

Eton RES flat – an ultra-flat subwoofer for the spare wheel well



The slimming cure

► With the RES 10 A, Eton has released a top-class active subwoofer. Now, with the RES flat, the ultra-flat version is coming. We'll figure out if the flat unit can keep up.

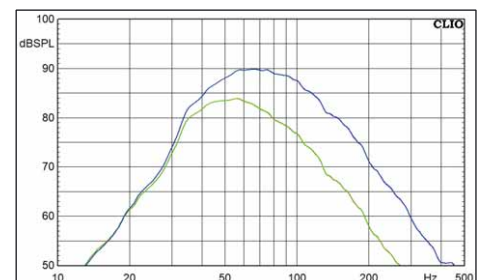
Eton's RES 10 A is one of the best active subwoofers on the market. With its first class manufacturing, a competent flat woofer chassis and a power amplifier with more than 200 watts, it sets itself way above the

average. The housing concept for the spare wheel well makes it super practical. So far so good, but not for the vehicles that don't have a full-fledged spare wheel. For some popular cars like Golf VII or Seat Leon, the well is only 13 centimeters (5.1") deep, thanks to their emergency wheel. So the task for the Eton technicians was to build a RES that would fit in. The result is our testling RES flat, and it does all honor to its name. With 5" housing height, it does its job perfectly. And, of course, these are indeed just 5 inches, with no extra dimensions added by the woofer basket or protective grille. Rather, the woofers are embedded in the housing and protected by a flush sheet metal grid. The practical

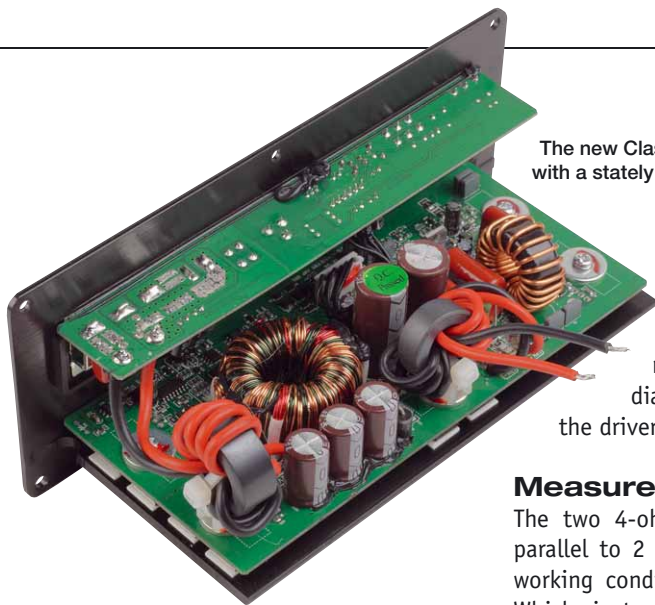
attachment to the spare wheel mandrel was taken over from the RES 10 A, for which a very solidly made tunnel passes through the housing in the middle. It is provided with a rubber stopper on top to make it look good. The extremely solid MDF housing is a perfect octagon and is covered with a black, impact-



Two elaborately crafted 6" drivers with neodymium motor ensure the SPL



Flawless amplitude response with a perfectly sufficient lower cut-off frequency and a well designed low-pass filter.



The new Class-D power amplifier supplies the woofer with a stately power of 280 watts

cones as well just like large subwoofers. The voice coils, wound on perforated aluminium beams, measure 1.5" in diameter, which is really bold for the driver size.

Measurements and sound

The two 4-ohm woofers are connected in parallel to 2 ohms, which provides optimal working conditions for the mono amplifier. Which, in turn, should not be underestimated and pushes a whopping flow of 279 watts into both woofers. The distortion values of 0.02% and 0.1% are so low that they would be complimenting a full-range amplifier. The RES flat also delivers an exemplary sound performance. It's amplitude reaches down to less than 40 Hz - not bad for the 6" drivers. This is made possible by the integrated wooden tunnel, which ensures an extra-deep bass reflex tuning. Regardless of their small diaphragm diameter, the two 6" woofers create a lot of pressure in the car. There is never too little bass and no one will complain about the lack of draft. The Eton runs even better with rock music, here it sets some lightning-clean strokes and even fast bass sections are perfectly defined by the woofer. The woofers are extremely impulse capable, you always have the feeling of getting all the fine details in the music. Even if the volume bar runs dangerously to the right, the woofers stand as one. All in all, the sound quality can only be described as excellent.

Conclusion

The quality of the RES flat is alright. It is excellently crafted, technically smart and offers the best possible sound - now also from the emergency wheel well.

Elmar Michels



The vented housing is only 5" high and therefore suitable for emergency wheel trays

BEST PRODUCT
Top Class
CAR & HiFi 1/2020

Eton RES flat

| | |
|-------------|-----------------|
| Distributor | Eton, Neu-Ulm |
| Hotline | 0731 70785-20 |
| Internet | www.etongmbh.de |

| | | | |
|-------------------------|-------|-----|-------|
| ▶ Sound | 30 % | 1,1 | ■■■■■ |
| Low Frequency Extension | 7,5 % | 1,0 | ■■■■■ |
| Pressure | 7,5 % | 1,5 | ■■■■■ |
| Tidiness | 7,5 % | 1,0 | ■■■■■ |
| Dynamics | 7,5 % | 1,0 | ■■■■■ |
| ▶ Lab | 40 % | 1,1 | ■■■■■ |
| Frequency Response | 10 % | 1,0 | ■■■■■ |
| Maximum Level | 10 % | 1,5 | ■■■■■ |
| Power output | 20 % | 1,0 | ■■■■■ |
| ▶ Practice | 30 % | 1,2 | ■■■■■ |
| Equipment | 10 % | 1,5 | ■■■■■ |
| Workmanship Electronics | 10 % | 1,0 | ■■■■■ |
| Workmanship mechanics | 10 % | 1,0 | ■■■■■ |

Specifications

| | |
|------------------------|----------------------------|
| Cabinet width | 50,6 |
| Cabinet height | 12,6 |
| Cabinet depth | 50,6 |
| Type/Volume | BR 16,5 l |
| Reflex opening (d x l) | 32 cm ² x 21 cm |
| Weight | 10,8 |

| | |
|------------------------------------|-----------|
| Driver diameter | 2 x 15 cm |
| Nominal impedance | 2 x 4 Ohm |
| Voice coil diameter | 38 |
| Output at nom. imped. | 279 |
| Sensitivity RCA max. | 80 |
| Sensitivity RCA min. | 2,2 |
| THD +N (<22 kHz) 5 W | 0,02 |
| THD +N (<22 kHz) half power | 0,11 |
| Signal-to-noise ratio (A weighted) | 71 |

Equipment

| | |
|-----------------------|-----------------|
| Low-pass | 40 - 90 Hz |
| Bass boost | - |
| Subsonic filter | - |
| Phase shift | polarity switch |
| Low-Level inputs | • |
| High-Level inputs | • |
| Automatic switchover | •, DC |
| Start-stop capability | - (7,8 V) |
| Remote control | •, Gain |
| Miscellaneous | - |

Rating

| | |
|----------|----------------|
| Price | 400 Euro |
| Sound | 30 % 1,1 ■■■■■ |
| Lab | 40 % 1,1 ■■■■■ |
| Practice | 30 % 1,2 ■■■■■ |

Eton RES flat

Absolute Top Class
Top Class
Upper Class
Middle Class
Entry Level

1,1

Price-Performance:
Very good

CAR & HiFi

Issue 1/2020

„Successful slimming:
now also for the emergency wheel tray“