

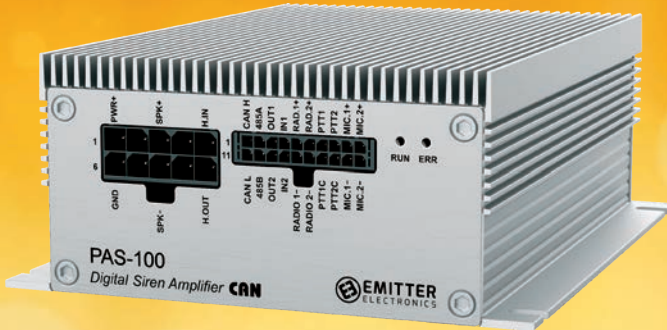


**EMITTER**  
ELECTRONICS  
innovative · reliable · flexible



# PAS-100 / PAS-200

## DIGITAL SIREN AMPLIFIER



Speakers and the handheld unit available as separate devices

### Features and Benefits

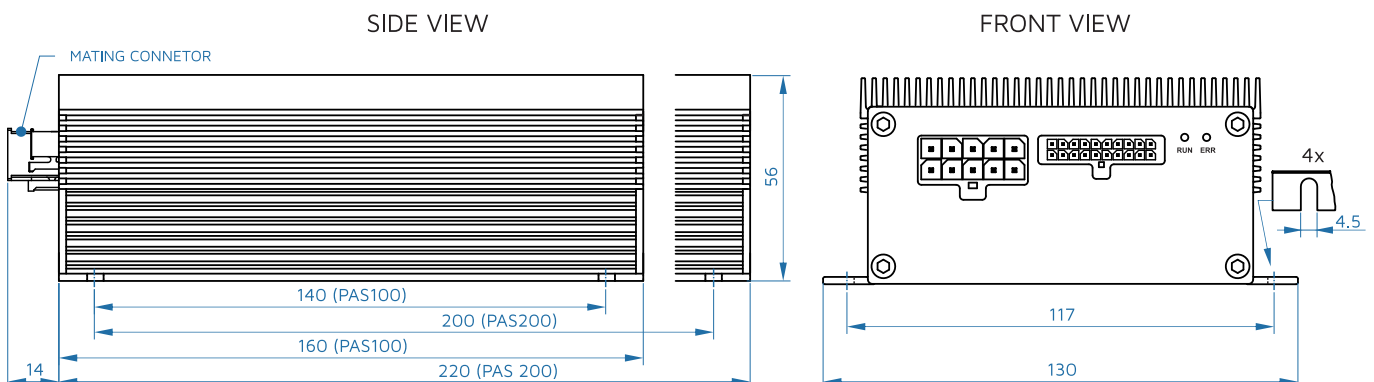
- 1 Power Amplifier with PA system
- 2 True RMS 100 W or 200 W (2x100 W)
- 3 Multi-voltage 8-32 VDC
- 4 Record'n'Play Function, optionally
- 5 Horn Ring Cycler
- 6 Full CAN Bus Control

The PA electronic Siren Amplifier **PAS-100/200** is designed to be used in Emergency vehicles such as ambulance, firefighting, police or other law enforcement vehicles. The amplifier is available in 100 W and also in 200 W version with two independent channels of 2x 100 W True RMS. It can provide a wide range of pre-programmed siren sounds that can be set according to the different country regulations and market needs. Incorporates radio broadcast - two radio inputs and PTT handheld unit with a public access (PA) override function - two mic. inputs.

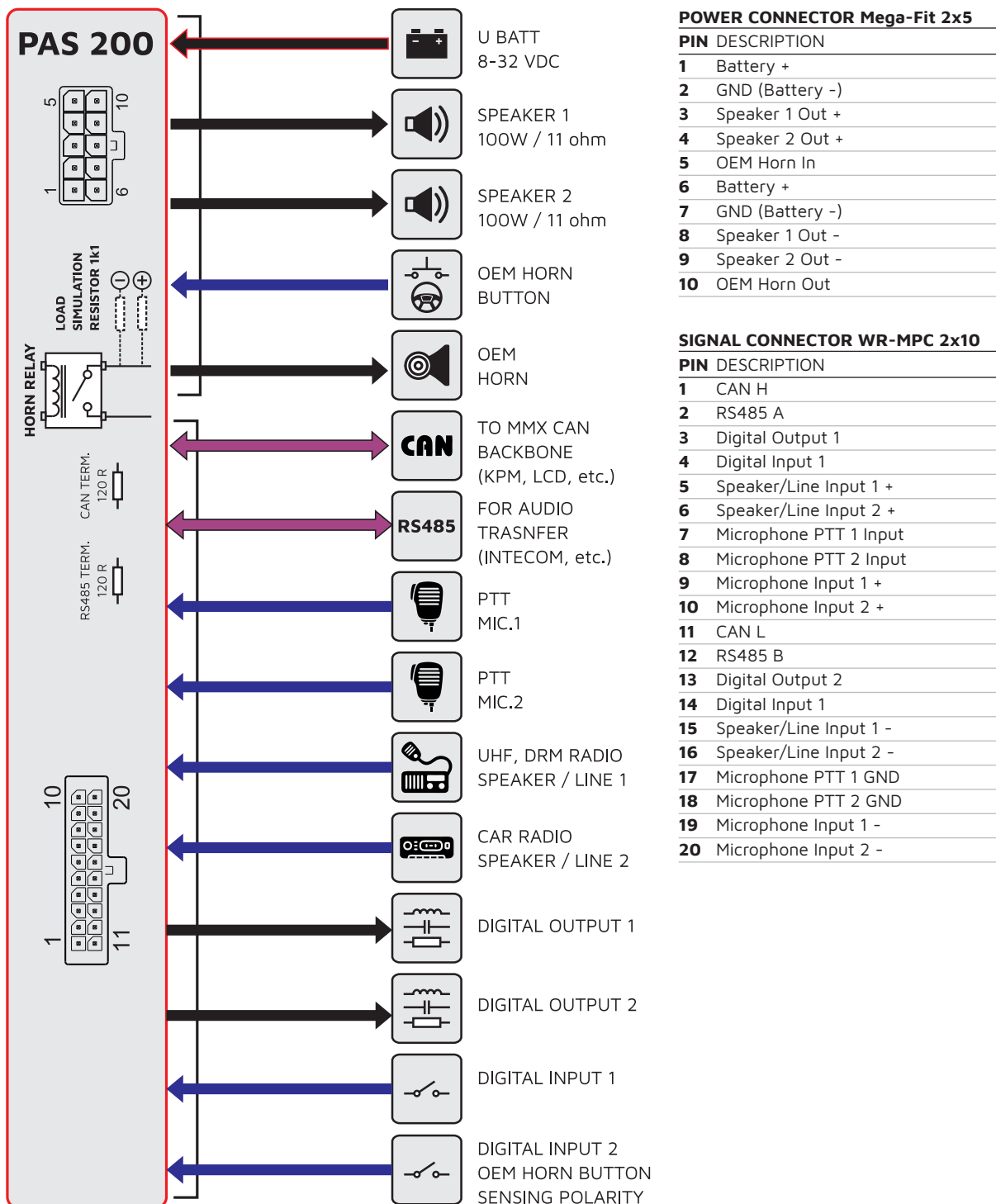
The siren sound can also be changed with the Ring horn button - Horn Ring Cycler function. It has an integrated OEM Horn Ring transfer Relay and load simulation resistor to avoid problems of displaying errors on vehicle's dashboard when the OEM Horn wire is cut. Optionally it can be supplied with extended memory used for Record'n'Play function. For additional functions, two digital high side outputs and inputs are available.

The PAS100/200 amplifier is a part of Emitter Electronics MMX family products and can be controlled by MMX LCD units, keypads or used together with customers CAN bus system.

As a special function, the Amplifier can transfer the sound via RS485 to other devices E.g. Intercom system etc



Block Diagram of all available amplifier functions:



## Ordering Codes

Product Code	Description	Status
PAS-100S	PA Siren Amplifier, Power 100W/11 ohm, CAN, 8-32 VDC, Standard version	Active
PAS-100F	PA Siren Amplifier, Power 100W/11 ohm, CAN, 8-32 VDC, Full version (record'n'play, RS485)	TBD
PAS-200S	PA Siren Amplifier, Hi-Power 200W/11 ohm, CAN, 8-32 VDC, Standard version	Active
PAS-200F	PA Siren Amplifier, Hi-Power 200W/11 ohm, CAN, 8-32 VDC, Full version (record'n'play, RS485)	TBD



For more options please contact the supplier.

## Specifications

POWER	
<b>Supply Voltage</b>	8-32 V DC
<b>Current</b>	max. 30 A + dig. outputs @ 12 V max. 15 A + dig. outputs @ 24 V <50 mA @ IDLE
<b>Electrical Protection</b>	Overvoltage, under-voltage, transients, reverse polarity by breaking external fuse, load dump, over-temperature
INTERFACES	
<b>CAN</b>	1x CAN, ISO 11898 2.0 A/B up to 1 Mbps, protocols SAE J1939, CAN open, free, etc. Baud rate 250 kbps (optional ≤ 1 Mbps)
CAN Termination	120 Ohm, configurable with internal DIP switch
El. Protection	Short to GND or Ub, allowable voltage on pins 0..32V
<b>RS485</b>	TIA/EIA 485, used for audio transfer, Baud rate ≤ 1 Mbps, optional
RS485 Termination	120 Ohm, DIP switch
El. Protection	Short to GND or Ub, allowable voltage on pins 0..32V
AUDIO I/O	
<b>Inputs</b>	
Microphone Level Input	2 x, differential or single ended input, 100 Hz .. 10 kHz @-3dB
PTT (Push To Talk) Input	2 x, active low logic, integrated pull-up resistor
Speaker/Line Level Input	2 x, differential or single ended input, 100 Hz .. 10 kHz @-3dB
<b>Outputs</b>	
Speaker Output PAS-100	1 x, RMS output power 100 W/ch @11 Ω, 100 Hz .. 10 kHz @-3dB
Speaker Output PAS-200	2 x, RMS output power 100 W/ch @11 Ω, 100 Hz .. 10 kHz @-3dB
El. Protection	Overload – short between pins, short to GND or Ub, over temperature
DIGITAL I/O	
<b>Inputs</b>	2 x, active high logic, integrated pull-down resistor
El. Protection	Short to GND or Ub, allowable voltage on pins 0..32V
<b>Outputs</b>	2 x, high side switch ≤ 2.2 A
El. Protection	Overload – short between pins, short to GND or Ub, over temperature

OEM HORN CONTROL	
<b>Relay</b>	Integrated, normally open contacts, ≤ 32V, ≤ 10 A
<b>OEM Horn Input</b>	Voltage sensing, pull-down (optional pull-up) load simulation resistor
MISCELLANEOUS	
<b>LED Diagnostics</b>	1x green run LED on front panel, 1x red error LED on front panel
<b>Monitoring</b>	Internal sensing of supply voltages, CPU core and board temperature, watchdog functionality
ENVIRONMENT	
<b>Temperature range</b>	
Storage	From -40°C to +85°C
Operation	Ambient from -40 to +65°C, internal -40 to +105°C (at full load)
<b>IP Class (IEC529)</b>	IP2x
<b>EMC</b>	Designed to EN 61000-6-2, noise immunity Designed to EN 61000-6-4, radiation of interference Designed to ISO 7637-2 pulse immunity, load dump Designed to ECE-R10.5 noise immunity
ENCLOSURE	
<b>Matting Connector</b>	
Power Connector	Mega Fit 10-way dual row for cables 2.5 mm <sup>2</sup> (16-16 AWG)
Signal Connector	WR-MPC3 20-way dual row for cables 0.5 mm <sup>2</sup> (24-20 AWG)
<b>Housing material</b>	Aluminium housing - anodised
<b>Mounting</b>	4 screws M4 or tapping screws with max. diameter of 4.5 mm
SIZE AND WEIGHT	
<b>Housing dimensions</b>	W x H x D
PAS-100	105 x 48 x 160 mm
PAS-200	105 x 48 x 220 mm
<b>Weight</b>	
PAS-100	0,8 kg
PAS-200	1,1 kg

## Handheld Units

Product Code	Description	Picture	Status
<b>HH-MIC1-01</b>	Handheld mic., electret condenser, PU coiled cable 0.5m, 5x0.8 mm <sup>2</sup>		Standard
<b>HH-MIC2-01</b>	Handheld dynamic mic., Coiled cable 1.1m ( max 1.6m)		TBA

## Siren Speakers

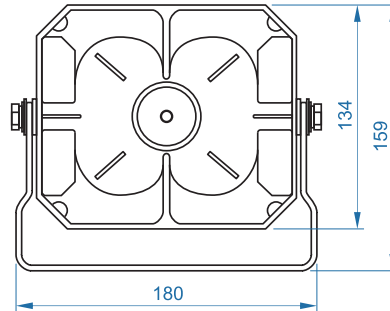
Available are three types of powerful, heavy duty speakers, designed to withstand all weather conditions and to reproduce a clear voice. The Speakers are compatible with Emitter Electronics Sirens.

SPK -R100W11 and SPK-C100W11S speakers are super-thin and can be mounted on various mounting locations, as well as under the hood. On the contrary, the SPK-H100W11 speakers use a big horn and can be mounted in the bumper area, on the roof, near the light bar area, etc.

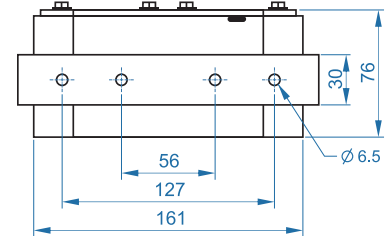
**SPK-R100W11**



FRONT VIEW



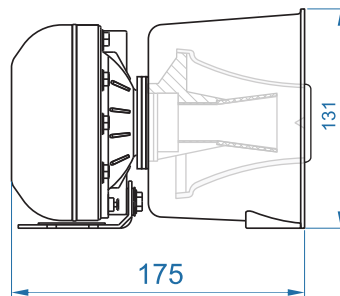
MOUNTING HOLES



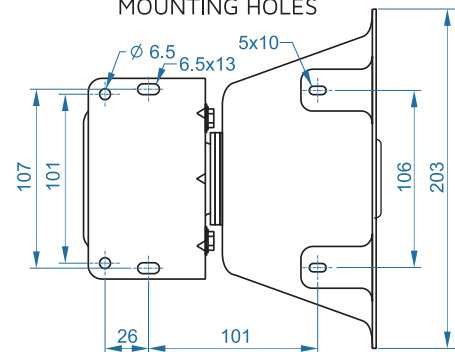
**SPK-H100W11**



SIDE VIEW



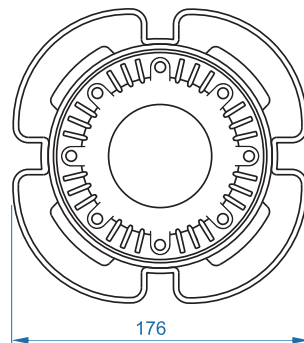
MOUNTING HOLES



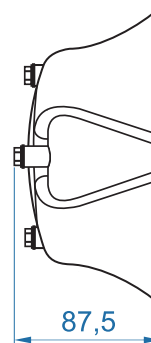
**SPK-C100W11**



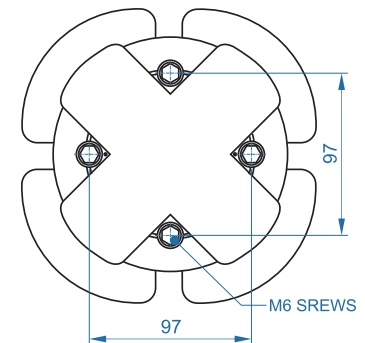
FRONT VIEW



SIDE VIEW



MOUNTING SCREWS



## Specifications

Speaker Specifications	All types
<b>Power</b>	100 W
<b>Impedance</b>	11 Ohm
<b>Sound frequency range</b>	200-5.000 Hz
<b>Sound compression level</b>	>118 dB
<b>Weight</b>	Approx. 3 kg

## Ordering Codes

Product Code	Description
<b>SPK-R100W11</b>	Speaker PA Super Thin, 100 W, 11 Ohm, >118 dB
<b>SPK-C100W11</b>	Speaker PA Circular, 100 W, 11 Ohm, >118 dB
<b>SPK-H100W11</b>	Speaker PA Horn, 100 W, 11 Ohm, >118 dB
<b>For more options please contact the supplier.</b>	

