Prisma Daps

DIGITAL ACOUSTIC PEDESTRIAN SIGNAL

2000

ANDROID-APP MANUAL VERSION 2.9

PRISMATIBRO

INDEX

Index 2
General description 3
Installation of app for Android 4
Choose your unit 5
User interface 6
User interface 7
Programming 8
Configuration 9
- Phases 10
- Locating sound 10
- Buttons 11
  - Settings for direct or extended push 12
  - Red Phase 12
  - Sound change 13
  - Internal/External loudspeaker 13
  - Voice messages 14
- Voice messages 15
- Wires 16
- Lights 17
- Relays 18
- Vibrator 18
- RFID 19
- Error detection describtion 20
- Error detection main menu 21
- Error detection menu mic 22
- Error detection relay signalling 23

Presence detection 24
- Touchless demand 24

System parameters 26
Sound - Record and upload sound/audio files 28
Transferring via USB, NFC or Bluetooth 29
- USB communication 29
- NFC and Bluetooth communication 30

Communication 31
- File transfer 31
- Factory settings 32
- Show Prisma Daps information 33

CUSTOMER SUPPORT
+46 504 400 40
support@prismatibro.se

GENERAL DESCRIPTION

Prisma Daps 2000 is one of the world's most developed pedestrian signals. Quality by Design, excellent performance and well adjusted functions are included in the price.
Prisma Daps 2000 has a new base platform with intelligent electrical design and modular interface for good matching to different traffic controllers world wide. It has bigger flexibility and more functions such as improved sound settings, higher and brighter LED light ring, advanced radio frequency identification, smart ambient noise control, up to 3 wires for communication and a more powerful vibrator. Prisma Daps 2000•L could also be provided with Detect – sensor technology and presence detection. Settings installed through a user friendly Android App transferred via Bluetooth, NFC or USB.
Two different versions, Large and Medium, makes it easy to find the correct model according to required functionality. All products from PrismaTibro Sweden are delivered programmed from factory according to your requirements.

PROGRAMMING

Prisma Daps 2000 is programmed from the Android App: Prisma Daps.
Choose your unit - Set your functions - Transfer settings and files.

FIRMWARE

Prisma Daps 2000-series must have firmware 2.9.0.0 or higher to use a configuration file created by App 2.9.
Please see compatibility information on page 6.

PRISMA DAPS 2000•L

Is equipped with NFC antenna in the top cover (until May 2022) or Bluetooth (from June 2022) for wireless communication without opening the Prisma Daps unit. You can also use the USB-port which is placed behind the LED in front.

PRISMA DAPS 2000•M

Is equipped with USB-port behind the LED in front.

ANDROID DEVICE

Minimum requirements: Android 7 or above.
For NFC communication an Android 7-10 device with NFC Beam is required.

DISPLAY RECOMMENDATIONS

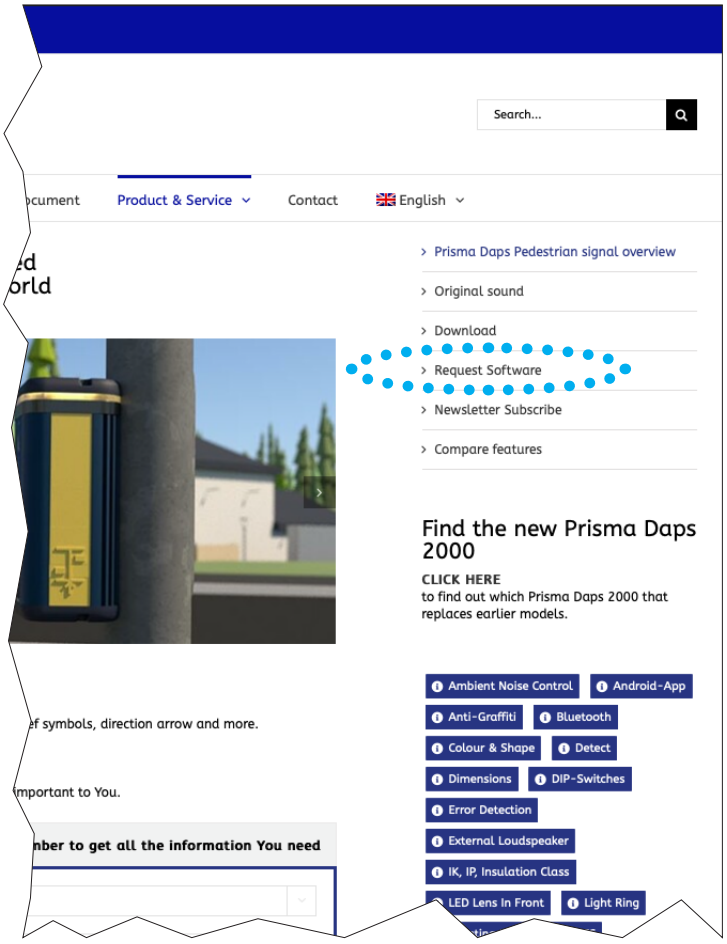
5.1" display with 1920x1080 pixels (FHD) or higher.

NOTE

From Android 10 and later, Google has officially removed support for file transfer between NFC peers (Android Beam).
This impacts transfer of configuration files, firmware and audio files from Prisma Daps App to Prisma Daps.
Some vendors of Android devices might have support for NFC file transfer in Android 10, but none have in Android 11.
We recommend using Android 9 for full NFC functionality.
Programming for Prisma Daps 2000 is NOT backward compatible to previous series Prisma Daps 1000 or Prisma Daps TS-900.

INSTALLATION ANDROID APP

Android app provided by PrismaTibro, Sweden – not available in Google Play Store.
Request Android-app at **prismatibro.se Click the address!**



NEW INSTALLATION

1. **Download the installation file from the link**
   PrismaDaps2App-2.9.0.0.apk
   This is app installation package containing
   Prisma Daps firmware and release notes.

2. **Open the PrismaDaps2App-2.9.0.0.apk for installation**
   In settings/security "Allow Unknown sources" shall be enabled to allow installation of the App.
   Prisma Daps firmware is included in the App installation package and will automatically be installed in the /Prisma/app folder on your Android device.
   It is available for upload to Prisma Daps from the App Com/Export menus.
   Release Notes will be installed in the /Prisma/releasenotes folder on your Android device.
   The folder /Prisma/audio contains all standard PrismaTibro soundfiles. Customer specific sound files must be copied manually to this folder to be used in the App.

UPGRADE TO LATEST VERSION

1. **Download the installation package**
   PrismaDaps2App-2.9.0.0.apk from the link in e-mail.
   The installation package includes Prisma Daps firmware and release notes.

2. **Uninstall the old version of the application**
   Previous configurations and sound files will not be deleted.

3. **Start file manager**
   Find PrismaDaps2App-2.9.0.0.apk
   Open the file for installation.
   Prisma Daps firmware is included in the App installation package and will automatically be installed in the **/Prisma/app** folder on your Android device.
   It is available for upload to Prisma Daps from the App Com/Export menus.
   Release Notes will be installed in the **/Prisma/releasenotes** folder on your Android device.

NOTE

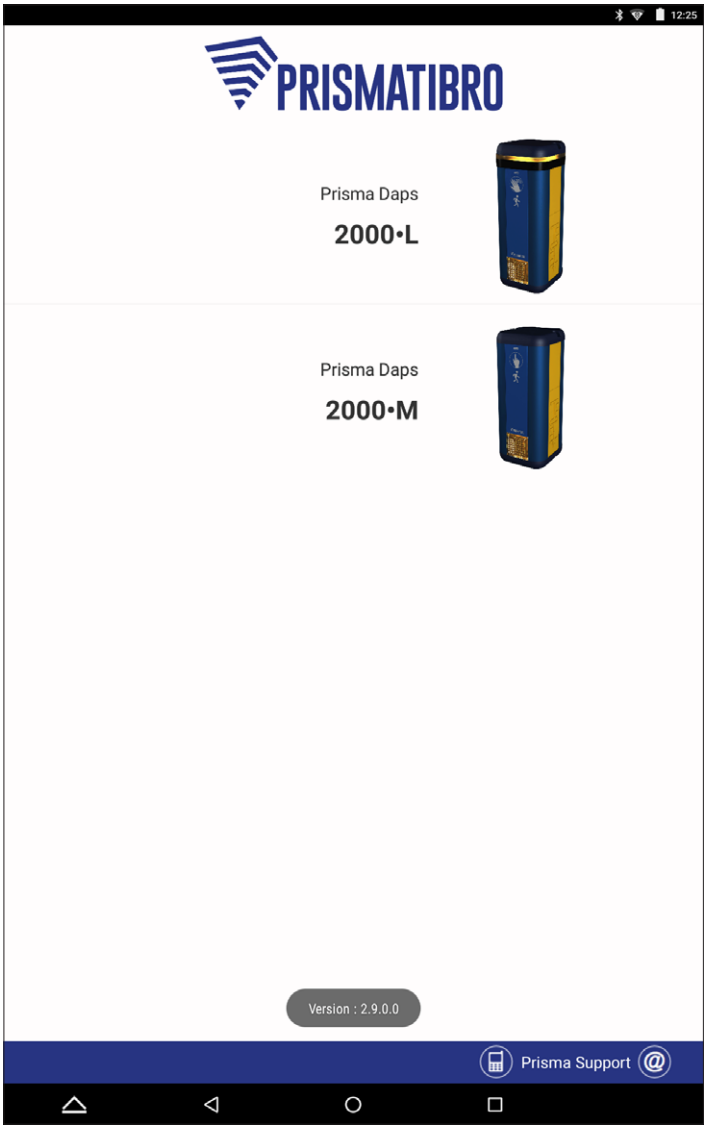
When starting the App for the first time, permissions for storage and location (for bluetooth functionality) needs to be granted. It may look a little differently depending on your device and Android version.

CHOOSE YOUR UNIT

Prisma Daps 2000•L or Prisma Daps 2000•M
The labeling on both the electronic module as well as the backside of the Prisma Daps housing gives you information about the model you have.

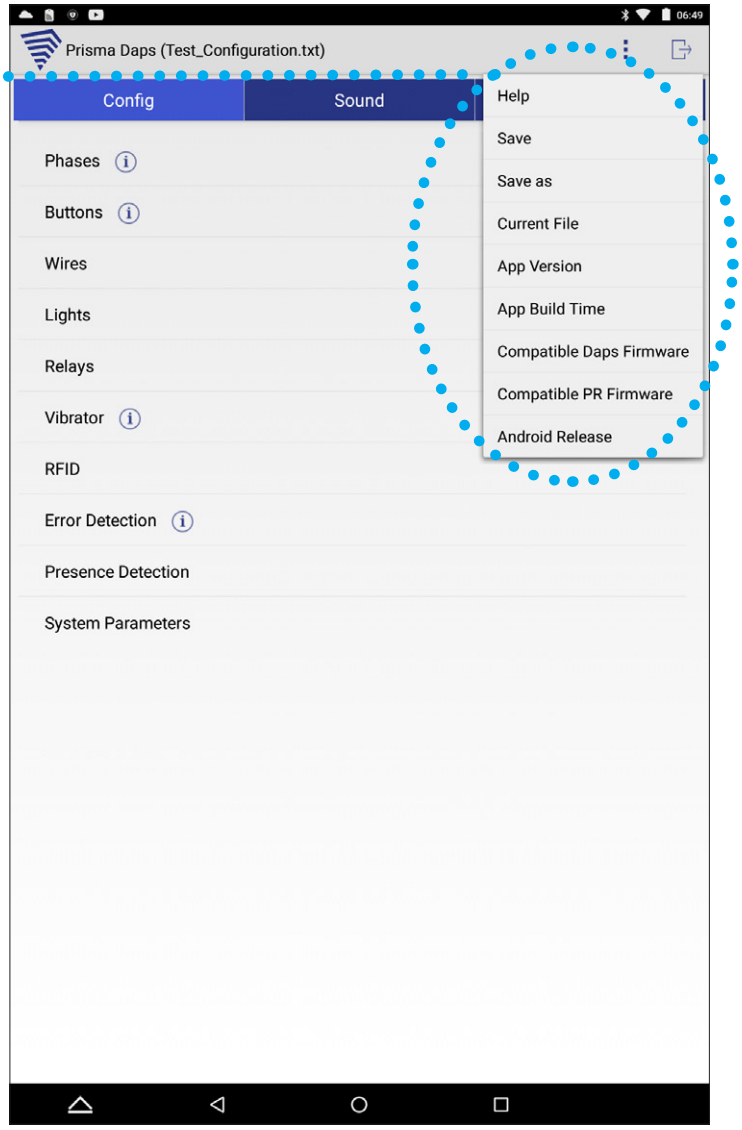
NOTE!

When you open up the app you will, for a few seconds, see which version of the application you currently have, on the bottom of the screen.



USER INTERFACE

MENU



Help — In near future the manual is found here.

Save — Save the file you are working with.

Save as — Save as: "filename of your choice"

Current file — Shows the name of the file you 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 Prisma Daps Firmware — Prisma Daps firmware version that is compatible with this App version. Prisma Daps must have this firmware version installed before a configuration created with this App version is uploaded to Prisma Daps.

Compatible PR Firmware — PR firmware version that is compatible with this App version.

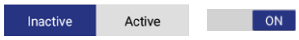
Android Release — Android version running on this device.

USER INTERFACE

EXIT

Exit the application.
You get the choice to save changes: YES or NO.

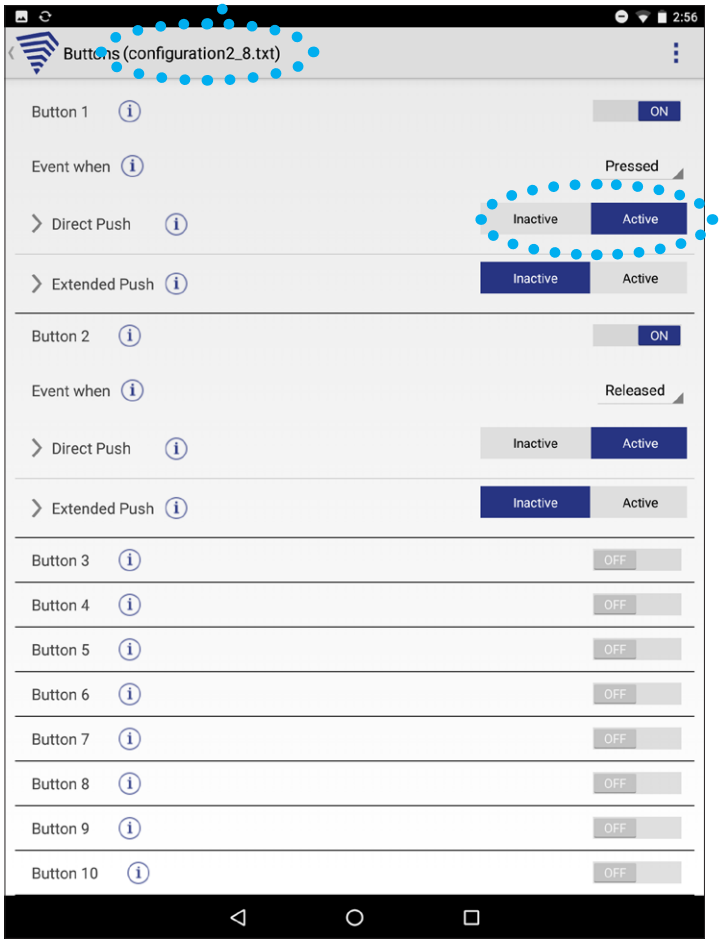
Chosen
Your chosen alternative is always blue

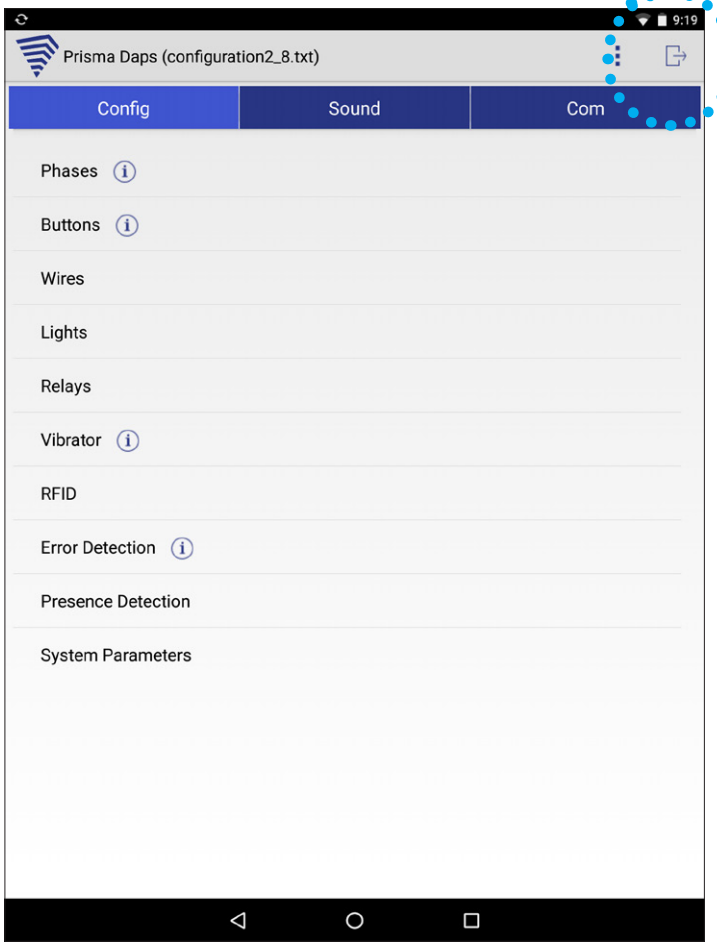


and the non chosen is gray

More information
Click this symbol to retrieve more information

Current configuration
Always shown in the header.





PROGRAMMING

WHAT DO YOU WANT TO DO?

1. **Start a New Configuration**

2. **Copy an Existing Configuration**
   If you want to start with the standard settings from Sweden you find Sweden_date.txt under "Select a File".

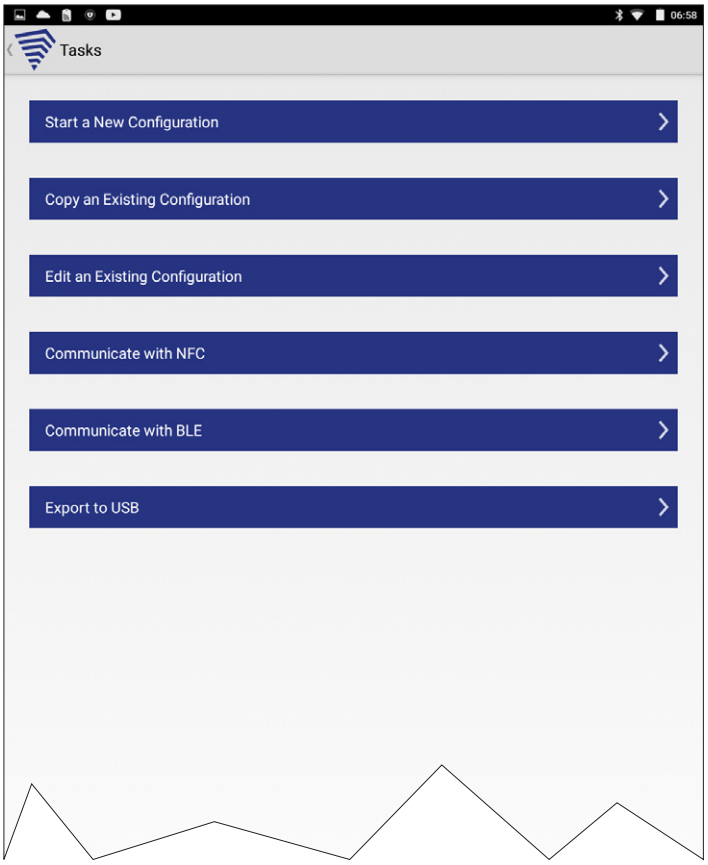
3. **Edit an Existing Configuration**
   This option is only available when you have configurations saved.
   Grey = Not available

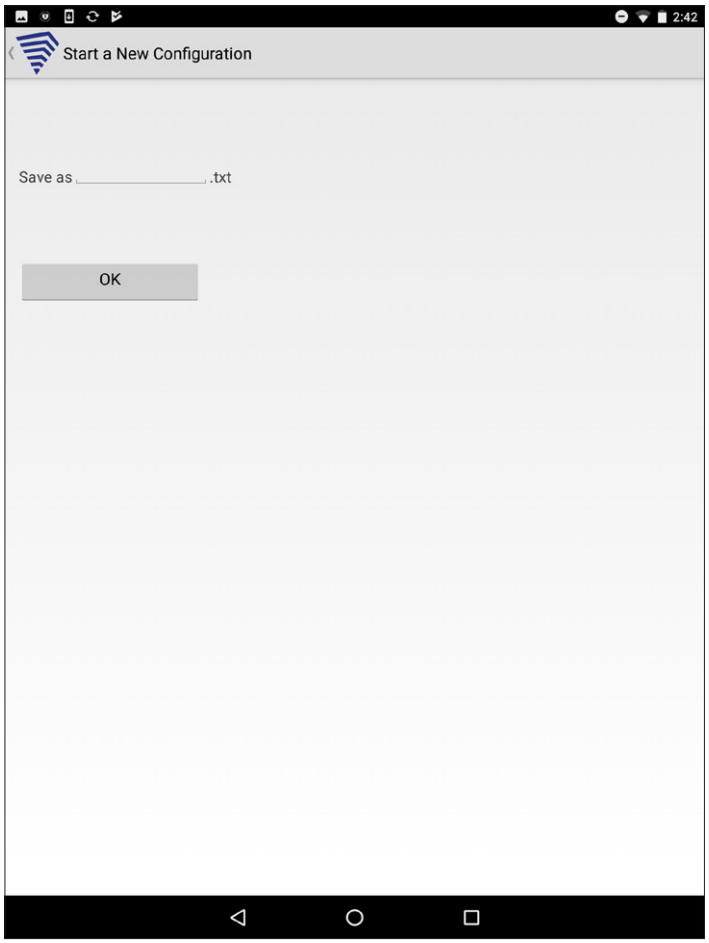
4. **Communicate with NFC**
   Enter your 4-digit pin code.
   Put the android device on the top cover of Prisma Daps to log in.
   For instructions see page 30.

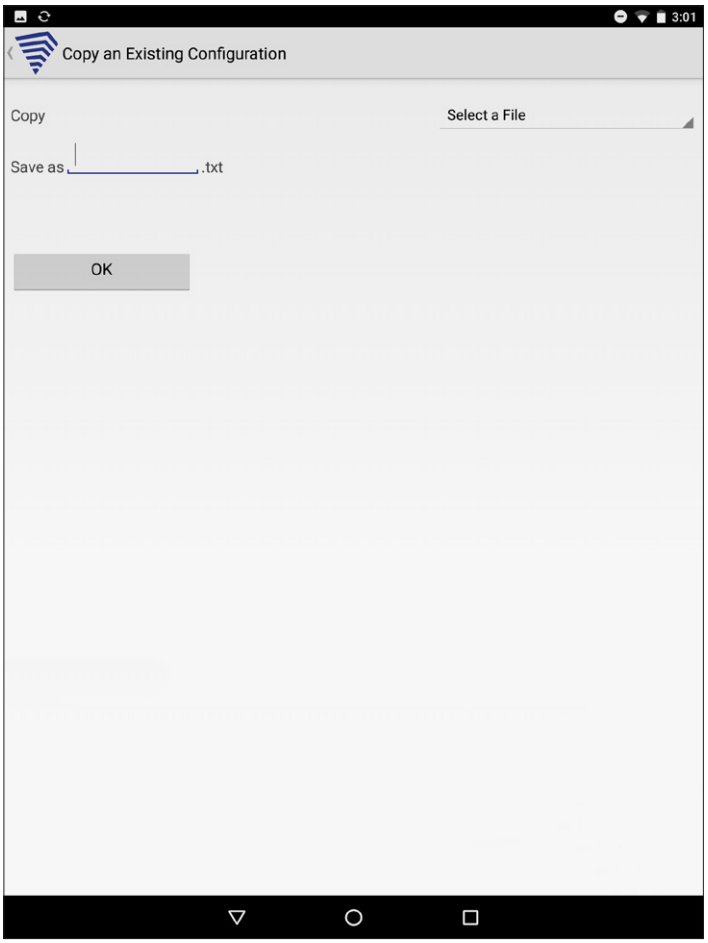
5. **Communicate with BLE (Bluetooth)**
   Enter your 4-digit pin code and press Log In to proceed to scanning page.
   For instructions see page 30.

6. **Export to USB**
   Connect the USB memory into your android device.
   For instructions see page 29.

Regardless of choosing 1, 2 or 3, the configuration menu will look the same.





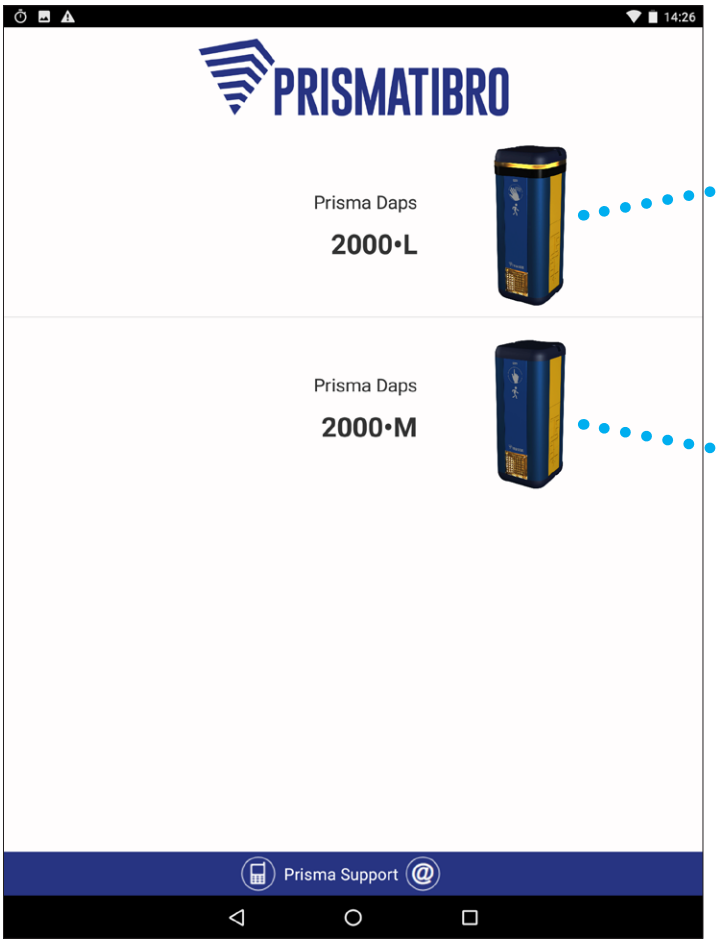


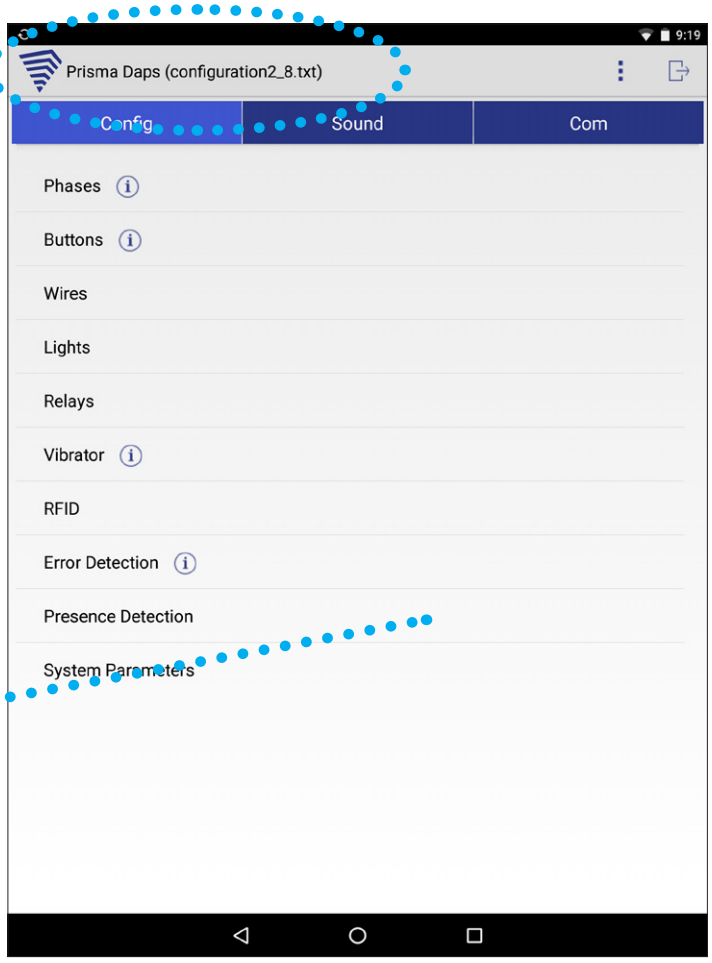
CONFIGURATION

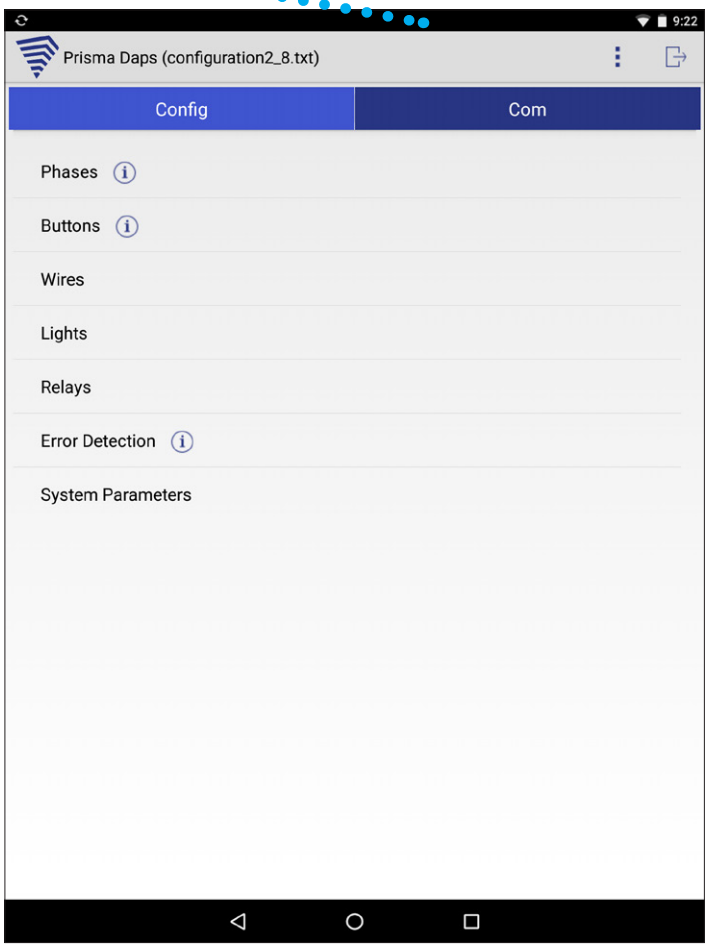
This is where you set all functions. You can easily find them divided into chapters.
Name of the configuration file is shown in the header.

CONFIGURATION MENU

Prisma Daps 2000•L at the right,
Prisma Daps 2000•M below.







CONFIGURATION

PHASES

Activate the phases that are being used in actual intersection
- **RED** Phase
- **GREEN** Phase
- Flashing **RED** Phase
- Flashing **GREEN** Phase
- **YELLOW** Phase

Incorrect settings for sound and pulse frequency on red and green phase can put lives at risk. Please check your settings very carefully so they are correct.

BUTTON ACTIVATION

When a phase is entered, a virtual button can be activated.
The function should be configured under "Buttons".

LOCATING SOUND FADE OUT

• The volume of the locating sound could be ramped down at the end of phases. Fade Out setting is set as a value in %.
The value 10% means that the volume starts to be ramped down when 10% of the estimated phase length remains.
The fade out function is only applicable in installations where the length of phases is controlled by a fixed timer and not by a traffic controller which is the normal case.
This setting is only visible if Sound Fade Out is enabled in System Parameters.

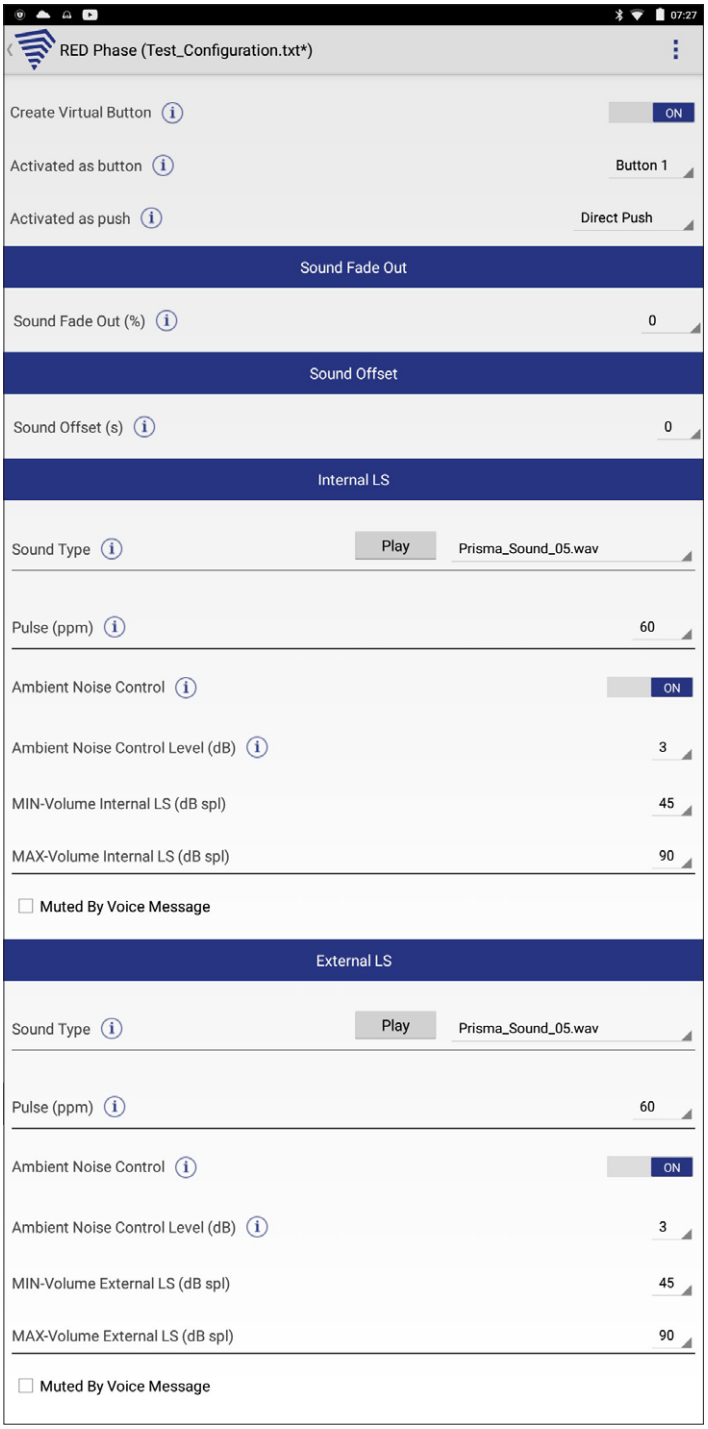
LOCATING SOUND OFFSET

• As a help for visually impaired persons to localize the direction, the tick sound could be played with a certain time offset for Prisma Daps units so that the tick sound is no longer synchronized between all Prisma Daps units in an intersection.

LOUDSPEAKER SETTINGS

Each phase has to be individually set for internal and external loudspeaker with these settings
- Sound type (16 standard sounds and your own uploaded/recorded sounds)
- Puls rate 30-750 pulses per minute.
- Min and Max volume, 0-90dB SPL.
- Noise control ON/OFF and Noise control level

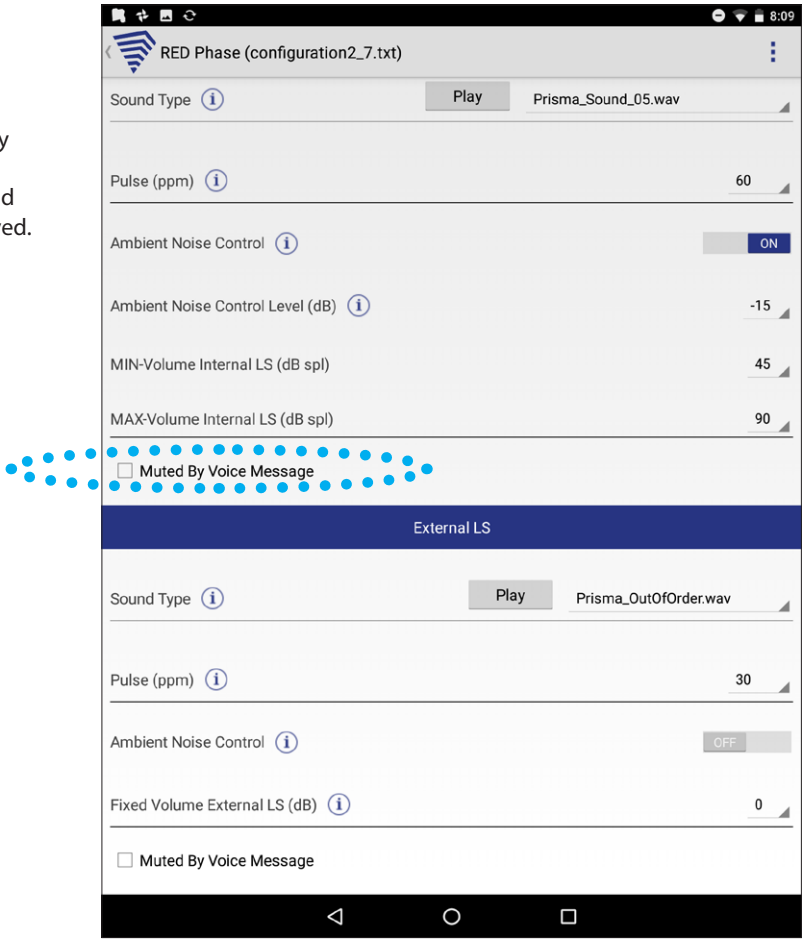
To make sure the locating sound is audible for the pedestrians you have to choose how much louder it should be than the ambient noise.
It can be adjustable in steps of 1 dB over ambient noise, from -15dB to +15dB .
Note that min and max volume will keep the sound with in the limits if the ambient noise is too loud.



CONFIGURATION

VOICE MESSAGE

- When a Voice Message is being played the sound will normally be mixed with the locating sound. If this is not wanted the Muted By Voice Message could be checked. The locating sound will then be muted as long as any voice message is being played.



BUTTONS

There are 10 available buttons that can be used both regularly and virtually
Push buttons can activate several functions, such as notification sound and light, spoken messages, adjust sound volume, extended green time or relay control.
These functions can be activated immediately at push, and/or at an extended push "hold" of 2 seconds.

You can adjust the "hold" time under the chapter "System Parameters".
All demand tones can be set for internal- or/and external loudspeaker.

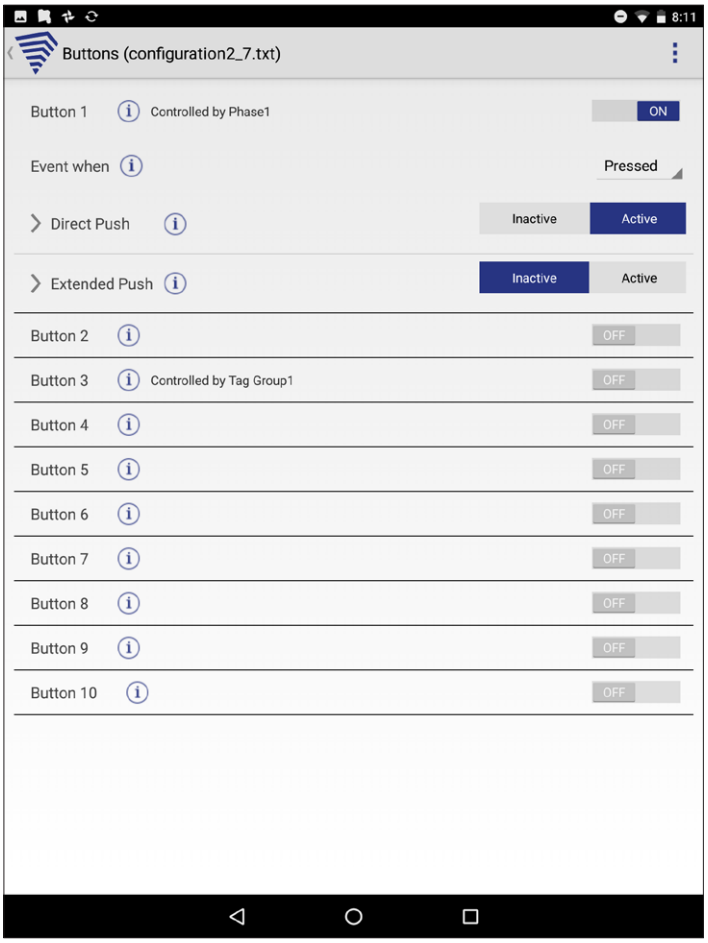
Button 1 is normally the push front.

Button 2 is normally the vibrator plate with push button, on the bottom lid.

Button Event Mode This is a setting used to define if the button is regarded as activated when it is pressed or released.

Direct push
Generally activated in 0.5 second.
Adjustable in "System Parameters".

Extended Push
Activated by a push which is longer than the time for "Direct Push".



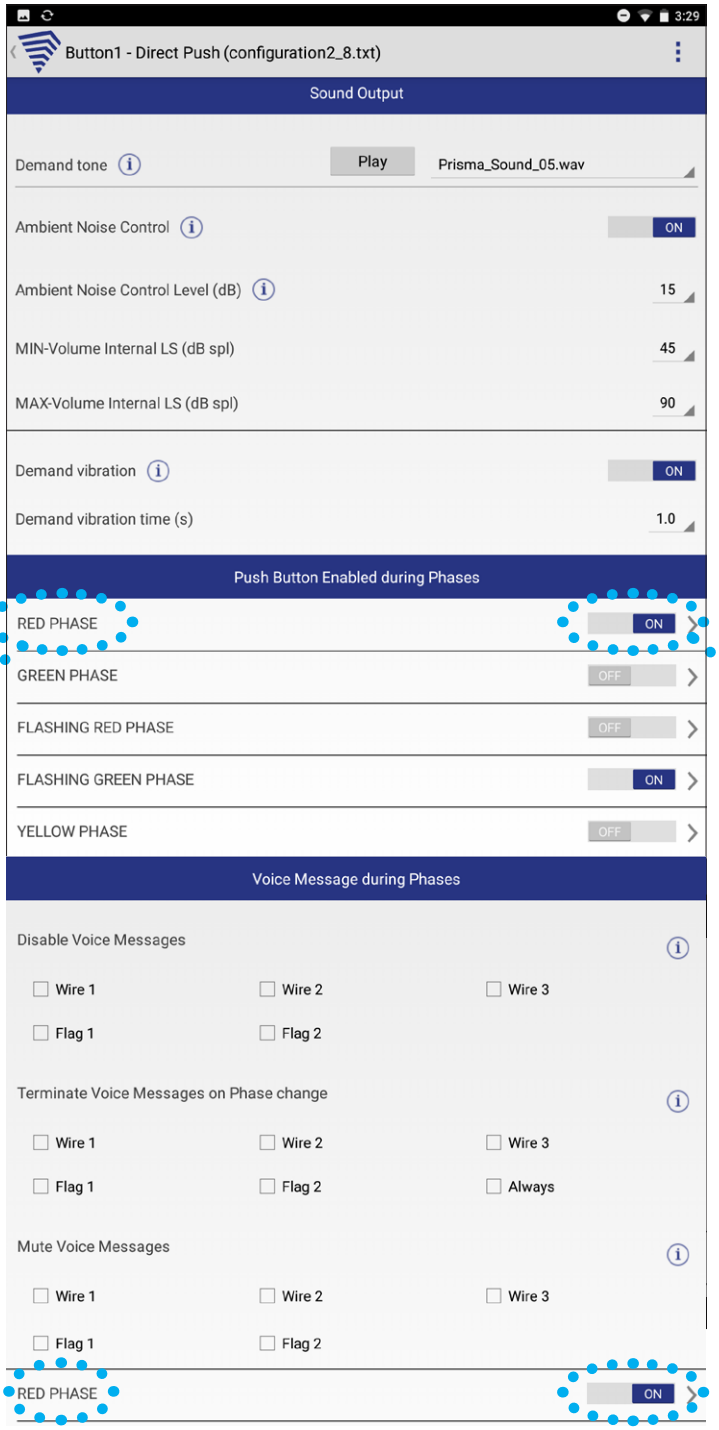
CONFIGURATION

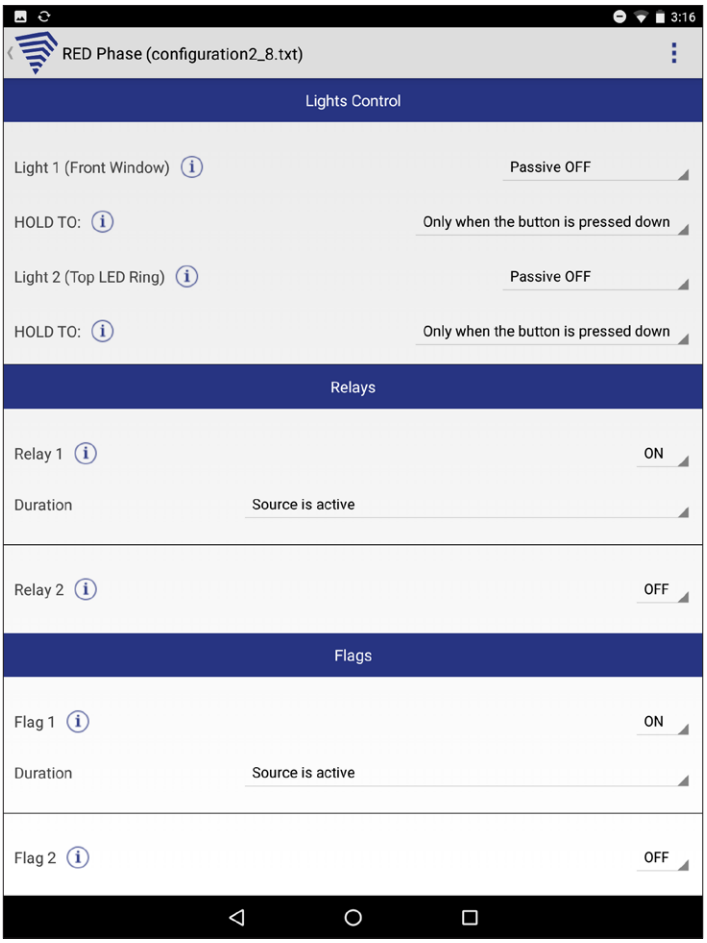
BUTTONS
SETTINGS FOR DIRECT OR EXTENDED PUSH

- **Demand tone**
  The instant confirmation of your push.
  Choose from all sounds in the sound library.
  PrismaTibro recommend Demand tone: Prisma_Sound_15.wav
- **Ambient Noise control ON/OFF**
- **Noise control level**
  You choose sound level in relation to the ambient noise level.
  Can be set from -15dB under to +15dB over the ambient noise level in steps of 1 dB .
  Note that min and max volume will keep the demand tone within the limits of your choice.
- **Min volume/Max volume**
  The min and max limits of the demand tone.
- **Demand Vibration**
  On demand the vibrator could be activated for 1-3 seconds.
  The demand vibration has higher priority than the function "Vibrator ->Temporary activation from Buttons".

DISABLE FROM WIRES

- When you want the push function disabled when wire 1, 2 or 3 is active.





RED PHASE

- Enable on actual phases.
- Lights - set the functions of the lights.
- Relay 1 and 2 - activate a relay signal to the controller and select how long the relay shall be closed.
- Activation of Flag 1 and Flag 2.
  Flags 1 and 2 - memory cells that could be activated by a button push.
  A flag can then activate a Voice Message or Sound Change.

SOUND CHANGE DURING PHASES
VOICE MESSAGE DURING PHASES

Continued on next page.

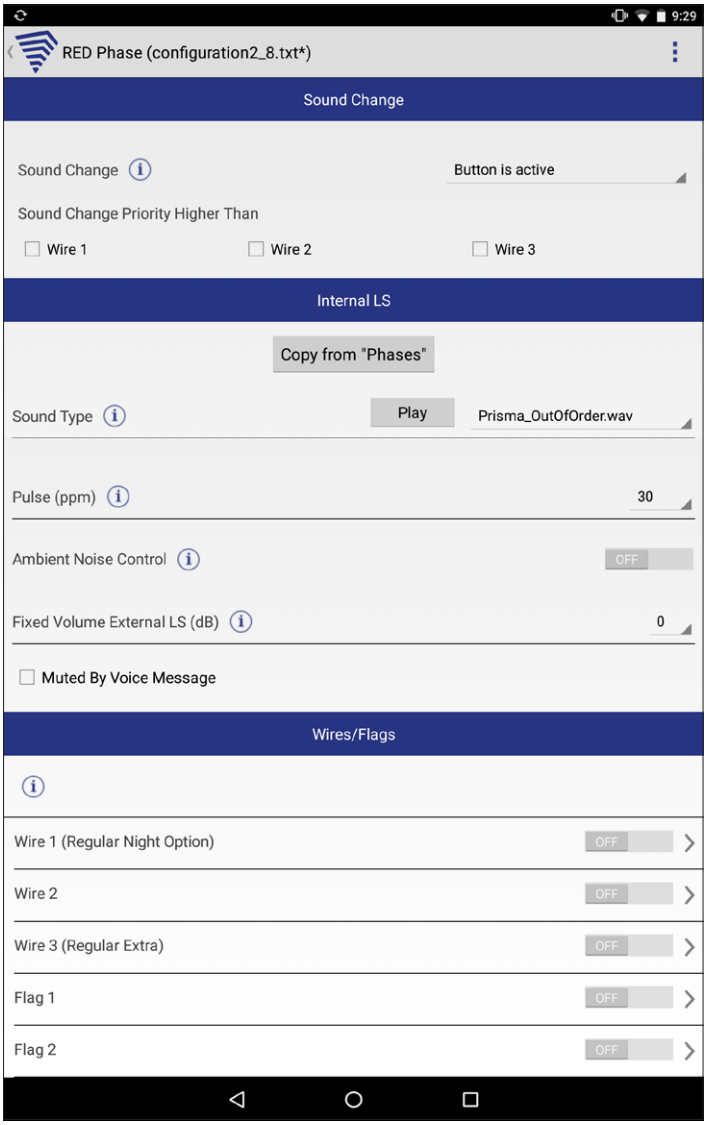
CONFIGURATION

BUTTONS SOUND CHANGE

This can be used for example during night mode if you want an increased sound, or sound at direct push even when all other sounds still are in night mode.

Locating sound

- Always when button is active
- Until next phase shift
- Until next red phase
- Until next green phase
- Until next shift to same phase
- Until secound shift to same phase
- Until third shift to same phase
- Sound change priority higher than wire 1, 2 or 3 (Wire 1 is night option)



LOCATING SOUND INTERNAL/EXTERNAL LOUDSPEAKER

Copy from Phases

Use this when you want to get your basic sounds that has already been programmed in Phases.
Then you can make changes.
Each phase has to be individually set for internal and external loudspeaker with these settings:

- Sound type
- Puls rate 30-750 pulses per minute.
- Min and Max volume, 0-90dB SPL.
- Noise control ON/OFF and ambient noise control level

Choose sound level in relation to the ambient noise level.
Can be set from -15dB under to +15dB over the ambient noise level in steps of 1 dB.

LOCATING SOUND, SOUND CHANGE CONTROLLED BY WIRES/FLAGS

If the user wants to set the different button sound change when a wire is active, this can be achieved by enabling wire 1-3.
Then specific settings could be made for each wire.
This is useful for example if wire 1 is used as night option signal and you have button sound change but with a lower sound level than during the day.

- Sound Changes could also be controlled by flags.

NOTE

Your min and max volume will keep the sound in its limits if the ambient noise is too loud.

CONFIGURATION

BUTTONS VOICE MESSAGE

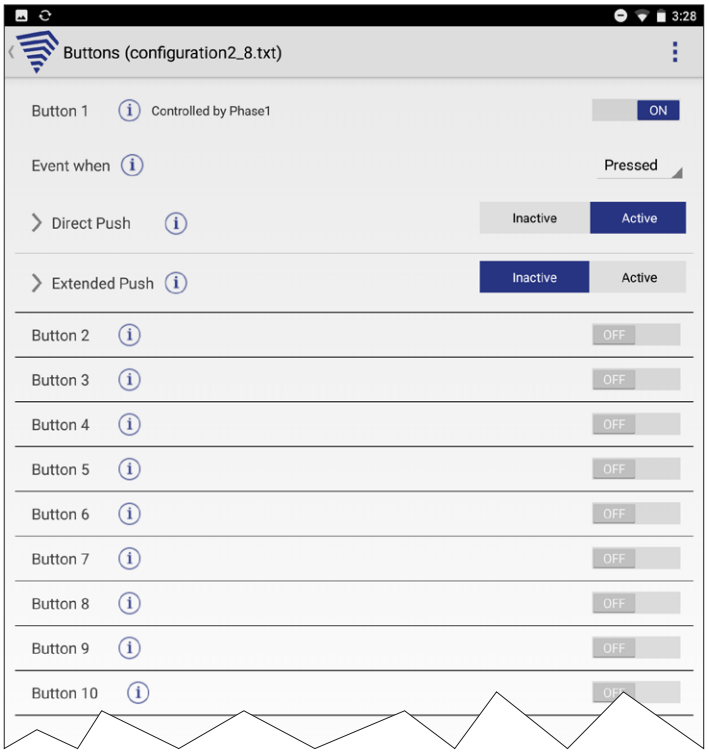
When a button is activated by Direct Push or Extended Push a voice message could be played.
External wires 1-3 or flags 1-2 could be used to control the voice message behavior.

Disabled - If a wire is active already when a button is pressed, no voice message will be played.

Termination - If a button is pressed and a voice message is being played and then a wire goes active, the voice message could be terminated on the next phase changes.

Muting - If a button is pressed and a voice message is being played and then a wire goes active, the voice message could be muted as long as the wire is active..

Voice Message audio file and sound setting could be set for each phase. It is possible for each phase to have separate voice message sound settings depending on if different wires and flags are active.



CONFIGURATION

VOICE MESSAGES

For each phase a specific voice meassage sound could be configured.
Set the a phase, for example
- RED PHASE, to ON and tap the row to open the RED PHASE settings.

The standard sound settings for internal and external loudspeaker are made here and these will normally be used when the button is activated. However, it is possible to have different sound settings that will be used if a wire or flag is active when the button is pressed. If you want to have a different sound settings if wire 2 is active, set wire 2 to ON, tap the row and continue with wire 2 sound settings.
Wire 1 has highest priority and Flag 2 has lowest priority.

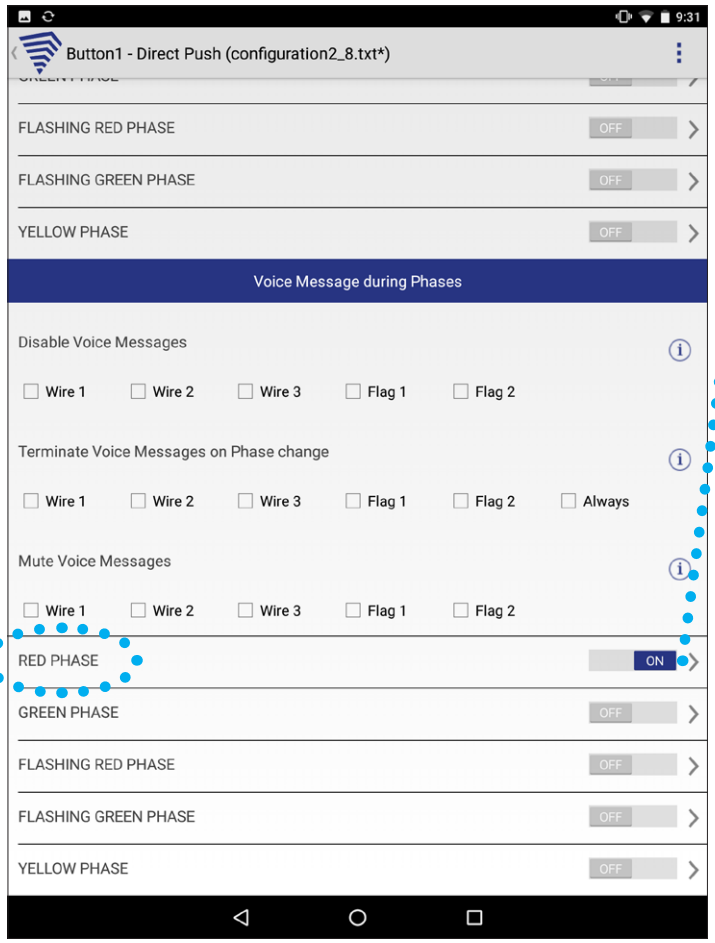
- Repetition Period could be set to play a voice message on an interval for example 20s. The value 0 means no repetition.

NOTE

- The wire controlling voice message has higher priority than direct push.

- If you have recorded a new or uploaded a voice message this file has to be separately sent to all Prisma Daps 2000•L units. See instruction under chapter Communication and Send files.

Settings for Direct or Extended push controlled by Button



Settings for Direct or Extended push controlled by Wires

CONFIGURATION

WIRES
Wire 1 normally used for night option
Wire 2 normally used for wait signal
Wire 3 extra input

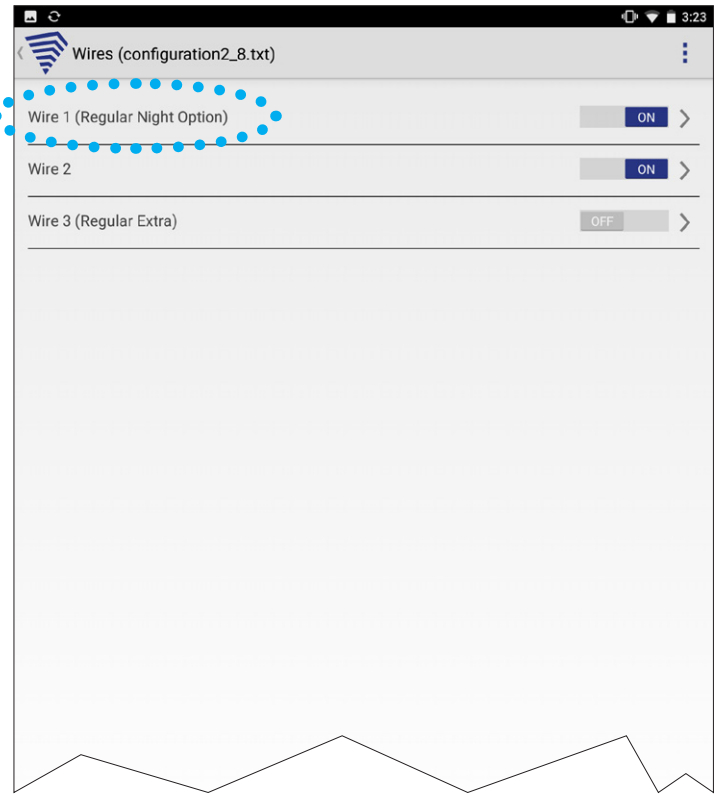
INVERSE LOGIC
The wire inputs could be set to use inverse logic.

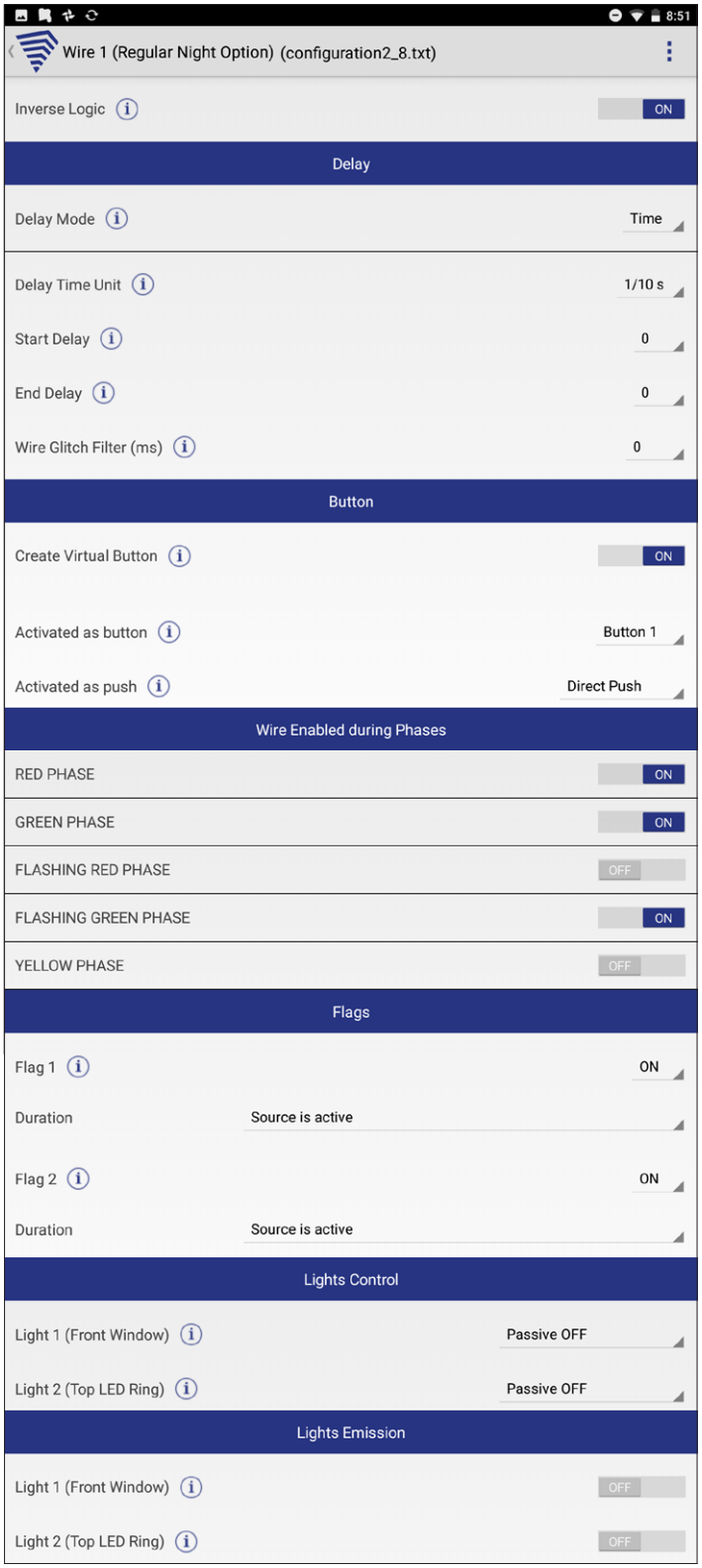
WIRE DELAY
• A delayed activation and/or deactivation for wire inputs can be selected. The setting "Delay Mode" defines if delay is configured in time units or as events like phase changes (a duration is set).

BUTTONS
Activation of button from wire OFF/ON
• Activated as button (1-10)
• Activated as push - Direct push/Extended push/Wire controlled Use
Use "Activation of Button" when you want an extended function.
Can then be configured as a button in the Buttons menu.
For example special functions for sound, lights, relay and more.

FLAGS
• A wire could activate Flags.

LIGHTS CONTROL
• Light 1: LED in front
• Light 2: LED light ring





LIGHTS EMISSION
• Light 1: LED in front
• Light 2: LED light ring
• Wire controlled light emission.
Light intensity can be controlled by wires.

SOUND CHANGE
• Sound change during Phase
Activate Sound Change when you want a different volume or sound as night option. You program actual phases separately for internal and or external loudspeaker.

CONFIGURATION

LIGHTS

Light 1 - LED in front
Light 2 - LED light ring

OFF•ON•FLASHING

Mode

When you want the LED in front or LED light ring to lit up continuously during active phases.

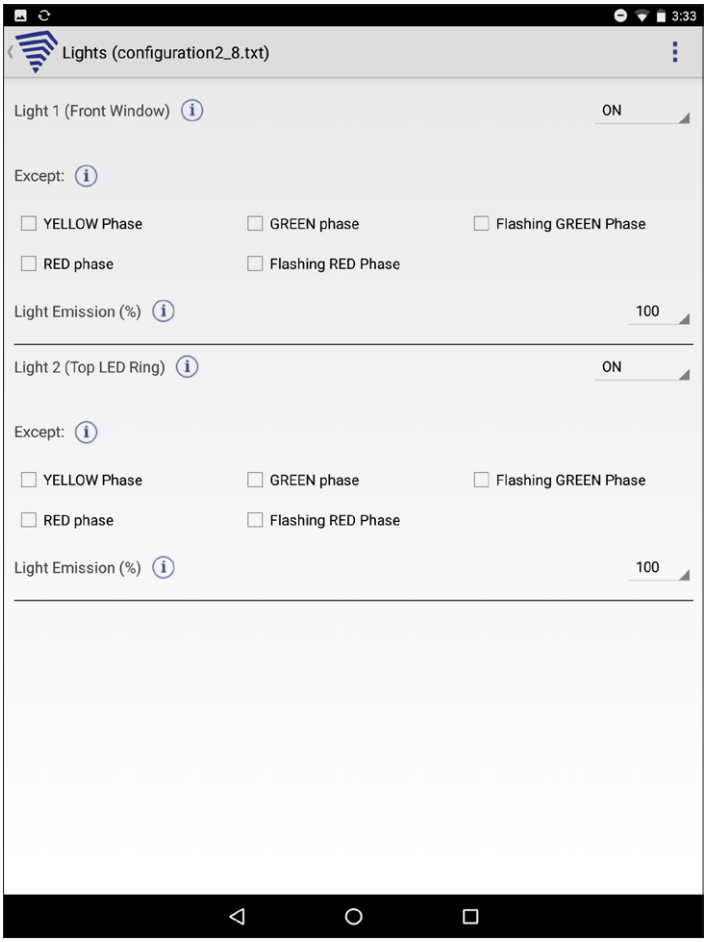
Controlled by wire

Choose a wire to control the light - wire 1, 2 or 3.
(Can not be used in combination with ”Always on”)

Light emission

Choose how bright the light shall lit - from 0-100%

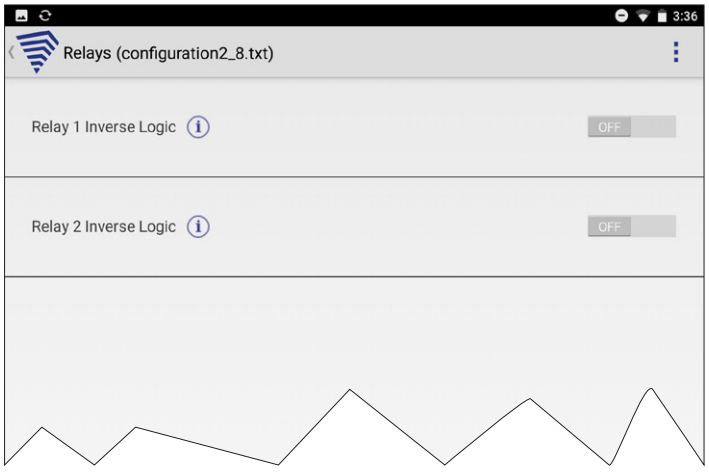
The max value that could be set for emission of Light 2 is defined by a setting in System Parameters.
A light could be set to OFF, ON or FLASHING. If FLASHING is selected, the period is set in the System Parameters menu.



CONFIGURATION

RELAYS

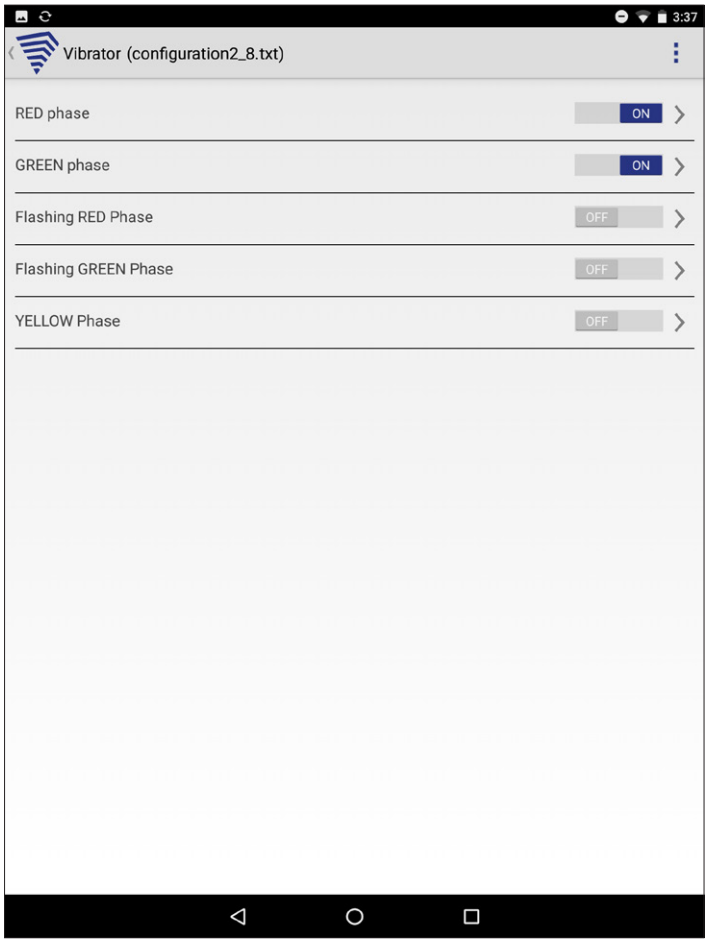
It is possible to have Inverse logic at relay 1 and 2.
OFF: Normally open (NO)
ON: Normally closed (NC)

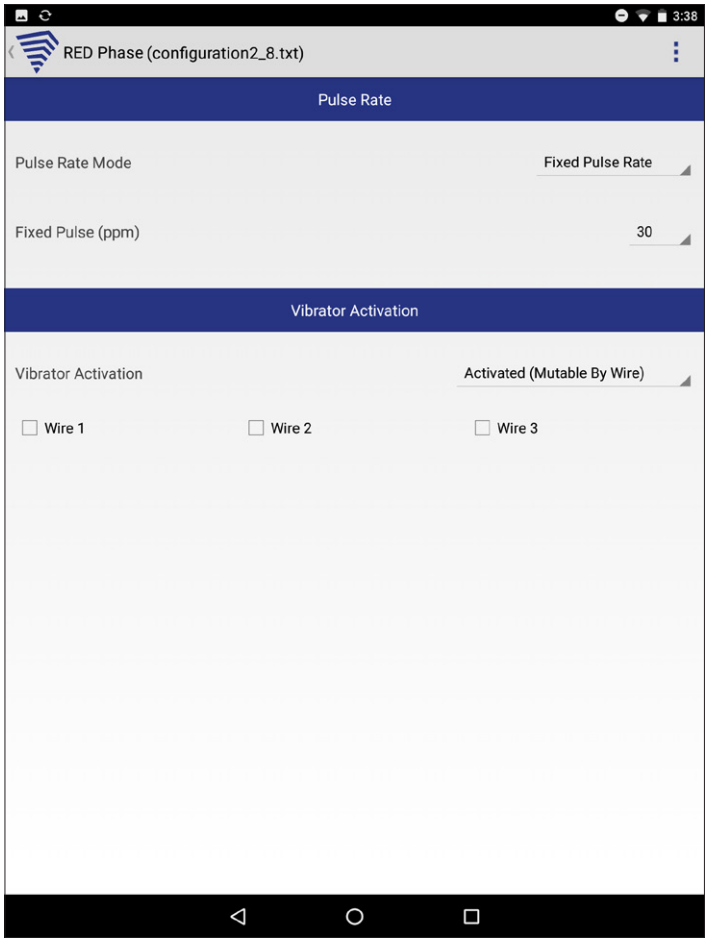


VIBRATOR

This menu only exists for Prisma Daps 2000•L
The vibrator is individually set for all phases,
Pulse Rate Mode
The vibrator pulses could either follow the localization sound or to be activated at a fixed rate.
The fixed pulse rate range is 30-600 ppm.
Vibrator activation
The vibrator could be activated in three ways.
Always Activated, Always Activated (Mutable By Wire) or Temporarily Activated By Button.
If Temporarily Activated By Button is selected, a setting in System Parameters defines if a Direct Push or Extende Push shall activate the vibrator.

- Choose Follow sound Pulse or Fixed Pulse Rate.
- You can have the vibration always ON/OFF or Mutable by wire 1, 2 or 3.
- A temporary activation from button 1-10.





CONFIGURATION

RFID

This menu is only applicable for Prisma Daps 2000•L-series equipped with NFC antenna in the top cover and manufactured until May 2022.
It is easy to add RFID tags and start using it.
It is possible to configure up to 16 different tag groups for different functions or geographical areas separated with a code consisting of up to 10 digits.
Each group can have numerous of tags with the same code.

You have to enable each group and direct to a virtual button (Button 3-10).
If you have many groups you can direct them to different buttons and have different functions or messages.
The functions for actual buttons are configured in the menu Buttons.

NOTE

RFID for Prisma Daps 2000•L is high frequency and not backward compatible to previous series Prisma Daps 1000 or Prisma Daps TS-900 which used with low frequency RFID.
That's why to match both Prisma Daps 1000 and Prisma Daps 2000•L, RFID combi-tag can be selected which is a combination of both high and low frequencies.

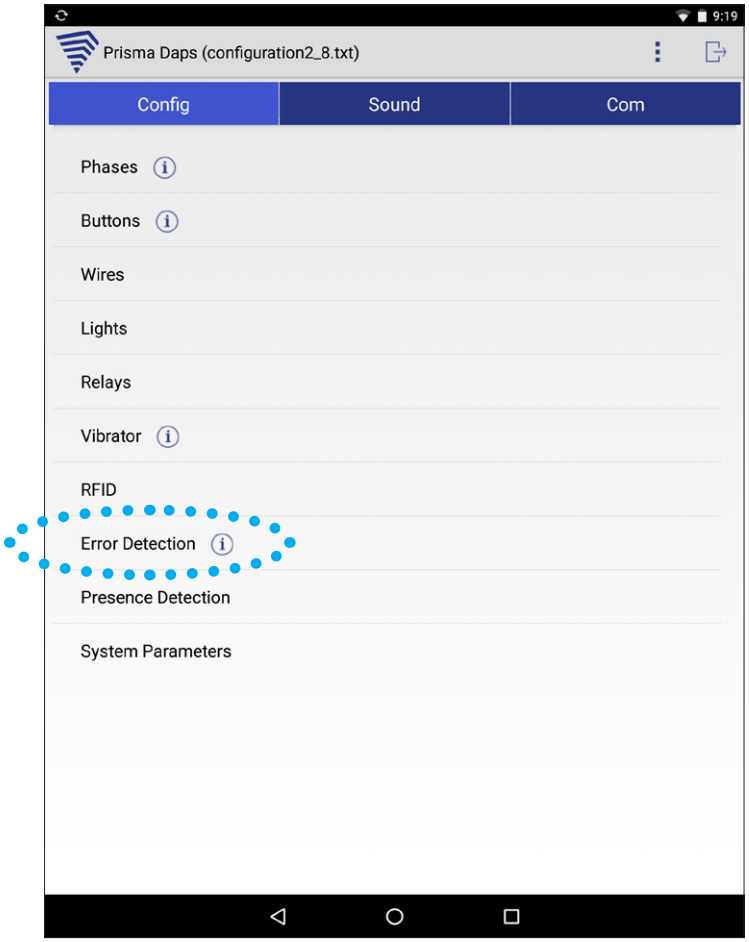
ERROR DETECTION

DESCRIPTION

Prisma Daps 2000 is able to detect internal errors and report them to the traffic controller.
The following components can be monitored:

- Microphone
- Loudspeaker
- Vibrator
- Watchdog
- Mother Board Supply
- Relay 1
- Relay 2
- NFC
- Push Front
- Red and Green lamp always ON
- Red and Green lamp always OFF
- Presence Sensor
- Sound Amplifier
- Sound File
- Configuration
- External Module 1
- External Module 2

An error may also be indicated locally on the Prisma Daps by turning the red error LED on or flashing.



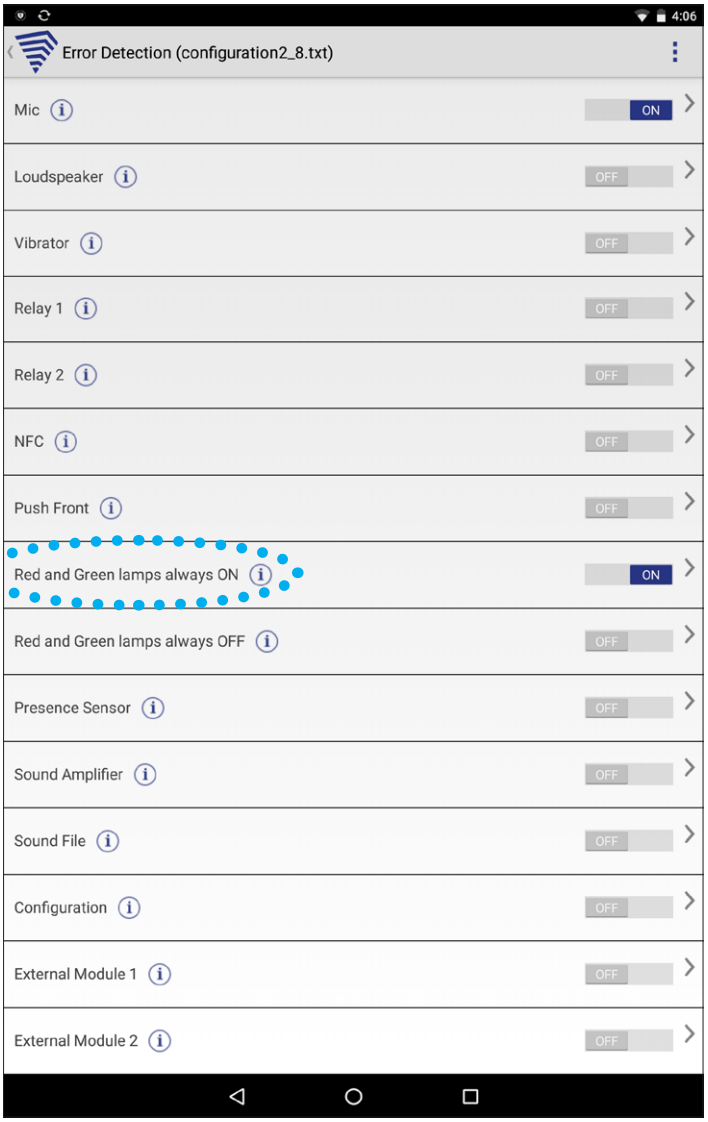
NOTE

Recommended: Minimum 8-wires cable.

ERROR DETECTION

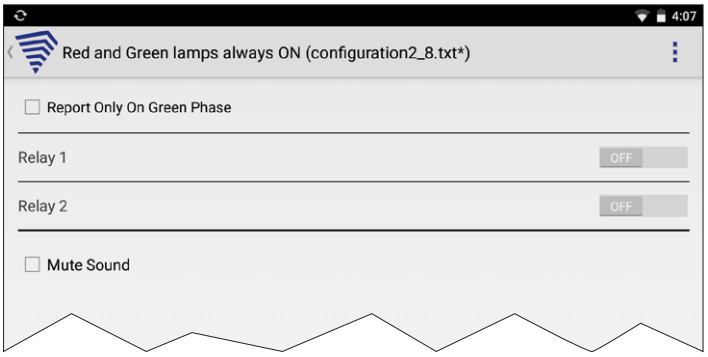
MAIN MENU

Microphone
The microphone is used for the ambient noise control.
If no sound is registered by the microphone when the loudspeaker or vibrator is activated, the microphone is out of order.
Loudspeaker
A test of the loudspeaker is performed every 10 minutes.
Vibrator
A test of the vibrator is performed every 30 minutes.
Watchdog
If Watchdog error detection is enabled, relay 2 will be constantly active.
If Prisma Daps firmware fails, relay 2 is deactivated.
This would be detected by the traffic controller.
Mother Board Supply
24V and 5V supply are monitored.
The valid range for 24V supply is 14.0-25.5V
The valid range for 5V supply is 4.75-5.25V
Relay 1 and Relay 2
In order to detect a relay failure, the relay output must be connected to a wire input.
Relay 1 output shall be connected to wire 2 and Relay 2 to wire 3.
Test is performed when relay is activated during normal operation.
NFC
When NFC communication is initiated, it must succeed within 5 sec, otherwise it is regarded as an internal NFC error.
Push Front
If there is a shortcircui or breakage in the push front sensor or cable, this can be detected and reported as an error.



RED AND GREEN LAMPS ALWAYS ON/OFF

Monitoring of traffic lights
Two error situations are monitored "Red and Green lamps always ON" (cable short circuit) and "Red and Green lamps always OFF" (cable breakage).
Report only on Green Phase
All component errors could be selected to be reported only on Green Phase (once or periodically according to the chosen Report frequency). This enables a certain relay output to be used both for demand signaling (on red phase) and error reporting (on green phase).

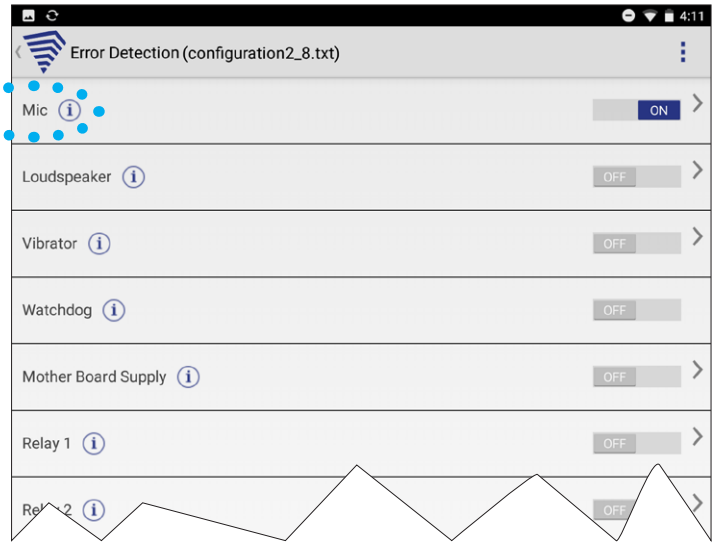


Presence Sensor
If there is a problem in the communication with the presence sensor(s), an error will be activated.
Sound Amplifier
If the sound amplifier chip activates its FAULT signal, an error is activated. The reason could be that the sound volume is too high or that a DC level is detected.
Sound File
If a sound file is referenced to in the configuration and the sound is to be played, an error is activated in the following cases.
The sound file is not exiting on Daps file system or the sampling rate or sampling depth is incorrect, Correct sampling rate is 22050 Hz and sampling depth is 8 or 16 bits.
Configuration
If the configuration would become corrupt this will be detected as a checksum mismatch and an error will be activated.
External Module 1 (Presence detection and bluetooth card)
The external module 1 is connected to Prisma Daps mother board via a serial communication link.
If the external module fails to respond to messages from Prisma Daps, an error is indicated.
External Module 2
The external module 2 is connected to Prisma Daps mother board via a serial communication link.
If the external module fails to respond to messages from Prisma Daps, an error is indicated.

ERROR DETECTION

MENU MIC

When an error is detected, this may be reported to the traffic controller by sending pulses on relay output 1 and/or 2.
It is also possible to indicate an error on the local Prisma Daps unit by activating the red Error LED.



NOTE

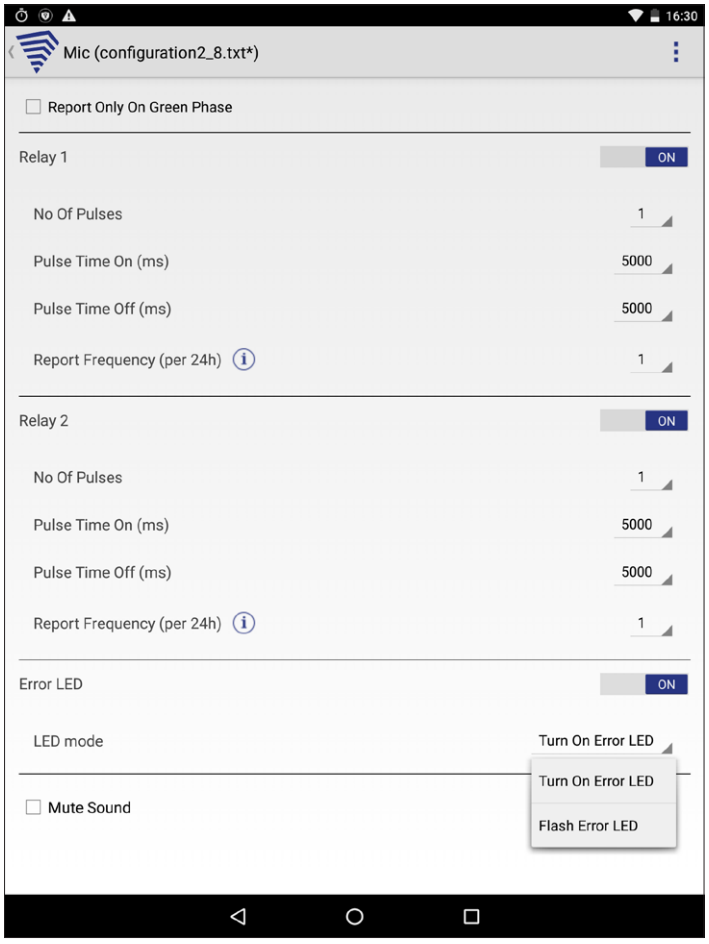
The Watchdog error detection is different from the other components. As long as the Prisma Daps software application is working as expected, relay 2 is active but if a software malfunction is detected relay 2 will go inactive.
This malfunction could then be detected by the traffic controller.

Relay 1/2
When signaling an error by sending pulses on a relay output, the user can setup properties for the pulse train.
These properties are:

- No Of Pulses
  Number of pulses that should be created for the selected error (i.e. Mic).
- Pulse Time On
  The time of the high period of each pulse in milliseconds.
- Pulse Time Off
  The time of the low period of each pulse in milliseconds.
- Report Frequency
  When an error is detected it could be reported periodically with an interval that is set as a number of reports per 24 hours.
  The value 0 means that an error is only reported ones.

Error LED
When an error is detected, this may be indicated by turning the Prisma Daps Error LED on or flashing.

Mute Sound
When an error is detected, the locating sound and vibrator can be turned off.



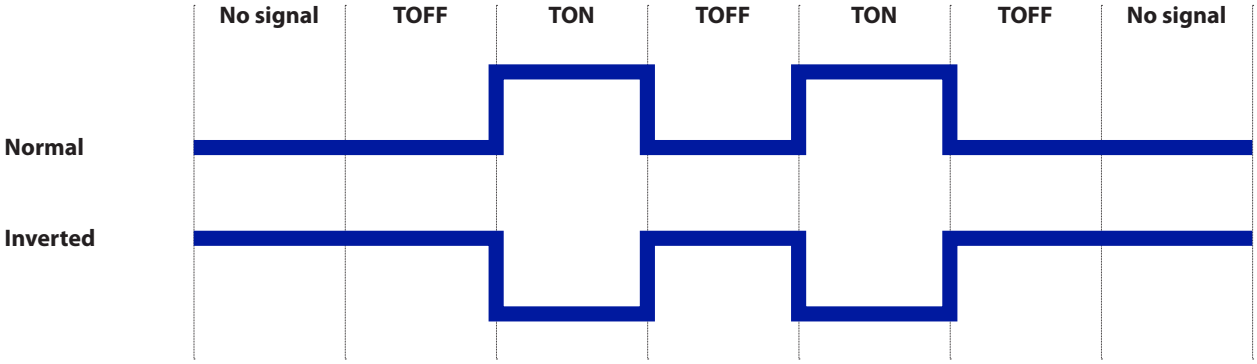
ERROR DETECTION

RELAY SIGNALLING

How errors are signaled on relay outputs
There are several factors that determines the state of relay 1 and 2 outputs.

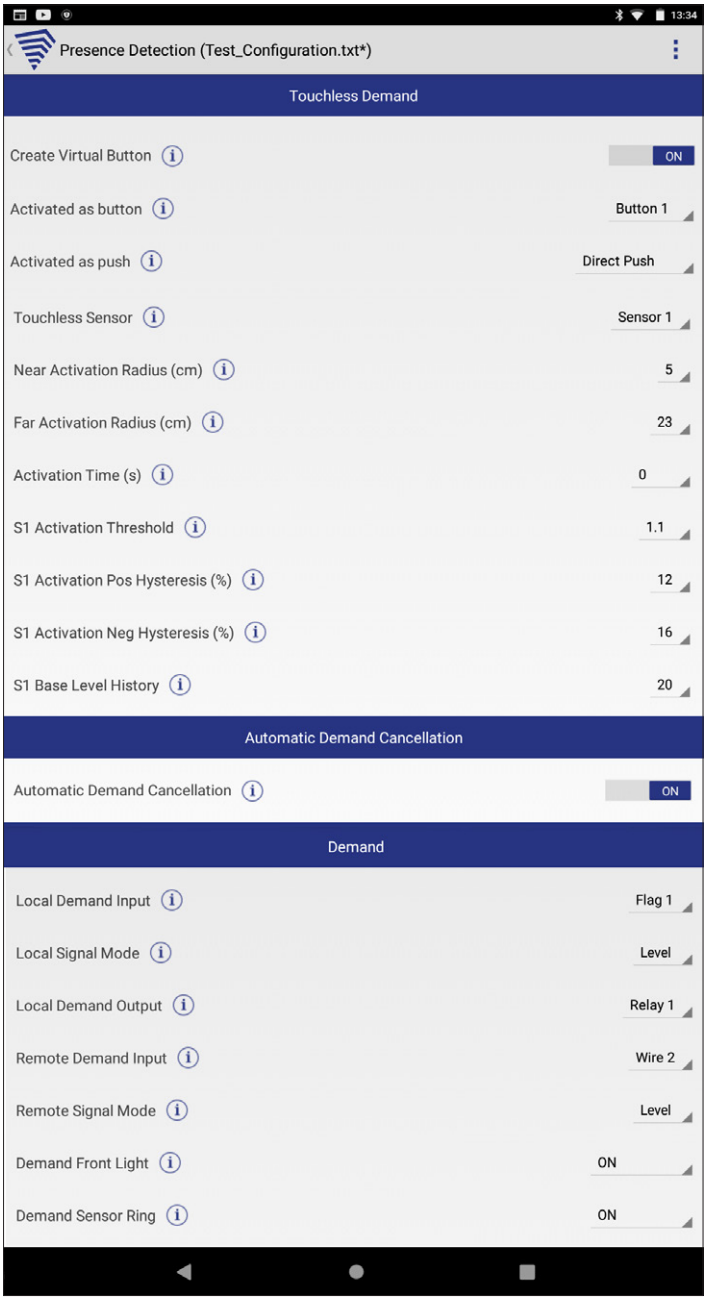
- Direct or inverse logic of relay outputs
- A pulse train will always be started and ended with a TOFF half period.
- If several errors which use the same relay(s) for reporting are present simultaneously, the first error that was detected will be signaled first and the other errors will be queued and reported afterwards.
- If an error should report on both relay 1 and 2, signaling on the relays will start synchronously.
- If Watchdog error detection is selected, relay 2 is constantly on (independent of direct/inversed logic) during normal operation if no error is present.
- As long as an error is present it will be reported with the selected report frequency and the same pulse train will repeatedly be signaled on the relay(s).

PULSE DIAGRAM – EXAMPLE



PRESENCE DETECTION

TOUCHLESS DEMAND



Create Virtual Button
If ON, a button will be activated when putting the hand near to Prisma Daps front.
Activated as button – The number of the button being created.
Activated as push – Direct or Extended Push.
Touchless Sensor – Could be set to 1 or 2. The value 1 refers to a sensor which is directed out from the front. The value 2 refers to a sensor directed out from the left or right side.
Near Activation Radius – The touchless range near limit.
Far Activation Radius. The touchless range far limit.
Activation Time – A virtual button could be created if presence is detected within Near Activation Radius and Far Activation Radius during this time.
S1 Activation Threshold. TBD.
S1 Activation Pos Hysteresis. TBD.
S1 Activation Neg Hysteresis. TBD.
S1 Base Level History. TBD.

Set by PrismaTibro only.

Automatic Demand Cancellation
When this function is active Prisma Daps will monitor if a person is still present after making a demand. If the person is no longer present a notification message could be played and the front light could be set to for example flashing. If presence is detected again the demand will remain. Otherwise a cancellation signal will be sent to other Prisma Daps units in the same group and to the traffic controller.

Local Demand Input
This input is expected to go active when a demand is made on this Prisma Daps unit.
Normally this is Flag 1 or 2 which is activated by the Button associated with the push front and/or the touchless sensor.

Local Signal Mode
Local demand signal mode pulse/level.
This is the mode this Prisma Daps uses for signaling demand to the remote Prisma Daps.
Signal mode Pulse: On local demand, this Daps will typically signal a 1 s pulse on the Local Demand Output.
Signal mode Level: On local demand, the Local Demand Output is set active.

Local Demand Output
This output is used when issuing a demand by this Prisma Daps unit.

Remote Demand Input
This input is used to receive a demand signal from a remote Prisma Daps unit.

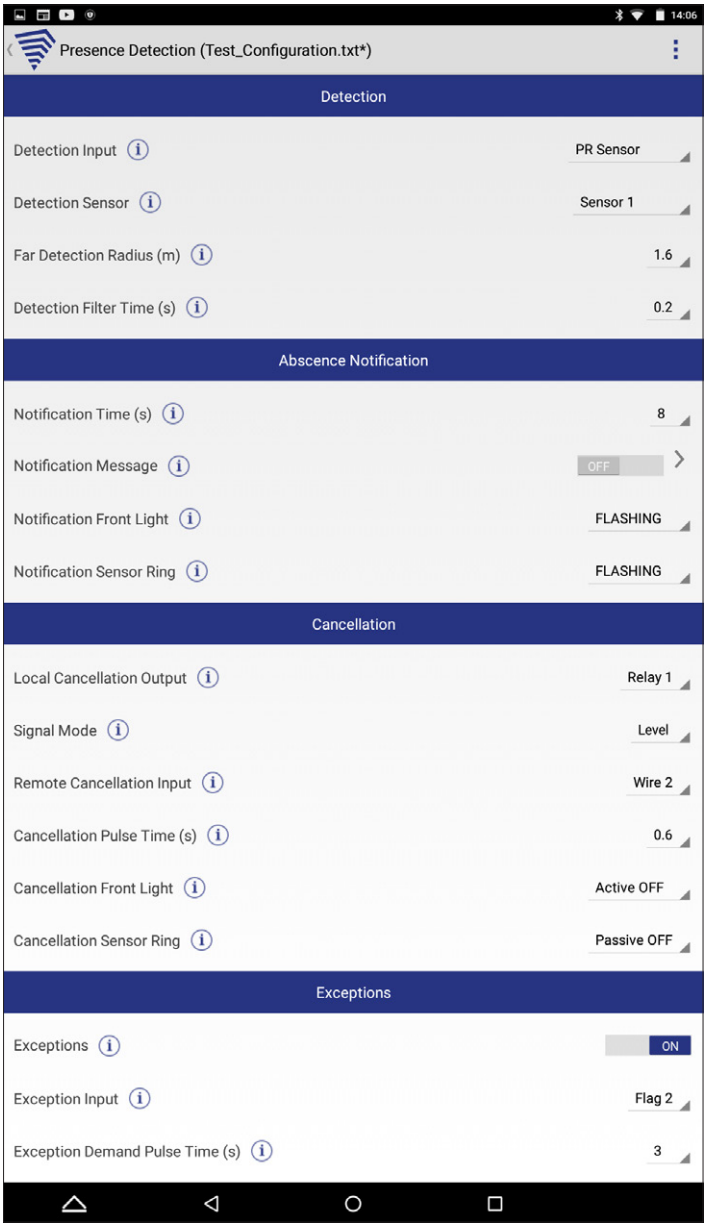
Remote Signal Mode
Remote demand signal mode pulse/level. This is the mode the remote Prisma Daps uses for signaling demand.
Signal mode Pulse: On demand, a pulse of typically 1 s is is received on the Remote Demand Inout.
Signal mode Level: On remote demand, the Remote Demand Input will go active.

Demand Pulse Time
The time of a demand pulse that is used by all Prisma Daps units in the same group.

Demand Front Light
On demand, either locally or remote, front light could set to one of several modes, for example ON.

Demand Sensor Ring
On demand, either locally or remote, light ring could be set to one of several modes, for example ON.

PRESENCE DETECTION



Detection Input
This is the source of the presence/no presence indication.

Detection Sensor
Could be set to 1 or 2. The value 1 refers to a sensor which is directed out from the front. The value 2 refers to a sensor directed out from the left or right side.

Far Detection Radius
This is the outer limit that is monitored for presence.

Detection Filter Time
If no detection is registered during this time period when in a demand state, the person is regarded as absent and the notification period starts.

Notification Time
During this time, notification by voice message and/or front LEDs indication could be made. If the detection zone is not re-entered, the demand will be canceled.

Notification Message
The voice message being played during the notification time.

Notification Front Light
Normally set to FLASHING to indicate that the demand will soon be canceled unless the person re-enters the detection zone.

Notification Sensor Ring
Normally set to FLASHING to indicate that the demand will soon be canceled unless the person re-enters the detection zone.

Local Cancellation Output
The selected output is used when this Prisma Daps unit is signaling cancellation.

Signal Mode
Cancellation signal mode pulse/level. This is the mode this Prisma Daps uses for signaling cancellation of a previously made demand to the remote Prisma Daps.
Signal mode Pulse: On cancellation, this Prisma Daps will typically signal a 0.8 s pulse on the Local Cancellation Output.
Signal mode Level:
On cancellation, the Local Cancellation Output is set inactive.

Remote Cancellation Input
This is the input where a remote cancellation signal will be received.

Cancellation Pulse Time
The time of a cancellation pulse that is used by all Prisma Daps units in the same group.

Cancellation Front Light
When cancelling a demand, the front light could set to one of several modes, for example Active OFF which will turn the light OFF.

Cancellation Sensor Ring
When cancelling a demand, the light ring can be set to one of several modes, for example Active OFF which will turn the light OFF.

Exceptions
When ON, presence will not be monitored if exception input is active during demand.
This could be used to help an impaired person using for example RFID tag or push function in to make a demand.

Exception Input
When this input is active, presence will not be monitored.

Exception Demand Pulse Time
The time of a extended demand pulse that is used by all Prisma Daps units in the same group.

SYSTEM PARAMETERS

SEE AND SET SENSITIVITY

To make settings for internal loudspeaker and microphone, log in at user level "Admin" is required.
All other system parameters could be set as "User".

Prisma Daps 2000 is individually calibrated from factory. Therefore PrismaTibro Sweden do not recommend any changes in these parameters.

The first three parameter settings are internal system parameters and can only be changed from factory.

External system parameters
for external loudspeaker and microphone. You will get information from PrismaTibro Sweden on how to set those parameters when you connect actual device.

Response time
How fast the Prisma Daps increases or decreases the compensating volume. The response time range is between 0.1 and 5.0 seconds, separately set for UP and DOWN response.

Dimming Threshold
If the red and green lamps are dimmed, for example during the night, this can be detected and used as a signal to activate night option functions such as lowering the sound. When the lamp voltage is above/below the dimming threshold a virtual wire could be activated/deactivated.
Full lamp voltage roughly corresponds to dimming level 42 and 190V roughly corresponds to dimming level 32.

Time of activation of button
This is where you choose the difference between direct push and extended push in seconds.
This parameter is transferred and saved during "file transfer" under communication.

Vibrator
This setting defines if the vibrator should be activated on Direct Push or Extended Push.

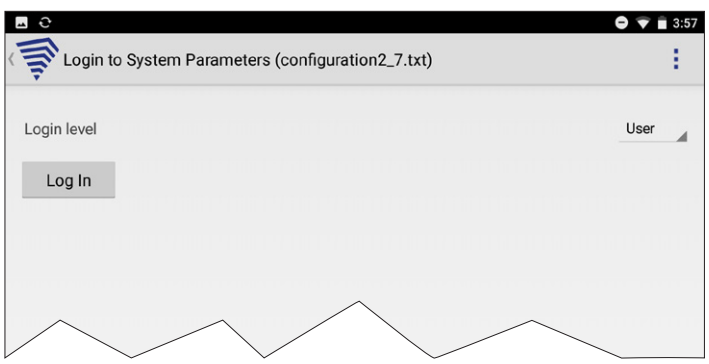
Light Flashing Period
This setting is used if a light idle state is set to FLASHING in Light menu.

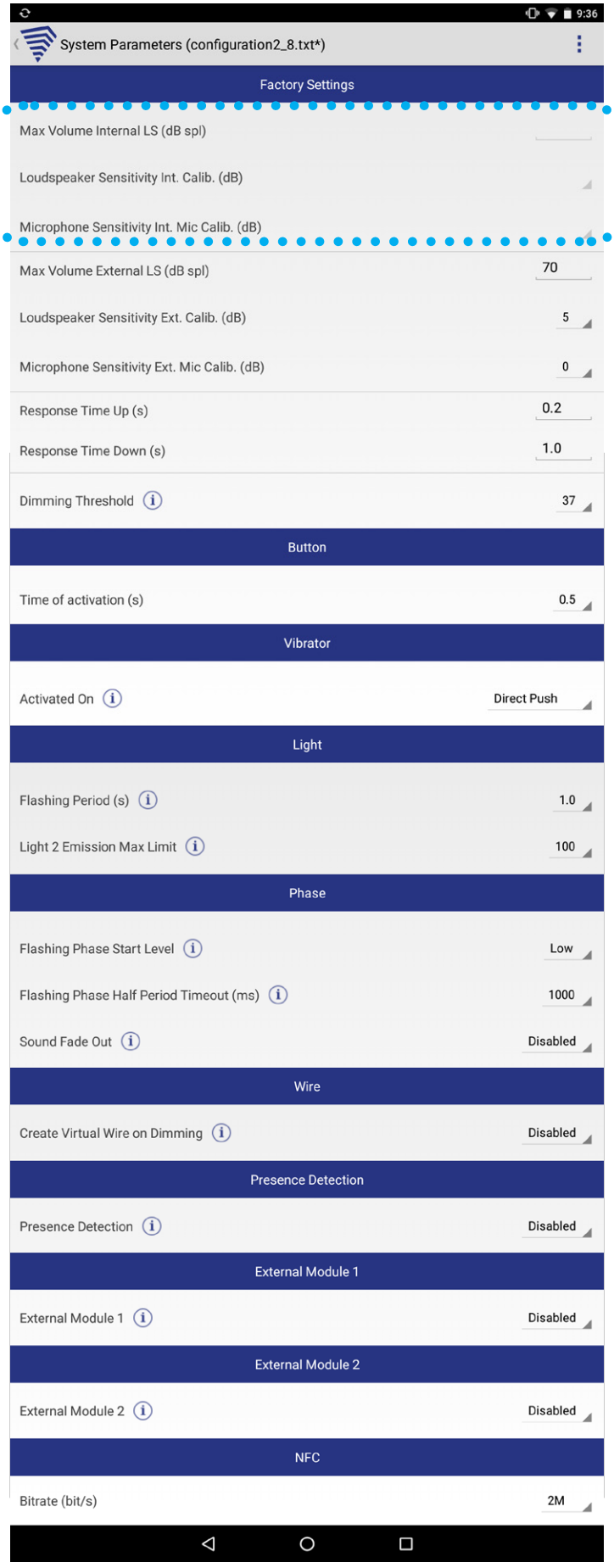
Light 2 Emission Max Limit
This setting limits emission value that could be chosen in Lights menu for Light 2.

Flashing Phase Start Level
This setting defines whether the flashing green/red phases start with the lamp on (high) or lamp off (low).

Flashing Phase Half Period Timeout
This value should be set to at least 100 ms longer than the actual time for a half period.

Sound Fade Out
If this setting is enabled, a Fade Out setting will become visible on the Phases menu. The sound could be decreased gradually to zero at the end of a phase.





How do I know the settings for the actual Prisma Daps 2000 unit?
Get factory settings from Prisma Daps. This is how you get the information preset for internal and external loudspeaker and microphone.
For instructions see page 32.
"Send factory settings to Prisma Daps" has to be used to save your changes in system parameters in actual Prisma Daps 2000 unit.
For instructions see page 32.

SYSTEM PARAMETERS

Create Virtual Wire on Dimming
If enabled, a virtual wire will be activated when the lamp dimming level is avbove the dimming threshold.
The current dimming level is displayed in Com->Show Daps Information->Current Status menu.

Activated as Wire
The virtual wire to be activated when the dimming level is above the dimming threshold.
The current dimming level is displayed in Com->Show Daps Information->Current Status menu.

Presence Detection
When Presence Detection is active two functions are available, Automatic Demand Cancellation and Touchless Demand. If Number of Sensors is set to 0, Touchless Demand could not be used, Automatic Demand Cancellation could still be used if Detection Input is set to any of the digital inputs.
If Sensor Type PR is selected, both Touchless Demand and Automatic Demand Canncellation could be used using sensor measurement.
If Sensor Type ST IR is selected, only Touchless Demand could be used using sensor measurement.

Number of Sensors
The number of sensors that the Prisma Daps unit is equipped with.

Sensor Type
Should be set to PR Sensor Type.

External Module 1/2
External Module 1/2 will be used for Touchless Demand and/or Automatic Demand Cancellation if Module Type is PR and Presence Detection is enabled and Sensor Type is PR Sensor Type.

Serial Comm Bitrate
The communication speed of the link between Prisma Daps mother board and external module 1/2.

Serial Comm Resend Count
Prisma Daps has an internal serial communication link between the main board and external module 1/2.
If there is a communication timeout, this value defines how many times a message will be resent before the message is dropped.

Serial Comm Timeout
This value defines how long to wait for response before re-transmitting.

Serial Comm Error Reset
If this setting is enabled and there is a communication timeout and max re-transmissions are done, the external module resets itself.

NFC Bitrate
This is the communication speed on the link between Prisma Daps mother board and the NFC module.

SOUND

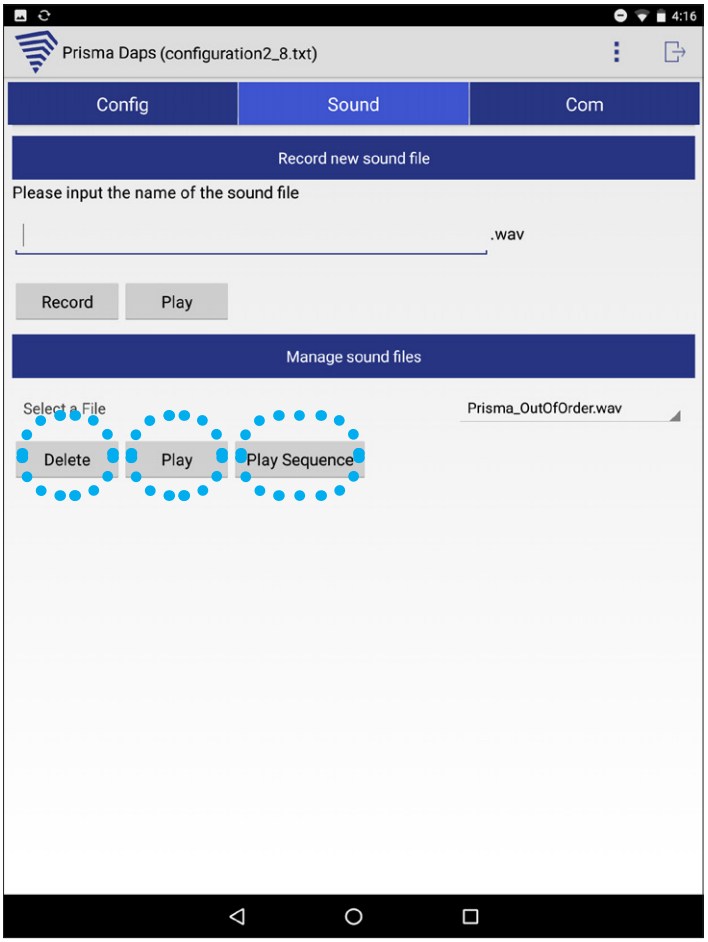
This menu only exists for Prisma Daps 2000•L series

RECORD NEW SOUND FILE

Give your file a name and press "Record".
Record your audio and press "Stop" when you are done.
You will receive a message telling you that the file has been successfully saved.
The sound file is now saved in the prisma/audio folder.
Press "Play" to listen to your new sound file."
When pressing the "Play Sequence" button, the sound is repeated with an interval of 1 second.
When pressed, the button the text is chages to "Stop".

UPLOAD EXISTING SOUND FILES

The requirement for a sound is 16bit, 22kHz, mono.
In file manager you place your sound file in the folder "Audio".
In the Application you find the uploaded file in your sound library.

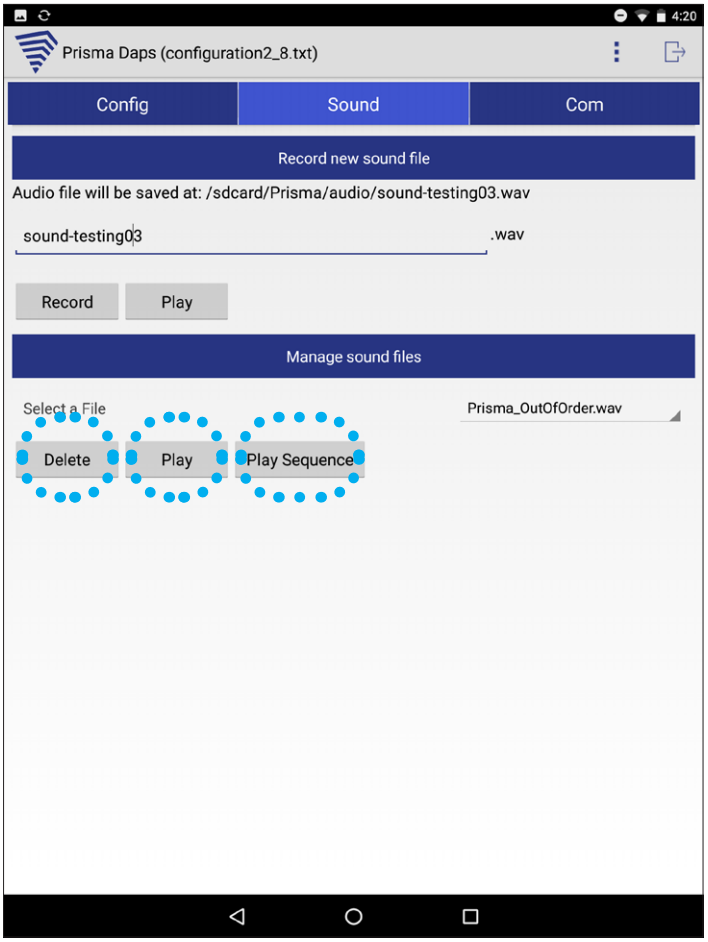


MANAGE SOUND FILES

Here you can listen to and delete sounds in the sound library.

NOTE

If you have recorded or uploaded a sound file this file has to be separately sent to all Prisma Daps.
The sound file is NOT included in the configuration file.



TRANSFERRING VIA USB, NFC OR BLUETOOTH

When you are finished with all settings, it's time to transfer them to Prisma Daps 2000•L or Prisma Daps 2000•M.
This can be done via USB memory (Prisma Daps 2000•M/L) or wirelessly using NFC or Bluetooth (Prisma Daps 2000•L).
The USB memory is an optional extra provided by PrismaTibro. A backup of existing customer files in the Prisma Daps can be made by choosing both Send and Receive in the Export to USB menu.

USB COMMUNICATION

1. Finish your configuration file and save it.

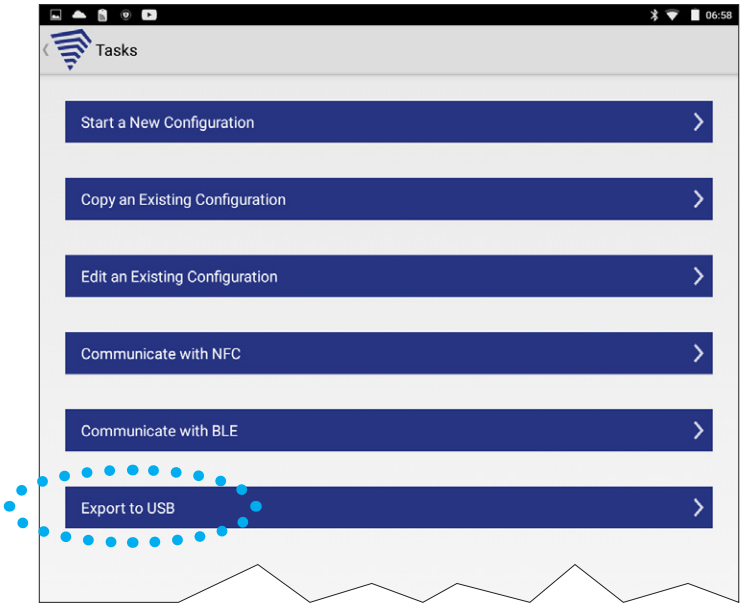
2. Connect the USB memory in to your Android device.

3. In the "Export to USB" menu, select Application file "firmware" or/and Audio file or/and Configuration file. Then choose "Next".

4. Enter your 4-digit pin code and choose Export to USB.

5. When the transfer is done you will receive a message: "Finish exporting. You may now remove the USB-memory".

6. On the USB memory, a folder structure containing the file(s) to send to the Prisma Daps unit is created as well as a receive folder to which certain existing Prisma Daps files will be copied.
   /Prisma/send/app/
   If you selected an application file to export, this folder will contain a firmware binary file for example Daps2Fw-2.9.0.0.bin.
   If not, this folder is not created.
   /Prisma/send/audio/
   If you selected an audio file to export, this folder will contain an audio file for example my_sound.wav.
   If not, this folder is not created.
   /Prisma/send/config
   If you selected a configuration file to export, this folder will contain a configuration file for example my_configuration.txt.
   If not, this folder is not created.
   /Prisma/receive/
   This folder is created if Receive is selected in the USB export menu. It will contain a backup of configuration file, customer sound files and error log.
   /Prisma/DAPS2000.code
   This file contains the Prisma Daps pin code and it will be verified to be correct before any transfer to or from the Prisma Daps could be performed.



7. Remove the top cover on the Prisma Daps unit.
   Slide out the pushfront and LED protection lens to locate the the USB port.
   Insert the USB memory.

8. The LEDs will flash at least twice - and the transfer is complete.

9. An exception is when you are transferring firmware or sound files. Then the LEDs will flash until the transfer is complete.
   If the PIN code is incorrect the front LEDs will be off but the error LED will be on for 1 s.
   If writing to the USB memory receive folder fails, the error LED will flash two times.
   It might be because of an incompatible or defective memory key. Try another memory key or choose "Only Send".

10. Do not unplug the USB memory until the flashing has stopped.

11. If your Prisma Daps has a firmware version older than 2.9, the red Error front LED might lit up when you insert the USB memory. The reason is that the configuration file that you have exported to the USB memory has parameters that is not recognized by the old firmware currently installed in the Prisma Daps.
    If your USB memory contains the new 2.9 firmware, the solution is to first unplug the USB memory and then insert the USB memory again.
    If you have not exported the new 2.9 firmware to the USB memory, please do that first and try again.

NOTE

One short flash from the LEDs = Sending error
It is supposed to flash at least twice.
Large files can have an advantage to be transferred via USB memory. Especially in surroundings with a lot of radio interference.

TRANSFERRING VIA USB, NFC OR BLUETOOTH

NFC COMMUNICATION

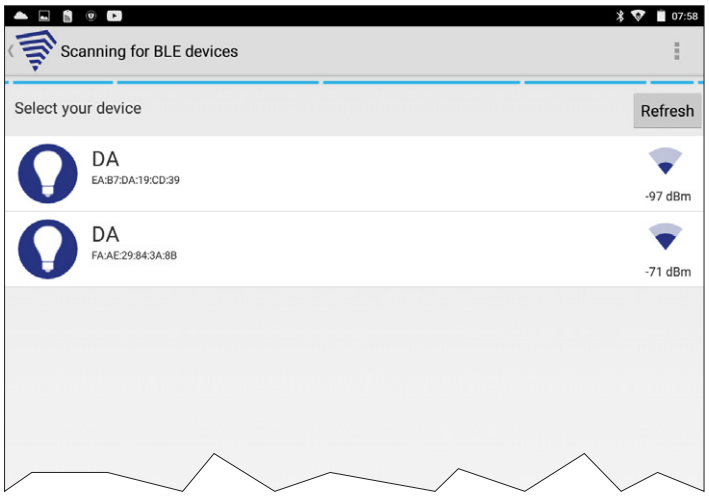
1. Enter your 4-digit pin code.
2. Place the Android device on the Prisma Daps units top cover to log in.
   You have to connect the NFC antenna from the android with the NFC antenna in the top cover. It can take some time to find where the antenna on your android is placed.
3. When there is a connection the screen will change and you have to follow the advice "Touch to beam" to continue.
4. You will be led to a menu with three choices.
   - File transfer, page 31
   - Factory settings, page 32
   - Show Prisma Daps information, page 33

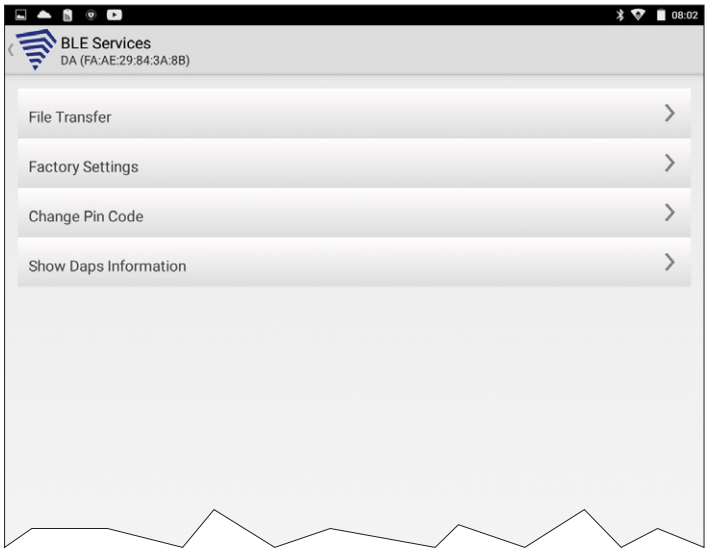
NOTE

Depending on your Android device it can be necessary to find the exact spot where the NFC-antenna is placed to create the best connection to Prisma Daps. Large files can have an advantage to be transferred via USB memory. Especially in surroundings with a lot of radio interference.

BLUETOOTH COMMUNICATION (BLE)

1. Enter your 4-digit PIN code and press Log In
2. Then you get a list of online Prisma Daps 2000•L nearby.
   The nearest will have best signal strength (lowest number).
3. Select the Prisma Daps 2000•L on the list you want to access.
4. Light ring on the selected Prisma Daps 2000•L will flash 5 times.
5. You will be led to a menu with four choices:
   File transfer, page 31
   Factory settings, page 32
   Change Pin Code (PrismaTibro staff only)
   Show Prisma Daps Information, page 33





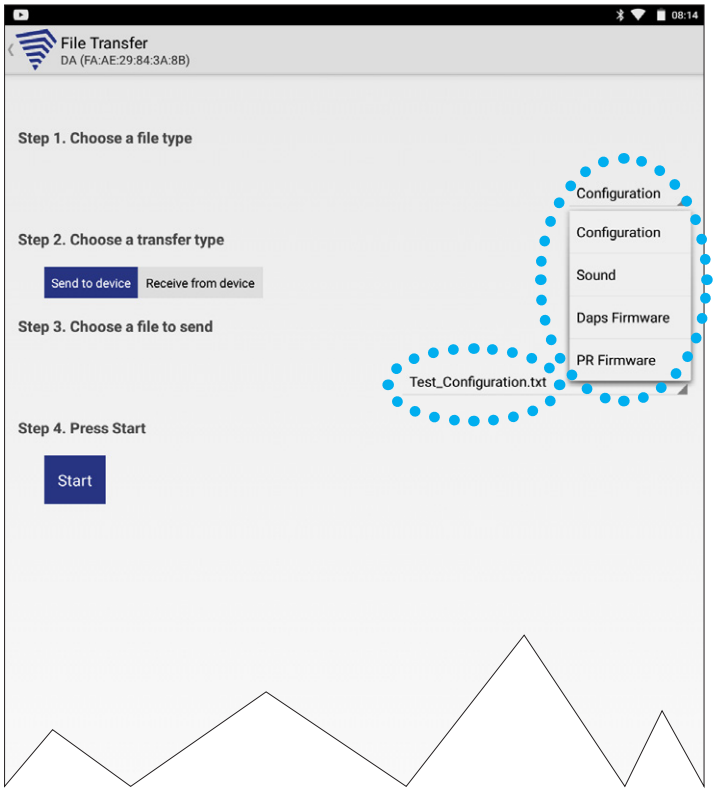
COMMUNICATION

FILE TRANSFER NFC/BLUETOOTH

1. Choose a file type; Configuration, Sound, Firmware or PR Firmware (bluetooth only)
2. Choose a transfer type
   - Receive from Prisma Daps to your android
   - Send from Android to Prisma Daps
3. Choose a file to upload

4a. NFC.
Place the Android device on Prisma Daps units top cover and "Touch to beam".
When the transfer is done you receive a message:
"The file has been uploaded".

4b. Bluetooth.
Press Start to transfer the file.
A progress bar will show transfering status.

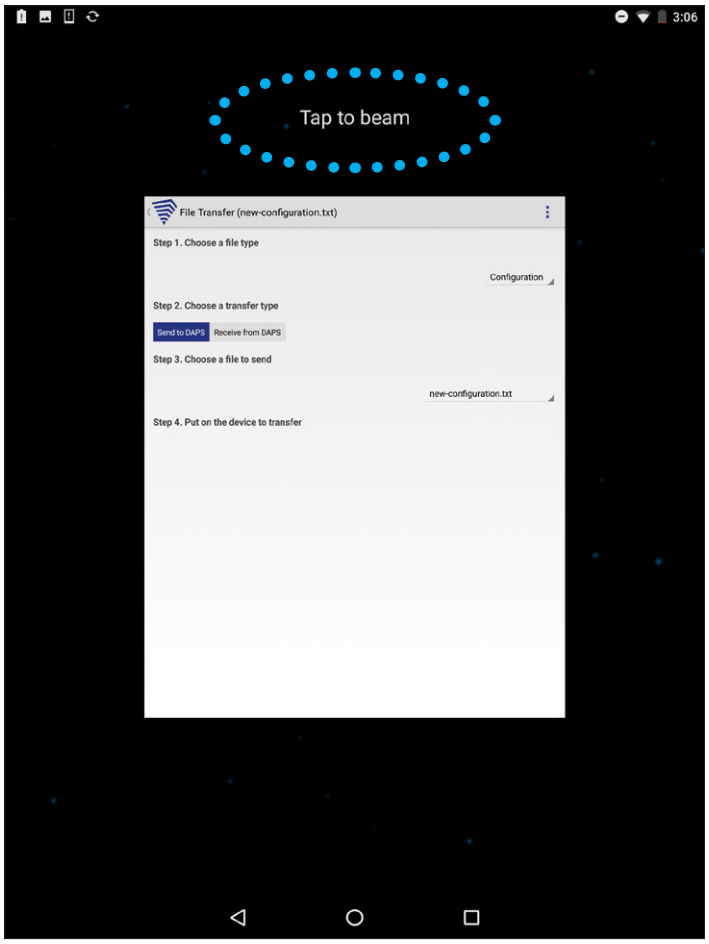


NOTE

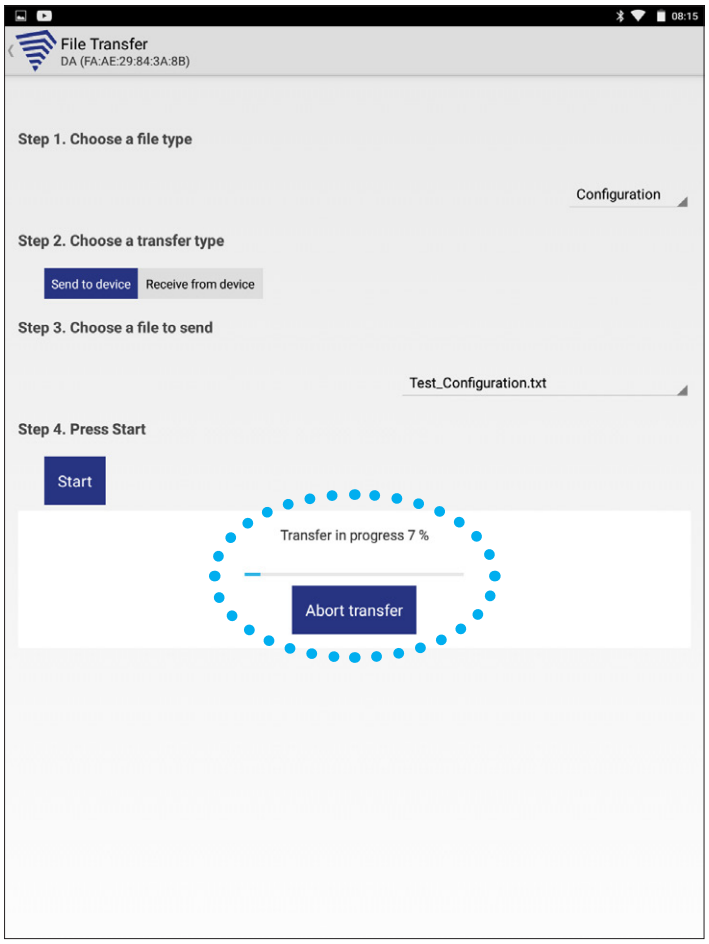
Firmware updates are only done in rare instances and always with guidance of Technical support from PrismaTibro..

Incorrect firmware can put Prisma Daps out of order.

NFC



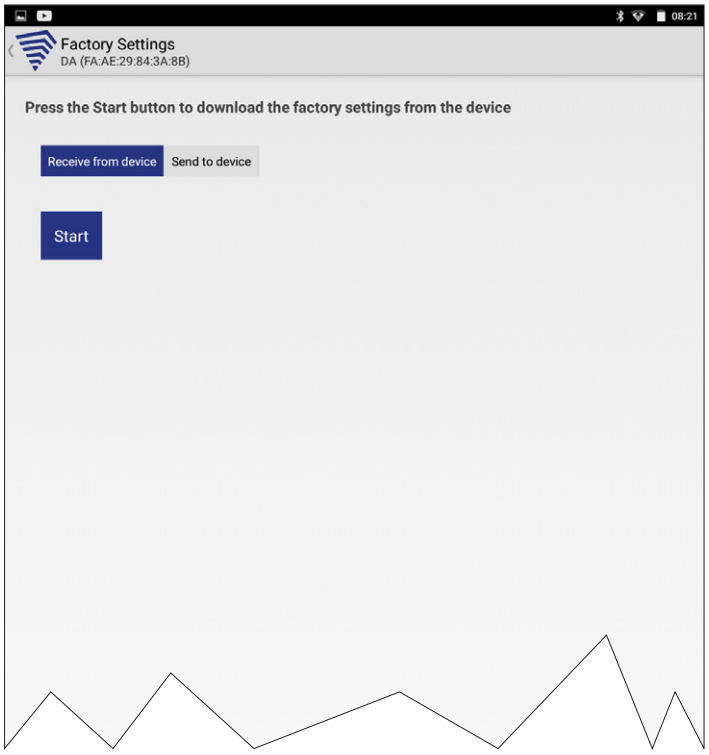
BLUETOOTH



FACTORY SETTINGS

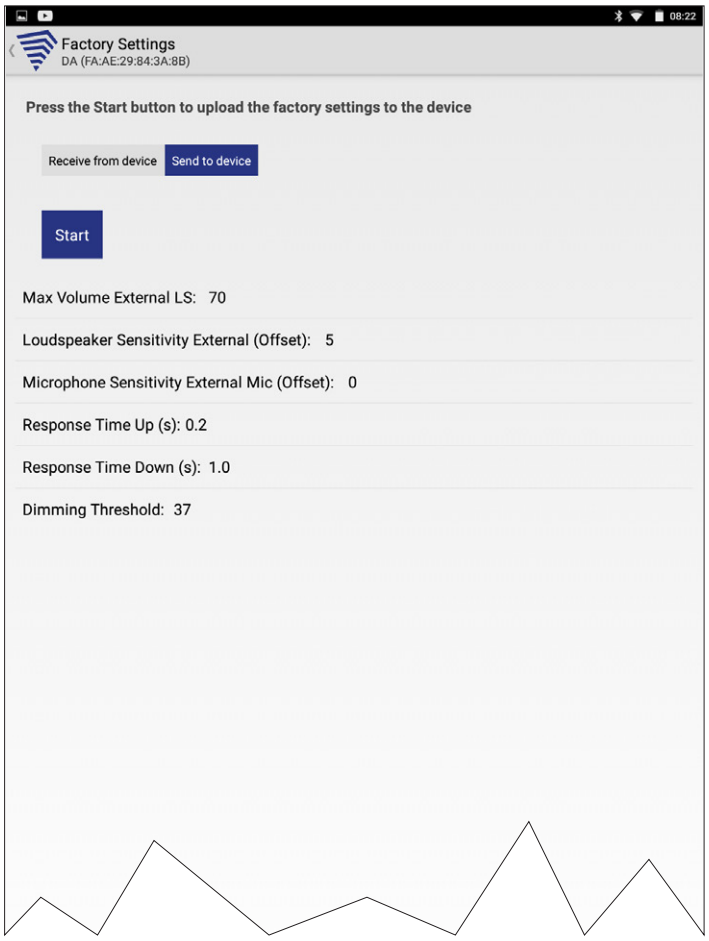
This is where you receive actual settings, system parameters, and where you send settings to a Prisma Daps unit.

Prisma Daps 2000 are individually calibrated from factory. Therefore PrismaTibro do not recommend any changes in system parameters/factory settings.



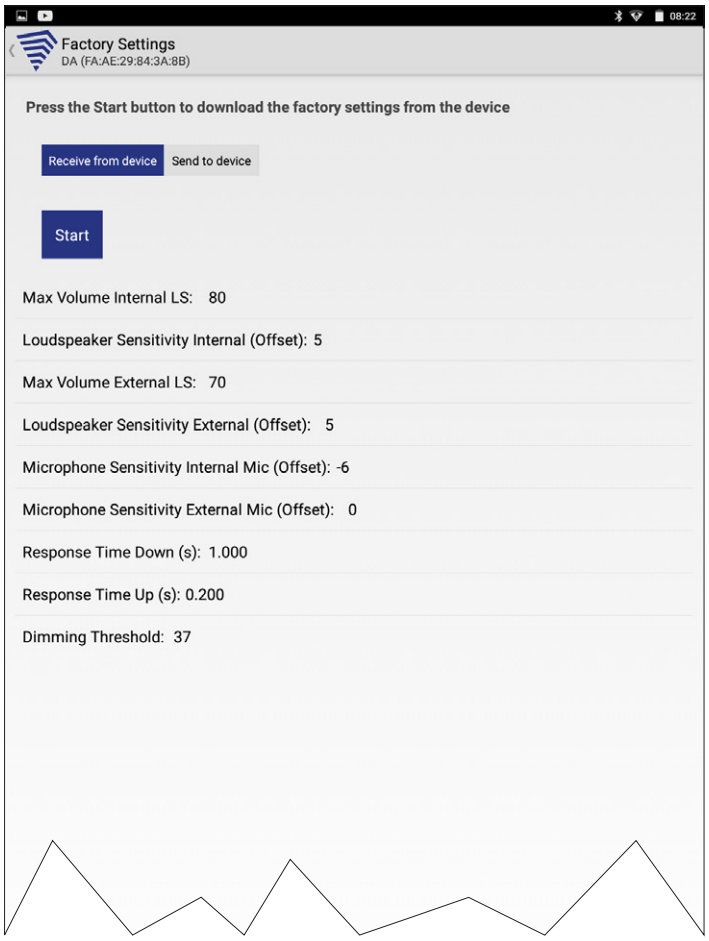
SEND FACTORY SETTINGS

NFC
Select "Send factory settings to Prisma Daps" and put your Android device onto the Prisma Daps.
Bluetooth
Select "Send to device" and press Start.
Settings for internal speaker and microphone are only changeble in the factory and will not be send to the Prisma Daps.



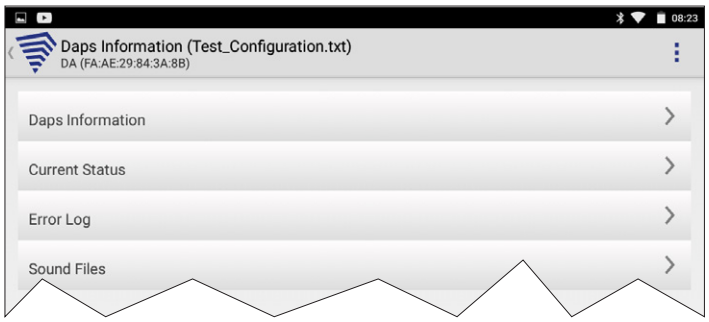
RECEIVE FACTORY SETTINGS

NFC
Select "Receive factory settings from Prisma Daps" and put your Android device onto the Prisma Daps.
Bluetooth
Select "Receive from deivce" and press Start.



PRISMA DAPS INFORMATION

This is where you get information about actual Prisma Daps unit.

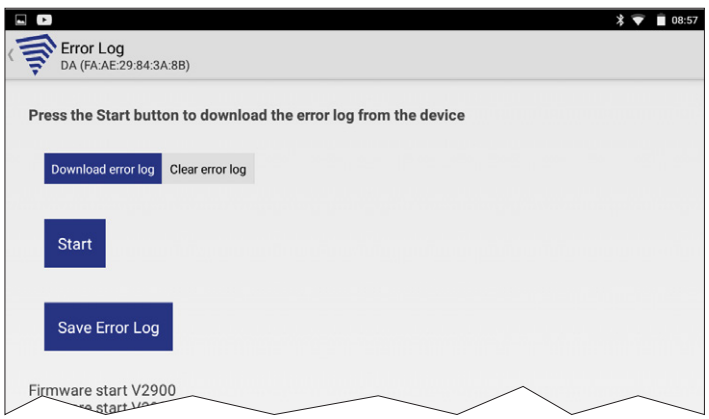


Prisma Daps Information

- Shows configuration file, Prisma Daps firmware and external module firmware (Detect, Bluetooth) currently installed.
  Bluetooth: Information will automatically show up.
  NFC: Place the Android unit onto the Prisma Daps to get the information.

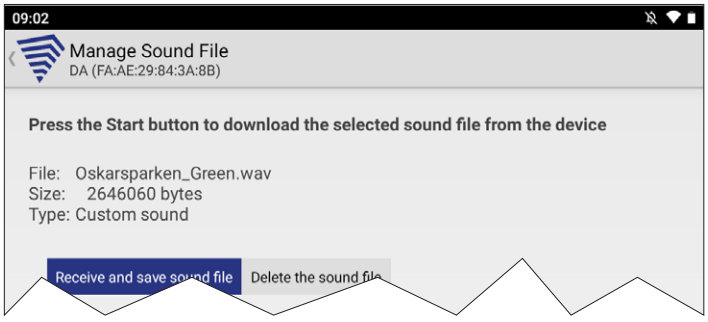
Error Log

- Here you can see and eventuelly download/clear the log file of the Prisma Daps.
  Bluetooth: Press Start to watch logfile.
  NFC: Place the Android device onto the Prisma Daps to get the information.



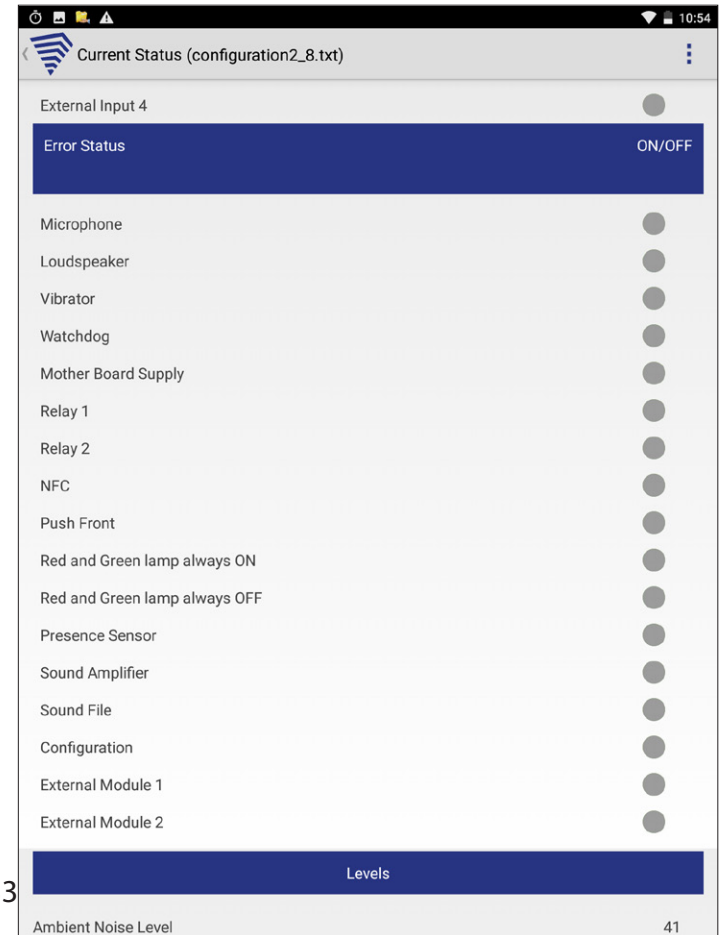
Sound Files

- Here you can see a list of sound files installed.
  Bluetooth: Press "Receive sound file list" to get file list.
  NFC: Place the Android device onto the Prisma Daps file list.
  All soundfiles can be downloaded separately to the Android device.
  Customer specific sound files can be deleted in the Prisma Daps but built-in factory sounds cannot.



Current Status

- Here you can se live data from the Prisma Daps.
  This includes input/output levels, noise/voltage measurements and error status from error detection components.
  Bluetooth: Information will automatically show up.
  NFC: Place the Android device onto the Prisma Daps to get the information.



THEREFORE PRISMATIBRO

QUALITY & SERVICE

Aluminum housing, top and bottomlids in polyamide, a front with no moving parts.
Prisma Daps Pedestrian Signals are vandal proof.
A monitoring system continuously measures the currents of green and red phases – walk or don't walk – in order to guarantee the safety of the pedestrian.
Our pedestrian signals will never sound green during red phase.

WARRANTY 5 YEARS

Buying products from PrismaTibro is a safe investment. They will work day in and day out, year after year.

GLOBAL AND LOCAL

Our pedestrian signals can be linked up to almost any traffic control system. They are equipped with different software settings depending on the local requirements.

30 YEARS OF EXPERIENCE

PrismaTibro has nearly three decades of experience in developing and manufacturing unique, high quality products with advanced and reliable technology.
Part of Addtech-group since July 2018.
Certified for ISO 9001 and ISO 14001 to ensure high quality products, services and customer support.
Our four product areas are pedestrian signals, deflection indicators, push buttons and led street lights.
CSR, corporate social responsibility: As a company, we want to reach out and help the people in Sweden and around the world with the love of God.
We support different projects that helps children by building new schools, providing clean water and diverting them from a life in crime. There is so much we can do to help, and we are committed to contribute as much as we can.

PRISMATIBRO

ADDRESS Jarnvagsgatan 19, SE-543 50 Tibro
SWITCHBOARD +46 504 400 40
WEB prismatibro.se
E-MAIL contact@prismatibro.se

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