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If you're looking for a trend in living rooms that is the equal of the takeover of the flat-panel TV, look no further than the simple expression "2.1". Two standing loudspeakers and a subwoofer, and already the stage is set for HiFi as well as for home cinema. For many people, especially avowed music enthusiasts, there is no need for anything else once they've inserted the disc and allowed the system to work its magic, rumbling away in the depths of the bass.

Complete systems like those from Final Sound go one step further. A combined DVD player and receiver/amplifier controls the performance, and since the unit "knows" the speakers that are connected to it, it can optimise the directions sent to the signal conditioner, depending on the environmental conditions and purpose of use. So far so good for the theory.

In practical terms, the brand-new Final Sound kit consists of the FVSS 201 DVD Receiver, an S110 active subwoofer and a pair of 90i panel speakers. And if the classic, purist nature of this offering immediately makes you think of top-of-the-range and your overdraft, here's the

surprise: even at first glance the 1900 euro you need for this quartet appears in no way excessive. That is especially true given that the busy boffins at the Dutch firm have long attracted all sorts of praise for the sound their equipment produces, even if panel speakers still retain a somewhat exotic aura today.

The 90i speaker uses the principles of electrostatics to work its magic, with a gossamer-thin diaphragm membrane that vibrates between two high-voltage grid electrodes. While the movement itself is only small, the large surface area drives sufficient volumes of air forwards, and backwards when the phase is reversed. Electrostatic speakers work like a dipole, therefore, but so quickly that they are ideal for use in reproducing pulse waveforms. As a result, they are credited with particularly dynamic capabilities, and especially a capacity to produce an airy, open sound. At the same time, their strongly directional performance is often a thorny issue. For the same reason, they have the reputation of being very difficult to set up – and of only being truly effective in one audio "sweetspot".

Ultimately, the Final transformer was totally unobtrusive, even when warming up in the audio/video room. The installation of the entire kit was complete once the speakers had been positioned in their usual location. On the other hand, the work required to preassemble the two speaker stands was more of a challenge to our fine motor skills. It goes without saying that we attempted to determine whether a slight variation in angle up or down helped achieve a greater spatial effect. Systems of this type need just slight adjustments like this to maximize their sound quality, and that is certainly a large part of their attraction.

The smart DVD receiver also proved no problem and was set up in a few moments. Configuration was simply a matter of telling the receiver about the speakers that were connected, how far they were located from the listening position, and whether they were situated close to or away from the walls. Once this was done, the FVSS 201 had all the information it needed to manage the specific installation - it was time to bring on the music. Chick Corea ("Piano Improvisations Vol. 2") was first up,

The flat electrostatic speakers look almost as though they have been crocheted, with their grid electrodes. Around the back (see image, right), things get a bit fiddly, as the terminals are very small.





and immediately struck the right note with crystal-clear sounds that seemed so present, the grand could have been with us in the room. No less tangible was the next performance, from Beth Gibbons ("Out of Season"), whose soft and almost fragile voice seemed to breathe even more air into the system. The Final kit was not just designed for soloists and small groups, however, as proved by the band Moloko ("Statues"), whose catchy electro-pop is extremely demanding in terms of dynamics and sharpness of reproduction. Even the increasingly tumultuous music in their song "Forever More" could be distinguished by the panels, while the bass cube delivered full-on attacks from below, although at higher levels they were perhaps slightly too ample, so that the testers adjusted the woofer levels downwards.

This adjustment also proved its worth for the orchestral pieces, when the Dutch rig created a wide, impressively deep stage in the room and put each individual instrument in its correct location. The system impressed with its dynamics here, too, from a fine, trembling solo through to the full sound of the entire orchestra, as in Berlioz'" Symphonie fantastique."

So far so good. If your CD collection has run out by this point, then bring on the MP3s, since the receiver is just as happy connected to auxiliary sources. Only one tendency could be heard throughout the set - at very high volumes, albeit far above what the neighbours would consider acceptable, the woofer and panels reach their limits. They have not been designed with such loads in mind.

## THE GRAND PIANO WAS WITH US IN THE ROOM

But that in no ways means they would be impotent in the home theatre setup. Quite the opposite, in fact, especially when the electronic wizardry provides a full surround sound effect thanks to the virtual speaker circuits. Adhering strictly to the requirements of Dolby, the sound from the multichannel track is transformed into an almost perfect surround experience using just the front speakers. The Final was definitely up to the job – "The Italian Job", in fact. The motor-gondola engines of the first chase scene growled through Venetian waterways, while a few moments later, the safe opened with a soft click that was still clearly audible above the background. Switching the reproduction mode to "Wide" not only gave additional width to the performance, but also increased the levels notably – as Dolby demands.

The imposing sound in no way diverted from the video reproduction, either, which was of equally high quality. The initial scenes of Star Wars III reached into the depths, with starfighters flitting all around the room. In stark contrast were the dusky opening scenes of "Sin City", while the player coped equally well with the sweeping scenes over the city's skyscrapers. The final scenes of "King Kong" were so sharp that every detail was visible, down to individual hairs on the beast's shaggy coat, while the strong colours of the dawn sky rose above the detailed canyons of Manhattan just before fighter jets swooped down in formation on the city's towers. Both optically and acoustically, this was a very special demonstration, with only tiny scope for finding fault.

The active subwoofer offers its own connection and configuration options (left). Standing on pointed feet, the black cube booms out the deep bass sections of music and film tracks alike.



On the rear (left), the DVD receiver fizzes with connectors and is happy to be joined to any external sources. A USB port can even be used to receive MP3 and JPEG files. The front panel, in contrast, is almost a minimalist's dream.





## **CONCLUSION:**

This first showing was successful – it proved that the demands of complex musical reproduction and an impressive movie sound are not so different that they cannot be met by an all-in-one system. For good measure, the video quality of the player also delivered the goods. This Final Sound set should, therefore, also please the film enthusiasts who previously cared little for the high-end flair of panel speakers. At this price, it's a real hot tip.

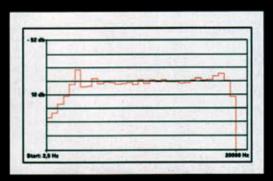


video editor



The well laid-out remote control allows you to operate the entire system quickly and easily. The frequency range detected at the listening location (see chart below right) shows a balanced progression.





Equipment	
Manufacturer	Final
Model	FVSS 201, 90i, S110
Distributor	Audio Reference
	Alsterkrugchaussee 435
	D 22335 Hamburg
Web address www.	audio-reference.de
Telephone	+49 40 533 20 359
Price (RRP)	€1900.00
Guarantee	5 years
Region code	2
Dimensions (W x H x D)	
Control unit	42 x 6 x 33 cm
Subwoofer	33 x 33 x 33 cm
Front/centre satellites	21 x 58 x 3 cm
Trong centre satetites	21 X 30 X 3 CIII
Equipment	
Audio	
	+/+
Dolby Digital/DTS	*/*
Pro Logic II	-
Dynamic compression	-
DSP spatial sound programs	*
Video	
NTSC/PAL	*/*
Radio receiver	
Waveband/station presets	FM, MW/19
RDS/PTY/Radio text	*/-/-
Playback	
DVD/CD/Video-CD/DVD-Audio/SACD	*/*/*/-/-
CD-R/CD-RW/SVCD/MP3/JPEG	*/*/*/*
Direct selection of	-/-/-
Title/Chapter/Marks/Time	' ' '
DVD read time	14 seconds
Playback lock	*
rayback tock	
Remote control	
TV/DVD system control	*/*
Learning/programmed	*/-
Learning/programmed	7-
Displaye	
Displays	*/*/*/-
Title/Chapter/Playback time/Time	"/"/"/-
remaining	
Bitrate	-
Device display: dim/off	-/-
Connections	
Video	
Scart in/out	-/2
HDMI in/out	1/1
YUV in/out	1/1
S-Video in/out	2/1
Composite video in/out	2/1
Audio	
Digital output (audio) optical/coax	-/-
Digital input (audio) optical/coax	2/2
Phono audio in/out	3/-
1 Hono addio III/ odt	J.
Other connectors	
Other connectors  DV in/out	-/-
USB/Common Interface	1/-
Miscellaneous	Plays AAC audio, WMA audio, Mpeg4 video
	and DivX
Test results	
Manufacturer	Final
Model	DVD Receiver FVSS 201

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Test results	E. 1		
Manufacturer		Final Pi/SS 204	
Model		DVD Receiver FVSS 201	
	Loudspeaker set 90i		
	Subwoofer S110		
Price	€1900.00		
Video test (max. 30 points)	Very good 27		
Visual inspection			
Sharpness (35%)		Excellent	
Contrast (35%)		Very good	
Picture quality (30%)	Excellent	Excellent	
Audio test (max. 30 points)		Very good 26	
Digital surround (AC-3) (60%)		Very good	
HiFi (40%)	Excellent	Excellent	
Testbench (max. 10 points)	Good 6	Good 6	
	Image change		
PQ analysis	Slow (40%)	Fast (60%)	
Image quality - brightness	85%	65%	
Image quality - colour	84%	63%	
Moving image noise	81%	66%	
PQA assessment	Good		
Error correction	Satisfactory	1.5 mm	
Power consumption (standby)	1.1 Watts		
Operation (max. 20 points)	Very good 16		
Remote control (35%)	Very good		
Device controls (30%)	Good		
OSD menus (15%)	Very good		
Operating instructions (10%)	Satisfactory		
Installation (10%)	Good		
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Equipment (max. 10 points)	Good 7		
video Score (max. 100 points)	Very good 82		
Value for money	Very good		