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### FOREWORD

**CONTINENTAL DB BATTLE** is a competition in which participants compete against each other in a fair contest to determine the loudest possible car hi-fi system.

# SEASON SCHEDULE

Points will not be included in the 2024 season. This should make it easier to get started in the format.

# CHAMPIONSHIP

At the end of the season, a championship will be held in which every participant can take part. It is assumed that the participant has taken part in at least 2 events before the championship. Classes can be excluded if there have been too few participants in this class over the year. This will be announced in good time.

# COMPETITIONS / SEASON GOALS

#### Competitions

- Best Team
  - For the Best Team, event participations are added together and thus the largest and most active team is honored.
- Event Masters
  - $\circ$   $\;$  The participant with the most events will receive a special award.
  - In the jump-off it is decided who has driven the master KM. For this purpose, the distance to the home town/city is taken from the last 2 events.

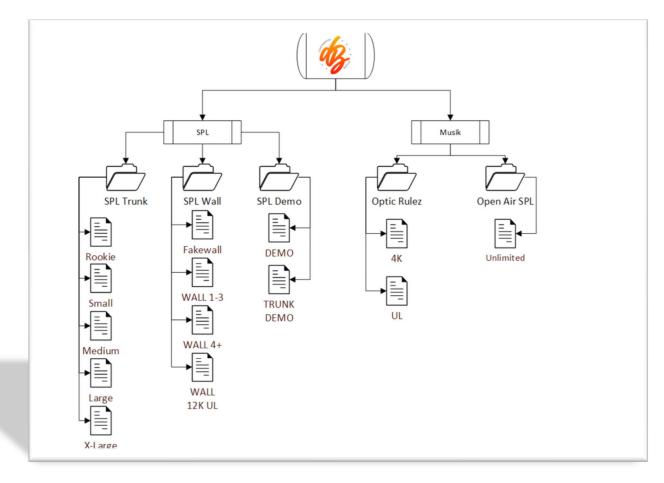
#### • Europen Record Holder

- We are always looking for new records. So show what you can do and become a record holder in our format.
- Mileage Holder
  - The participant with the most kilometers driven to all events will be honored here additionally.





# CLASS OVERVIEW









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Cont	inental d	B Battle	e Class ove	ervie	w 20	)24
Class	Woofer Limit	Power Limit	Original Zustand	Wall	FQ Limit	Window/Door
	SP	L TRUNK				
SPL Trunk Rookie	×	1000 Watt	Überall	×	20- 60HZ	Open/Close
SPL Trunk Small	×	2000 Watt	Trunk Forward	×	20- 60HZ	Open/Close
SPL Trunk Medium	×	4000 Watt	Trunk Forward	×	20- 60HZ	Open/Close
SPL Trunk Large	×	7000 Watt	Trunk Forward	×	20- 60HZ	Open/Close
SPL Trunk XLarge	×	×	Trunk Forward	×	20- 60HZ	Open/Close

#### SPL WALL

Fakewall	×	unlimited	B-Pillar Forward	×	20- 60HZ	Open/Close	
1-3 Wall	Max. 3 Woofer independent of size	unlimited	B-Pillar Forward	$\checkmark$	20- 60HZ	Open/Close	
4+ Wall	Min. 4 Woofer	unlimited	B-Pillar Forward	~	20- 60HZ	Open/Close	5
12K Limited	×	12K Watt	B-Pillar Forward	$\checkmark$	20- 60HZ	Open/Close	

#### **SPL DEMO**

DEMO	×	unlimited	B-Pillar Backward	$\checkmark$	Max. 40HZ		
Trunk DEMO	×	unlimited	B-Pillar Backward	Only C-Wall	Max .40HZ		
Maximum frequency at 40 Hz. 2 measurements with 2 different frequencies with a minimum of 10 Hz in between.							

#### **Open AIR SPL**

The participant takes 2 measurements (1x inside + 1x outside) with the same song (music without SPL frequency tone). The average value is then calculated, which is the final result. Frequency range for indoor measurement 20Hz-80Hz, outdoor measurement FQ without restriction.

#### **Optic Rulez**

Up to 4K Watts	×	4000 Watt	×	$\checkmark$
More than 4K Watts	×	Unlimited	×	$\checkmark$









#### **Basic agreement**

The participant is obliged to follow the instructions of the staff. The results of the judges are final. The judges have the right to exclude participants from the competition or reduce points due to bad behavior, whether it is a violation of the rules or a discussion of the result. Hearing protection is recommended from 150DB. Each participant is responsible for his/her own health. They must also ensure that third parties are not harmed by the use of their vehicle. The CONTINENTAL DB BATTLE Team is not responsible for any material or physical damage caused by exposure to high sound pressure levels.

The rules of the StVO and StVZO must be observed. The participant is solely liable for damage caused by participants to third parties. No alcohol in the measuring area. The driver must be fit to drive.

#### The measurement

Measurement is based on the format and the corresponding class. The measurement can be carried out with a sine tone or music (see classes).

The measurement may be carried out with closed or open doors/windows.

There will be a head judge at each event who is not allowed to take part in the measurement. The other members of the CONTINENTAL DB BATTLE team may take part in the official measurement. This is to ensure that the evaluations and classifications are always neutral. The vehicle must enter the lane under its own power.

For elimination rounds, the participant has a maximum of 5 minutes to enter the lane and be ready for measurement. If this time is exceeded, the run is deemed invalid.

Measurement for beginners If the participant has no experience with SPL measurements, he can contact the judges in advance who will then instruct him if possible. A sweep track (30-80Hz) is then taken during the competition to check where the vehicle is loudest. Then the competition measurement takes place.

#### One car in several classes / competitions?

In principle, cars may start in several classes and competitions. However, cars may not be modified during an event to reach these classes / competitions.

#### Exchangeable ports / variable ports:

The participant can exchange / adapt the port after a measurement as long as it does not fit into another class. The participant can then measure again, the better value will then be counted.

#### **External power supplies**

External power supplies are prohibited in all classes during measurements.







#### Insulation

Insulation is not a decision criterion in the classification. As long as the normal function of the insulated vehicle parts is given. This means that the cover, such as the roof lining, must also be present or may lead to a different classification.

#### Batteries/CAPS/LiFiPo/SuperCaps

The type and amount of power supply used will not affect the class classification. Only the positioning of these components is decisive. The important thing is that they belong to the system and also affect the classification "trunk" or "up to B-pillar".

#### **B-pillar**

The B-pillar is the edge that faces the A-pillar. In other words, the side that is closer to the windshield.



#### There will be several options for measuring the power:

1. the power specification by the manufacturer at the lowest ohm number

2. the power measurement is carried out either by the Termlab power probe measuring system or by a multimeter with max hold function and an ampere clamp

3. the fuse value x 12.4V is used to determine the theoretical power. The power measurement may vary from event to event.

However, the principle in favor of the participant applies here.

If a power measurement cannot be carried out or the measured value is doubtful, the participant starts in the highest class of his category.

#### **Power classification:**

The competitor can start with any power amplifier in any class. If the power amplifier can theoretically deliver more power than the class in which he wants to start, a measurement must be carried out. If this can only be carried out passively with measuring clamps and a multimeter, the participant has 2 attempts to submit a value in the class.









#### SPL Trunk General

⇒ Housing, output stages, additional batteries and capacitors must be installed behind the rear seat bench in the trunk. Batteries / LifiPo / capacitors may be permanently installed in the engine compartment and do not affect the trunk class.

#### SPL Trunk General

- ⇒ The rear seat bench must be able to engage in all retaining points. If, for example, an amplifier is bolted to the rear seat and this is folded down into the passenger compartment, the vehicle remains in the trunk class. Normal use of all seats in the interior must be possible. (Seat test by judge)
- $\Rightarrow$  The highest point of the system must be at least 20 cm from the roof. A subwoofer installed in reverse does not count as the highest point.
- $\Rightarrow$  The vehicle must have a valid road license. The operator can operate the radio with a podium from the outside or from the inside. If a podium is used, no person may sit in the vehicle. In all trunk classes there is a frequency limit of 20-60HZ.

#### SPL Trunk R

- $\Rightarrow$  Up to 1000 Watt/RMS
- ⇒ Enclosures may only be ready-made boxes from retail outlets. (subwoofer + enclosure). Prefabricated enclosures for the installation of subwoofers are excluded. All trim components and fabric covers must be present and must not be visibly reinforced with insulation.
- $\Rightarrow$  No championship is offered in the SPL Trunk R. However, the participant can still start in the other classes.

#### SPL Trunk S

- $\Rightarrow$  Up to 2000 Watt/RMS
- $\Rightarrow$  Box, stages, additional batteries and capacitors in the trunk.

#### SPL Trunk M

- $\Rightarrow$  Up to 4000 Watt/RMS
- $\Rightarrow$  Box, stages, additional batteries and capacitors in the trunk.

#### SPL Trunk L

- $\Rightarrow$  Up to 7000 Watt/RMS
- $\Rightarrow$  Box, stages, additional batteries and capacitors in the trunk.

#### SPL Trunk XL

- $\Rightarrow$  More than 7000 Watt/RMS / Measurement not possible
- $\Rightarrow$  Box, stages, additional batteries and capacitors in the trunk.







#### SPL WALL General

- $\Rightarrow$  Removal up to the B-pillar. It must be possible to attach the belts to the original attachment points, but they may be removed for measurement.
- ⇒ A doubling of the windshield or safety glass is permitted. Maximum double the size of the original windshield. Bracing from the roof to the body or vehicle floor is permitted.
- $\Rightarrow\,$  Tension belts around the doors are permitted. (Doors must not be bolted). Battery box/floorcuts are permitted.
- $\Rightarrow$  The operator can operate the radio with a podium from the outside or from the inside. If a podium is used, no person may sit in the vehicle.
- $\Rightarrow$  In the Wall classes there is a frequency limit of 20-80Hz.

#### Fakewall

- $\Rightarrow$  Unlimited power
- $\Rightarrow$  No subwoofer limitation
- $\Rightarrow$  Enclosure, power amplifiers, additional batteries and capacitors behind the B-pillar.
- $\Rightarrow$  Min. 30cm to the headliner. The most optimal point for the subscriber is measured here. If, for example, the port is the highest point of the system and this would only be 28 cm to the roof at one point and 32 cm at another point, then the 32 cm count here.

#### WALL 1-3 Woofer

- $\Rightarrow$  Unlimited power
- $\Rightarrow$  1-3 Subwoofer (regardless of subwoofer size)
- $\Rightarrow$  Enclosure, power amplifiers, additional batteries and capacitors behind the B-pillar.

#### WALL 4+ Woofer

- $\Rightarrow$  Unlimited power
- $\Rightarrow$  4 or more subwoofers (regardless of subwoofer size)
- $\Rightarrow$  Enclosure, power amplifiers, additional batteries and capacitors behind the B-pillar.

#### WALL 12K Limited

- $\Rightarrow$  Power limited to a maximum measured 12,000 watts
- $\Rightarrow$  No woofer limitation
- $\Rightarrow$  Enclosures, power amplifiers, additional batteries and capacitors behind the B-pillar.







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#### Demo / SPL Trunk DEMO

- ⇒ There are no power limits or subwoofer classes in the demo class. There are 2 measurements, each with a 10Hz difference, but both must be below 41Hz. This means, for example, measurement 1 30Hz and measurement 2 40Hz. The average value is then calculated from these values, which represents the final result.
- $\Rightarrow$  Example: 30Hz 152.2DB and 40Hz 155.5DB = 307.7 /2 = 153.85 points.
- $\Rightarrow$  The sensor may be attached either to the windshield or to the headrest. However, this measuring point must be used for both measurements.
- $\Rightarrow$  The operating voltage may exceed 16.4v but may not exceed 18v.
- $\Rightarrow$  In the SPL Trunk DEMO classes, bodies generally referred to as C-Wall may participate.
- $\Rightarrow$  Sport coupes and convertibles in particular have a class in which they can compete again.
- $\Rightarrow$  The Smart has a special vehicle form here, which may always start in the SPL Trunk Demo.
- $\Rightarrow$  Maximum frequency in the DEMO classes is 40Hz

#### **OPEN Air SPL**

- $\Rightarrow$  There are 2 measurements in this format.
- $\Rightarrow$  The first measurement is taken inside the vehicle (headrest or windshield).
- ⇒ The second measurement is taken next to the vehicle. The measuring point is discussed in advance with the judges. E.g.: for doorboards, the measurement is taken behind the open driver's door at the height of the rear light; for rear bars, the measurement is taken behind the car.
- ⇒ The average value is then calculated as the result. The length of the vehicle does not play a role as small vehicles have disadvantages in the interior and larger ones on the outside are balanced out. (For example, a Smart cannot install 6 18-inch wheels).
- $\Rightarrow$  Frequency range for indoor measurement 20Hz-80Hz, outdoor measurement FQ without restriction.

#### **Optic Rulez**

- $\Rightarrow$  The class for show Cars. A simple division by the power of the subwoofer amplifier into up to 4KW and more than 4KW.
- ⇒ The participant will receive a score from the judges which can range from 0 to 10. For each point the participant receives 0.5dB on his measurement result. In case of close decisions, the audience can be consulted.
- $\Rightarrow$  Otherwise the better judge rating is decisive.
- $\Rightarrow$  The goal is to provide a fair platform for tuners who have placed the topic of optical tuning in the foreground.

# CLOSING REMARKS

In case of questions or ambiguities, the jury team will make a decision on site which can be changed afterwards. The entire team will discuss the case afterwards and add it to the rules if necessary. The goal of this set of rules is to offer participants an open competition platform without making it too complicated.

We wish all participants lots of fun and a successful season.





