voltage (V)

Minimum input voltage.

## Nominal max AC input (V)

Maximum input voltage.

## Nominal Light Output (lm)

Total luminous flux in lumens.

## CRI of luminaire

Color rendering index.

## CCT (K)

Correlated Color Temperature.

## Light distribution type

IES 901-11 classification.

## Luminaire color

Color of the armature color.

## Luminaire identification

60 characters long.

## Rated median useful life of luminaire (Khr)


Expected lifetime of luminaire.

## Internal control gear reference temperature

The actual temperature in the control gear.

## Rated median useful light source starts

Number of times the led-board can be started.

09:01 79%	
	<b>Driver Information</b> ZR (FF:C5:31:06:1B:D2)
[ Memory bank 1 ]	
OEM GTIN: 12165468465	
OEM Identification number: 3000235006945	
Manufacturing date: y: 25, w: 50	
Nominal Input Power (W): 38	
Power at Minimum Dimming Level (W): 0	
Nominal Min AC Mains Voltage (V): 170	
Nominal Max AC Input (V): 250	
Nominal Light Output (lm): 800	
CRI of Luminaire: 70	
CCT (K): 3000	
Light Distribution Type: 1	
Luminaire Color: RAL7024	
Luminaire Identification: 312-5410-220-10T Elton 2-SZhagaTB	
[ Memory bank 207 ]	
Rated Median Useful Life Of Luminaire(Khr): 100	
Internal Control Gear Reference Temperature: 40	
Rated Median Useful Light Source Starts: 10000	

# LUMINAIRE STATUS

## ControlGearDiagnosticBankVersion

Holds which version according to the D4i standard this memory bank is implemented with.

## ControlGearOperatingTime(s)

Counts the control gear operating time in seconds if the control gear is powered.

## ControlGearStartCounter

Counts the number of control gear starts that are induced by a power cycle of the external supply. A power cycle shall be counted if the power on time is at least 600ms.

## ControlGearExternalSupplyVoltage (Vrms)

The supply voltage provided to the driver.

## ControlGearExternalSupplyVoltageFrequency (Hz)

The supply frequency provided to the driver.

## ControlGearPowerFactor

Shows in percentage the efficiency of the driver.

## ControlGearOverallFailureCondition

Shows if there is an overall failure right now in the driver.

## ControlGearOverallFailureConditionCounter

Counts how many times there have been an overall failure condition.

## ControlGearExternalSupplyUndervoltage

Shows if the LED driver experienced a voltage below the lower end of the specified input voltage range.

## ControlGearExternalSupplyUndervoltageCounter

Counts the number of times the External Supply experienced Undervoltage.

## ControlGearExternalSupplyOvervoltage

Shows if the LED driver experienced a voltage above the upper end of the specified input voltage range.

## ControlGearExternalSupplyOvervoltageCounter

Counts the number of times the External Supply experienced Overvoltage.

## ControlGearOutputPowerLimitation

Shows if the output power of the driver was higher than the maximum allowed output power.

## ControlGearOutputPowerLimitationCounter

Counts the number times the output power was higher than the maximum allowed output power.

## ControlGearThermalDerating

Shows if the temperature of the LED driver was above the temperature derating threshold.

## ControlGearThermalDeratingCounter

Counts the number of times the temperature was above the temperature derating threshold.

11:28 76%  
Luminaire status  
ZR (FF:C5:31:06:1B:D2)

{ Memory bank number 205 }

ControlGearDiagnosticBankVersion: 1

ControlGearOperatingTime (s): 1963929

ControlGearStartCounter: 478

ControlGearExternalSupplyVoltage (Vrms): 238.1

ControlGearExternalSupplyVoltageFrequency (Hz): 50

ControlGearPowerFactor: 96

ControlGearOverallFailureCondition: 0

ControlGearOverallFailureConditionCounter: 4

ControlGearExternalSupplyUndervoltage: 0

ExternalSupplyUndervoltageCounter: 3

ControlGearExternalSupplyOvervoltage: 0

ControlGearExternalSupplyOvervoltageCounter: 0

ControlGearOutputPowerLimitation: 0

ControlGearOutputPowerLimitationCounter: 1

ControlGearThermalDerating: 0

ControlGearThermalDeratingCounter: 0

# LUMINAIRE STATUS

## ControlGearThermalShutdown

Shows if the output current of the LED driver was reduced to zero due to temperature shutdown.

## ControlGearThermalShutdown Counter

Counts the number of thermal shutdowns.

## ControlGearTemperature

Indicates the internal temperature of the control gear in degrees Celsius.

## ControlGearOutputCurrentPercent

Driver output current in % related to the nominal output current.

## LightSourceStartCounterResettable

Counts the number of light source starts that are induced by a power cycle of the external supply. This counter can be reset.

## LightSourceOperatingTimeResettable

Counts the light source operating time in seconds if the light source is powered. This counter can be reset.

## LightSourceStartCounter

Counts the number of light source starts that are induced by a power cycle of the external supply.

## LightSourceOperatingTime

Counts the light source operating time in seconds if the light source is powered.

## LightSourceOverallFailureCondition

Shows if there is an overall failure right now in the light source.

## LightSourceOverallFailureConditionCounter





Counts how many times there has been an overall failure condition in the light source.

## LightSourceThermalDerating

Shows if the temperature of the light source was above the temperature derating threshold.

## LightSourceThermalDeratingCounter

Counts the number of times the temperature was above the temperature derating threshold.

11:28    76%	
 Luminaire status	ZR (FF:C5:31:06:1B:D2)
ControlGearThermalShutdown:	-1
ControlGearThermalShutdownCounter:	-1
ControlGearTemperature:	61
ControlGearOutputCurrentPercent:	67
{ Memory bank number 206 }	
LightSourceStartCounterResettable:	2605
LightSourceStartCounter:	2605
LightSourceOnTimeResettable(s):	1716410
LightSourceOnTime(s):	1716410
LightSourceVoltage(V):	44.9
LightSourceCurrent(mA):	693
LightSourceOverallFailureCondition:	0
LightSourceOverallFailureConditionCounter:	15
LightSourceShortCircuit:	0
LightSourceShortCircuitCounter:	12
LightSourceOpenCircuit:	0
LightSourceOpenCircuitCounter:	2
LightSourceThermalDerating:	0
LightSourceThermalDeratingCounter:	1

# LUMINAIRE STATUS

## LightSourceThermalShutdown

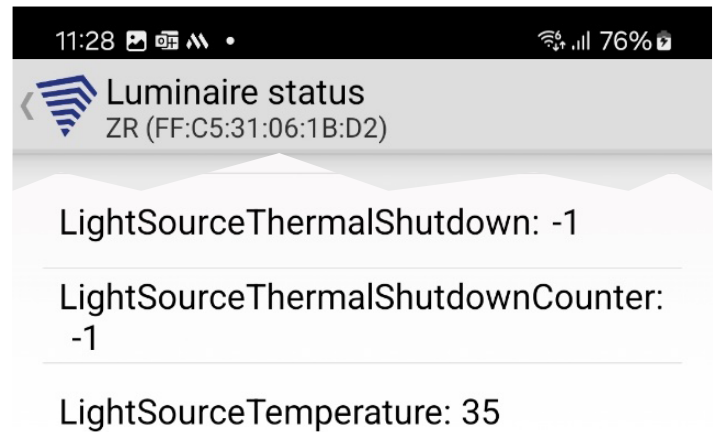
Shows if the output current of the light source was reduced to zero due to temperature shutdown.

## LightSourceThermalShutdownCounter

Counts the number of thermal shutdowns.

## LightSourceTemperature

Indicates the internal temperature of the light source in degrees Celsius.



# CHOOSE PRISMATIBRO

## QUALITY AND SAFETY

- Certified according to ISO 9001
- In-house development, production, sales, and service organization
- Flexibility and innovation
- Continuous improvement
- Favorable delivery time

## SUSTAINABILITY

- Sustainable products with long lifespan
- Certified according to ISO 14001
- Production based on customer orders
- Philanthropic work and sponsorship
- Environmentally-friendly features
- Contributes to the SDGs:



## GLOBAL AND LOCAL

- Development and manufacturing in Tibro, Sweden
- Products in 118 countries
- Further expansion in terms of geography and volume

## EXPERIENCE AND CONTACT

- 35 years of experience
- Addtech Group
- Dedicated staff
- Flexibility and continuity
- Strong customer trust
- Personal and quick support



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