



ADAPTALARM BUS FREE

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User guide

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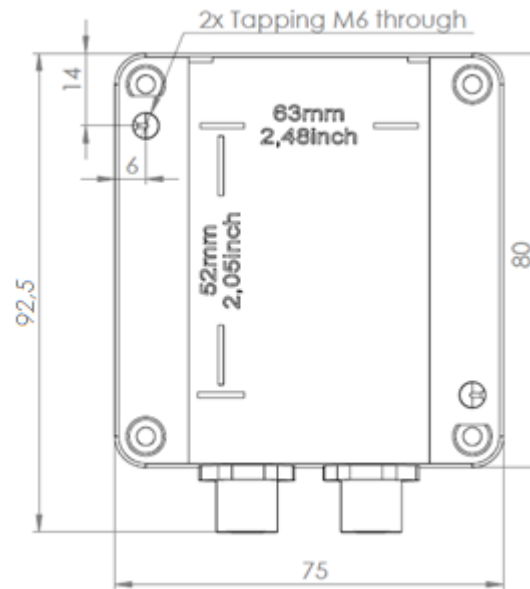
Contents

Contents	2
1 Characteristics.....	3
1.1 Dimensions.....	3
1.2 Operating characteristics	4
2 Installing the device.....	4
2.1 Fitting the adaptalarm	4
2.2 Wiring up the adaptalarm	5
3 Sytem operation.....	5
3.1 Sound activation inputs.....	6
3.1.1 Sons classiques (entrées TOR)	6
3.1.2 Adaptable sounds (analogic inputs)	6
3.2 Priority principle	6
3.3 Day/Night mode	7
3.4 Launching the Adaptalarm software.....	7
4 The Adaptalarm Software	8
4.1 Classic and Adaptable sounds.....	8
4.2 Setting area	9
4.3 Adding a sound	9
4.4 Sound Configuration	9
4.5 Saving a sound configuration	10

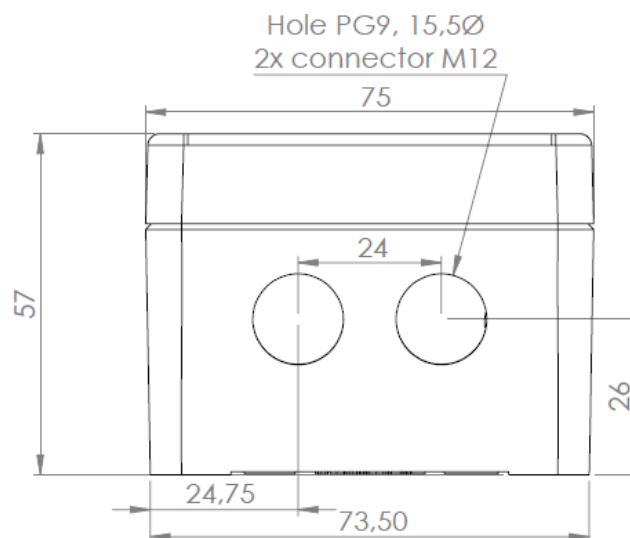
1 Characteristics

1.1 Dimensions

Bottom view



Front view



1.2 Operating characteristics

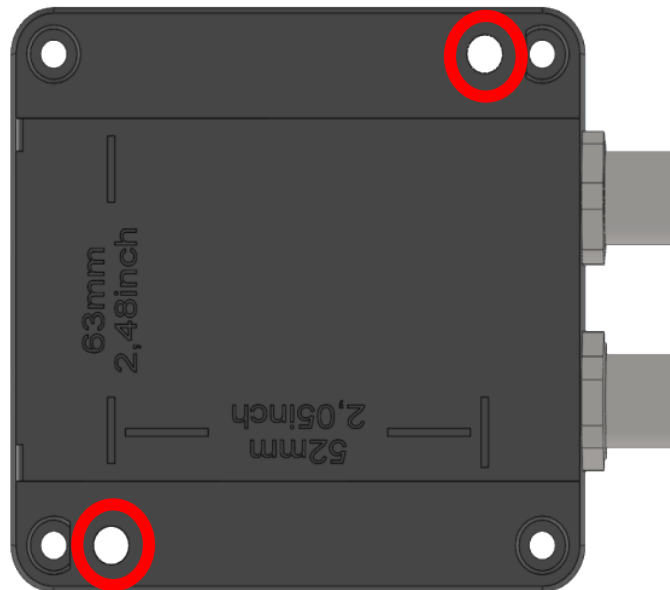
Supply voltage	9 à 32VDC
Nominal current	≈100mA
Voltage for digital input activation	5V
Voltage range for analogic input activation	0,5 à 4,5V
Voltage range for analogic input deactivation	≤ 0,4V
Voltage for Day/Night input activation	5V
Maximum operating current for low-side output	500mA
Operating temperature	-40 à 85°C
Maximum sound power	95dB
Audio formats supported	.WAV (jusqu'à 48kHz), 16bits, Mono
Minimum sound duration	500ms
Maximum sound duration	Limited by the size of the memory (4GB)

2 Installing the device

In this chapter, we will be looking at how to fit your Adaptalarm to your system and how to wire it up.

2.1 Fitting the adaptalarm

Adaptalarm can be rear-fitted using 2 holes with M6 threads;



The distance between the two tapped holes is indicated on the housing (63mm and 52mm).

WARNING : The recommended tightening torque for the cover screws is 1.1 Nm.

2.2 Wiring up the adaptalarm

Adaptalarm bus free is equipped with two M12 8 pins connectors (waterproof once wired or protected by plastic cap included).



Pins are allocated as follows :

M12 gauche	M12 droit
1 – Vcc	1 – DIG 1
2 – GND	2 – DIG 2
3 – D/N	3 – DIG 3
4 – DIG 9	4 – DIG 4
5 – ANA1	5 – DIG 5
6 – ANA2	6 – DIG 6
7 – ANA3	7 – DIG 7
8 – ANA4	8 – DIG 8

Cables and accessories are also distributed by EFA France.

3 Sytem operation

Adaptalarm Bus free includes 9 digital inputs and 4 analogic inputs, allowing to manage sounds in different ways.

3.1 Sound activation inputs

There are different sound playing modes, activatable according to the input. There are two types of sound inputs : « classic sounds » and « adaptable sounds ».

Warning : Classic and adaptable sounds are inevitably operating with priority principle (see §3.3).

3.1.1 Sons classiques (entrées TOR)

A classic sound is activated by a 5V voltage on the corresponding digital input. Once activated, the classic sound is playing in loop until the digital input is deactivated.

Classic sounds are controllable on pin 4 of the hand-left M12 connector, and all the pins of the hand-right one.

3.1.2 Adaptable sounds (analogic inputs)

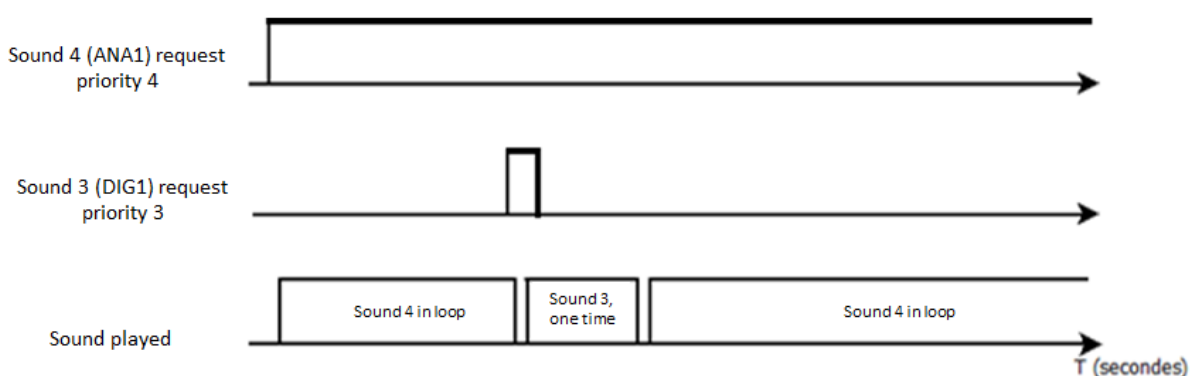
An adaptable sound is activated by a <0,5V voltage on the corresponding analogic input. Once activated, the adaptable sound is playing with an input voltage proportional volume (maximum reached at 4,5V). To stop the playback, the input voltage must be 0,5V or less.

Adaptable sounds are controllable on pins 5, 6, 7 and 8 of the M12 8 pins connector.

3.2 Priority principle

The purpose is to interrupt sounds while they are being read when another sound with a higher priority level needs to be played. When the sound with the higher priority is disabled, the other sound is re-enabled if it is still active.

Example: a sound simulating the noise of a vehicle operating (sound 4 on ANA 1 input) is in the process of being read and another sound is enabled (sound 3 on DIG 1 input) with a higher priority to warn of a hazard. The sound simulating the noise a vehicle makes is therefore interrupted by the sound with the higher priority which is then enabled. Once the sound warning of the hazard has finished playing, the sound simulating the noise a vehicle makes is re-enabled.



The software interface is used to choose the priority values.

3.3 Day/Night mode

Night mode reduces the sound power of the played sounds by 25%.

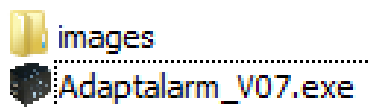
Night mode can be activated by a 5V input voltage on pin 3 of the hand-left M12 8 pins connector. Otherwise, day mode is on (no sound power reduction).

3.4 Launching the Adaptalarm software

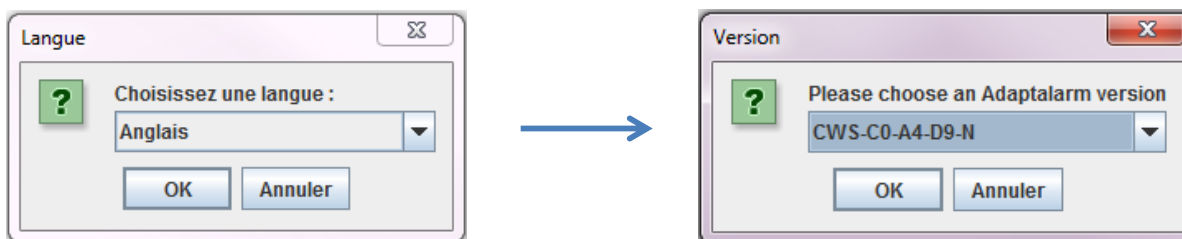
It is possible to add your own sounds. To do this, the Adaptalarm includes a software which allows to integrate and to parameterize the priority of each new sound. The software also allows configuration of the CAN bus.

To access the software, follow these steps:

1. Make sure that the Adaptalarm is not powered;
2. Remove the Adaptalarm cover;
3. Push the micro-SD card out of the connector;
4. Connect the micro-SD card to a computer (use a USB-micro-SD adapter if necessary);
5. Browse the micro-SD card from your computer and double-click the "Adaptalarm" folder;
6. Double-click the "Adaptalarm_VXX.exe" file (XX is the version of the software).

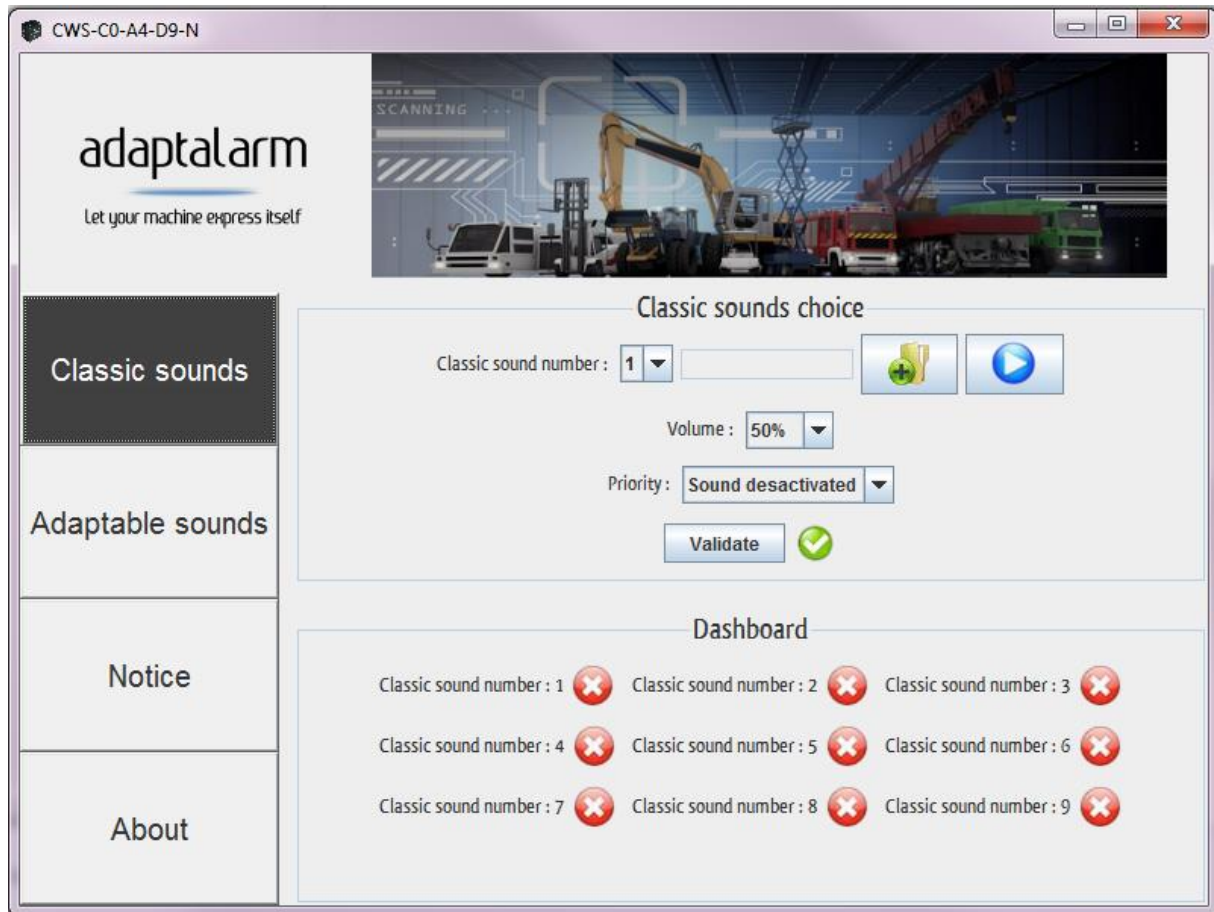


After double-clicking on the file, a window asks you to choose the language of the software, once the language is chosen, another window appears to choose the version of the Adaptalarm, choose "CWS-C0-A4-D9-N".



4 The Adaptalarm Software

Once opening « Adaptalarm.exe » file and after selecting the language and version of Adaptalarm, the following window should appear (if not, the software may propose you to update the JAVA environment. A link to the Internet will allow you to then perform this update) :



The software consists of four navigation tabs on the left and a settings area in the center.

- « Classic sounds » to configure classic sounds on digital inputs ;
- « Adaptable sounds » to configure adaptable sounds on analogic inputs ;

The other navigation buttons allow to display this same user guide ("Notice") as well as additional information ("About").

4.1 Classic and Adaptable sounds

The « classic sounds » and « adaptable sounds » settings areas are working the same way.

In « classic sounds », sound number 1 will be controlled by DIG 1 input and sound number 2 will be controlled by DIG 2.

In « adaptable sounds », sound number 1 will be controlled by ANA 1 and sound number 2 to 4 will be controlled respectively by ANA 2 to 4.

The setting area allows you to assign a new sound file to each of the digital and analogic inputs. You can also set the volume and priority of each sound independently.

4.2 Setting area

The displayed values for volume and Priority are the current values for the selected sounds number.

If a sound file is already assigned, « SONX » where X is the sound priority. You can play it by clicking on the blue playback icon.

If you change the configuration of an existing sound, the indicator nearby “Validate” button will come to a red cross to show you that displayed parameters are different from saved configuration.

The dashboard indicates if each sound have been configured and saved in the memory.

4.3 Adding a sound

You can choose to embed a new sound (in .WAV format), or replace the existing sound by clicking the browser icon. You can also configure the volume and priority of the selected sound.

4.4 Sound Configuration

Volume level can be set from 10% to 100% of its maximal sound power.

The priority (each sound should have a different one) can be set from 1 (higher priority) to 254 (lower priority). You can also deactivate the corresponding input by selecting « sound deactivated » in priority field. A window will then ask you if you also want to delete the assigned sound from memory or not.

Volume : 100% ▼
 Priority: 1 ▼

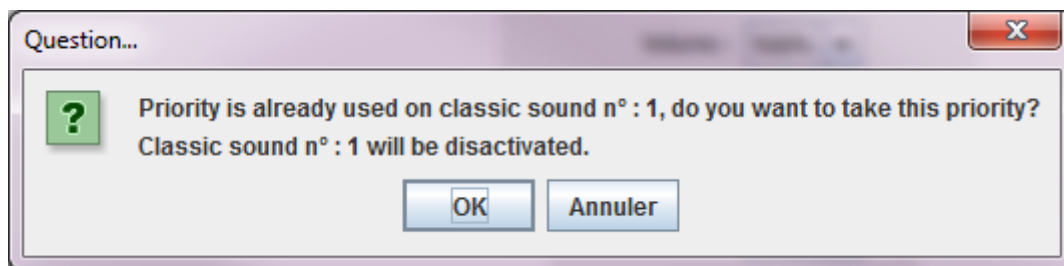
Volume : 100% ▼
 Priorité : 1 ▼

4.5 Saving a sound configuration

Once the sound is selected and adjusted, you can confirm/save the selected sound by clicking on "Validate".

The sound and its configuration will then be saved and the validation indicator will turn green in the dashboard. The saved sound and configuration will be imported into the memory.

A message may occur after validation if the priority of the sound is already taken by another sound.



You can then validate with "OK", the sound then takes precedence of the other sound and it will be deleted, either click on "Cancel" and nothing will be modified.

Tips & Tricks : This method can be used to delete a sound that you are no longer using.