

# Electrocompaniet EC 4.8 MKII/AW 800 M

Celebrating a legacy that stretches back 50 years, the Norwegian brand stamps its authority with the heavyweight AW 800 M flagship amplifier – a solid cube of power!  
 Review: **Andrew Everard** Lab: **Paul Miller**

There's a classical simplicity about this flagship pre/power amplifier combination from Electrocompaniet. The style – realised here with clear-on-black acrylic fascias with gold detailing – harks back to its first amp, 'The 2 Channel Audio Amplifier' [*HFN* Dec '11], based on Dr Matti Ojala's tackling of 'Transient Intermodulation (TIM)' distortion, shortly after it began operations in 1973. Coming right up to the present day, both the £3599 EC 4.8 MKII preamp and the £19,500 AW 800 M 'Reference Monoblock Power Amplifier' are fuss-free and purposeful. The preamp, a line-only, dual-mono, fully-balanced design, is actually

Electrocompaniet's only preamplifier (there is the £1999 ECP 2 MkII phono stage), and its controls are kept to a minimum, with nothing more than a power switch and a 'diamond' of buttons serving volume up/down and input selection.

### CLEVER CUBE

By contrast, the power amp, a substantial 55kg 406x292x488mm (whd) block, has rather more trickery up its sleeve. The 'mono' architecture here is, in fact, stereo by design but with the facility to bridge the two sides into a single channel capable of twice the voltage. It would therefore make perfect sense to buy a single AW 800 M, keeping the total pre/power budget down

to well under £25,000, and then consider adding a second amplifier at a later date.

In high-end hi-fi terms, all this pricing looks pretty sensible, especially when you consider that the entire range is still built in Tau, on the north-west coast of Norway, where Electrocompaniet has been located since its acquisition by Westcontrol. The parent company makes electronics systems for everything from aviation and automotive applications to robots and fish-farming. The production set-up is highly automated, from PCB population and flow-soldering to final quality testing, so the entire design and build remains in-house.

### HEAVYWEIGHT HEATSINKS

The AW 800 M uses Electrocompaniet's familiar direct-coupled, high slew-rate, wide open-loop bandwidth topology, and its performance is reflected in the low distortion, low noise and wide response of PM's independent measurements [p65]. The power amp proper takes the form of two modules, each complete with its own power supply smoothing and regulation plus heavyweight heatsinking for the 32 high-current bipolar transistors. The 'dual mono' design also extends to its pair of toroidal mains transformers, each



**LEFT:** The AW 800 M's blue logo and power illumination can be defeated but there's no hiding this massive cubic chassis with its thick acrylic fascia and distinctive, bright gold finishings



screened under a chromed metal enclosure [see our inside picture, p63].

Both amplifiers featured here are part of what Electrocompaniet calls its 'Classic' range, separate from its 'EC Living' lineup of compact streaming speakers and electronics. The EC 4.8 MKII preamp has two sets of balanced inputs on XLRs, and three RCA line-ins, including an AV/home theatre bypass feeding straight through to the outputs at fixed level. A blue-on-black display shows the connected input, plus volume setting, but the main outputs are on balanced XLRs only. The RCAs [see p65] are fixed-level line-outs for anyone still using an analogue recorder.

### MAKING A CONNECTION

The relatively greater complexity of the AW 800 M amplifier requires more care with the selections on the rear panel switches and the connections to the preamp and speakers, which run to three pairs of XLRs on the input side, and a total of eight speaker terminals [again, see p65]. Used as a mono amp, just the central XLR input and two of the red 'positive' terminals are employed, with the toggle switch below the central input set, naturally, to 'mono'. Stereo operation, the mode used in our

*'The lovely, rich sweep of music simply carried us away'*

listening sessions, requires you to connect the outer XLR inputs, marked for left and right channels, while there's also provision for bi-amping via the amp's corresponding daisy-chain 'Link' outputs.

Switching on the AW 800 M from standby, during which it shows a red illumination of the front panel switch and logo, will turn the lighting to blue, and then you can select whether the lights stay on or are defeated when playing music. Your choice is made via a little button hidden under the fascia while another button nearby enables an automatic powering-down after 30 minutes of no signal. Otherwise, there's no remote switching of the power amp from the preamp – the former has 12V trigger switching, but the latter doesn't.

### EASY LISTENING

Hooked up between the dCS Vivaldi APEX DAC [HFN Jun '22] and new Bowers & Wilkins 801 D4 Signature floorstanders [p54], the EC 4.8 MKII/AW 800 M combination immediately confirms itself as an entirely compelling listen, if one hiding its considerable abilities behind supreme ease of

**ABOVE:** The EC 4.8 MKII preamplifier is 'classic' Electrocompaniet with its transparent acrylic fascia sporting gold volume and input selection buttons, all indicated on a vivid blue display

listening. With the familiar SACD release of Elton John's *Goodbye Yellow Brick Road* [Mercury/Rocket Record 981 320-5], the amp handles superbly the changing levels and tempi of the opening 'Funeral For A Friend/Love Lies Bleeding' sequence. It opens up the character of Elton's piano and the lush backing, while still making clear the tight, gutsy contribution of the 'power trio' of Davey Johnstone, Dee Murray and Nigel Olsson, plus Ray Cooper's percussion, all revealed by the exemplary, epic production from Gus Dudgeon.

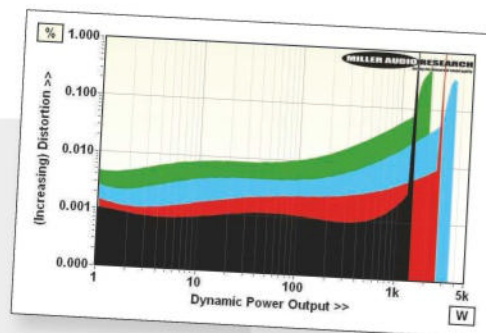
The AW 800 M will run as loud as anyone could ever want, really getting the 801 D4 Signature speakers moving. It's just as convincing, though, with the simple soundstaging of the remastered Yusuf/Cat Stevens album *Tea For The Tillerman* [Island/Cat-O-Log 0602508820359], where the no-frills, often acoustic instrumentation, and the clarity with which the voice is captured, is entirely delightful.

There's an appealing warmth about the sound here, pitching the AW 800 M a long way from those high-end amplifiers seemingly capable – and keen – to rearrange the listener's fillings. In this instance, that richness and scale is never at the expense of detail. Instead, this amp manages to sound full-scale

and weighty without any detriment to the openness and ambience on offer.

### SENSE OF OCCASION

That's much in evidence with the live recording of the 2023 Vienna 'Summer Night Concert' [Sony Classical 19658818942; 96kHz/24-bit]. The Vienna Philharmonic is on sparkling form under Yannick Nézet-Séguin, delivering a programme concluding with a stately, but relentless, reading of Ravel's 'Boléro', and then a joyous Strauss 'Wiener Blut Waltz'. There's a palpable sense of occasion and



### MODULAR MONOS

Despite the 'M' in its name, the AW 800 M is a modular stereo power amp [see Lab Report, p65], and will surely be used by audiophiles as such. That said, Electrocompaniet would still rather we bought a pair to be used as bridged monoblocks boasting a full 800W, 1.5kW and 2.2kW into 8, 4 and 2ohm loads, respectively. So how does it stand up in practice? Bridging the stereo channels into one doubles the voltage gain (29.4dB to 35.4dB), realising 1.14kW/8ohm and 1.93W/4ohm – figures that are comfortably in excess of the brand's claims.

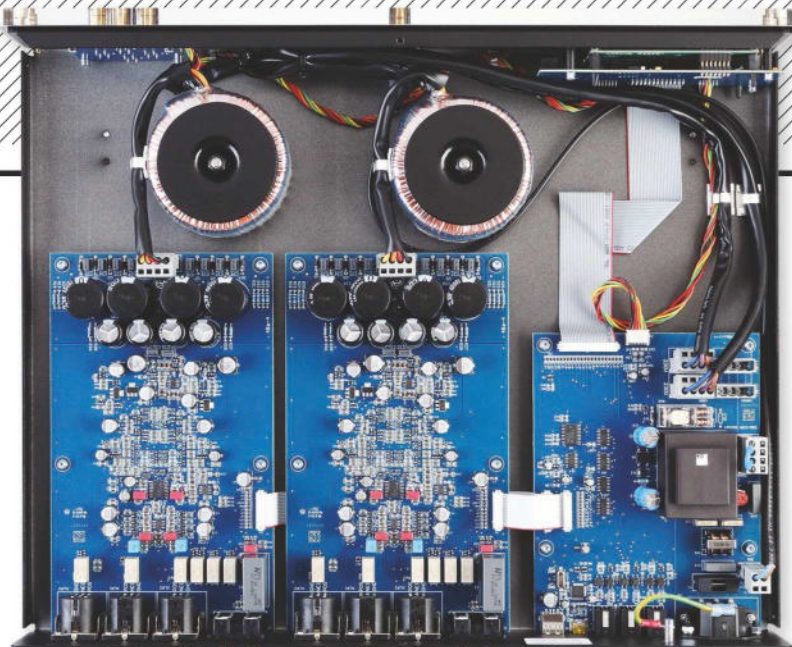
There's more under dynamic, music-like, conditions [see inset Graph] with 1.42kW, 2.62kW and a speaker-pummeling 3.49kW (41.8A) available into 8, 4 and 2ohm, respectively (re. 10msec at <1% THD). Bridging also halves load 'seen' by the amp, so Electrocompaniet has limited the AW 800 M's output to a 'reduced' 1.94kW/1ohm (44.0A). Distortion remains vanishingly low in bridged mode, settling at 0.0003%/1W to 0.0004%/100W, 0.001%/500W and 0.002% at the rated 800W (all 1kHz/8ohm). Versus frequency, distortion is also well controlled at 0.0002-0.0013% (10W, 20Hz-20kHz) and while the response matches its stereo mode at -0.15dB/20kHz to -1.6dB/100kHz, the doubling of its source impedance causes a greater treble roll-off into lower impedances. Bottom line? Stereo or mono, the AW 800 M is a potent powerhouse! PM

# LAB REPORT

## ELECTROCOMPANIET EC 4.8 MKII

With no RIAA phono stage or integrated DAC on board – the ECP 2 MKII and ECM1 MKII, respectively, cater for these options as separates in their own right – the EC 4.8 MKII remains a purist, fully analogue line preamplifier. Maximum gain is +4.8dB, or x1.7 (balanced in/out), and while the residual noise is held to a fabulously low –99.6dBV (10.5µV) the 92.5dB A-wtd S/N ratio (re. 0dBV) is just a few dB higher than anticipated. This is a function of white noise rather than hum, so anyone thinking of pressing the EC 4.8 MKII into service as a headphone amplifier – via a suitable XLR- or RCA-6.35mm adapter – and especially if driving sensitive in-ears, should bear this in mind. Low impedance 'phones are also better driven from low impedance sources (see p53) so the admittedly very flat 101ohm [red trace, Graph 1] remains better suited to the 330kohm AW 800 M than a 32ohm headphone. The line frequency response is otherwise very flat and extended [black trace, Graph 1] reaching down to 3Hz–1dB and up to 100kHz/–0.62dB.

Within the 20Hz–20kHz audioband, distortion is very low indeed at just 0.00012–0.00035% (re. 0dBV), rising fractionally to 0.00075%/40kHz [see Graph 2, below]. Like other preamps with exceptional ultrasonic compensation, this suggests the EC 4.8 MKII will avoid the in-band IMD that might otherwise be caused by the hump of requantisation noise accompanying DSD64 media, for example. The EC 4.8 MKII's maximum 21V balanced output is arguably excessive (the AW 800 M requires 1.7V to raise 2x300W/8ohm) but the intelligent layout achieves a >90dB stereo separation and ±0.05dB channel balance over the major portion of its digitally-governed ~100dB range. PM



**ABOVE:** Modular, dual-mono design of the EC 4.8 MKII is clear with the AC input and logic PCB [right] flanked by separate L/R audio PCBs [left] each with dedicated toroidal PSU transformers [top left]

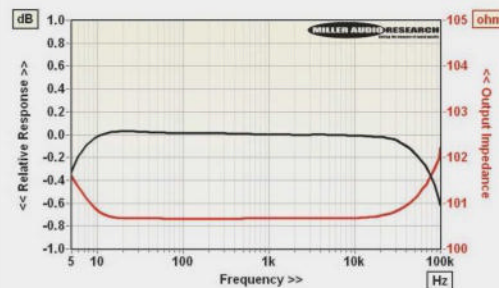
performance, the amplification driving the big speakers to deliver real scale and presence. This is repeated with the Merton College, Oxford/Britten Sinfonia recording of Vaughan Williams' 'Te Deum', from the recent *Orchestral Anthems* release [Delphian DCD34291], where the appeal of the soaring choral voices in the reverberant church space of All Hallows', Gospel Oak, is more than matched by the drama and power of the orchestra. It's a wonderfully detailed and uplifting sound, and the Electrocompaniet duo thrives on it.

The system flows beautifully through the Hallé/Barbirolli

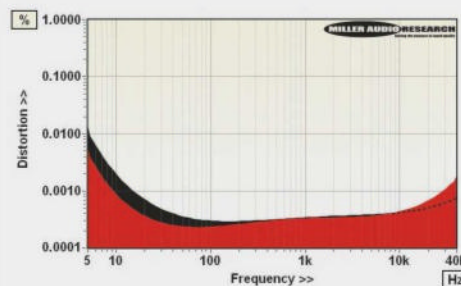
**BELOW:** A bridgeable dual-mono amp, the AW 800 M employs 16 pairs of transistors on each heatsink [left]. Each PSU has a screened transformer [right] and 10x10,000µF / 100V caps [centre]

performance of 'The Walk To The Paradise Garden', from *Delius: Orchestral Works* [Warner Classics 9029519214; 96kHz/24-bit]. This recording, now old enough to get its bus pass having been released in 1957, has an attractive 'of a piece' sound to it, rather than attempting to spotlight everything, all at once. This Electrocompaniet pre/power responds so well to this kind of production: it remains easy to hear the various performances contributing to the whole, but it's just as easy to get carried away in the lovely, rich sweep of the music.

But will this amplifier rock and slam? Oh yes... playing the extended



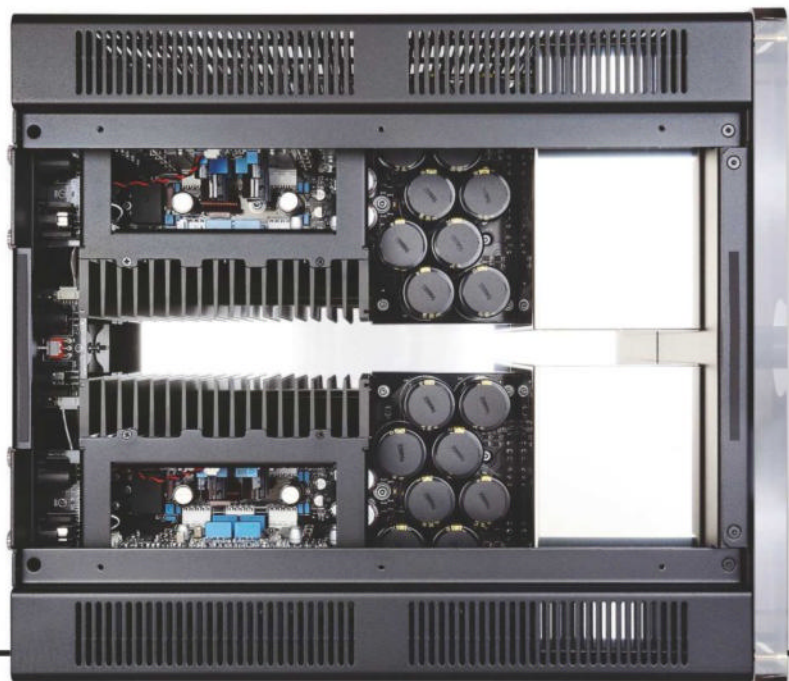
**ABOVE:** Balanced line frequency response (black) and output impedance (red) at 0dBV



**ABOVE:** Distortion versus extended frequency at 0dBV (Balanced in/out; left, black; right channel, red)

## HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD, 47kohm)	21Vrms (Balanced)
Maximum input level (<1% THD)	>12Vrms (Balanced)
Output impedance (20Hz–20kHz)	101ohm (Balanced)
Freq. response (20Hz–20kHz/100kHz)	+0.03dB to –0.02dB / –0.62dB
Input sensitivity (re. 0dBV)	574mV (Balanced)
A-wtd S/N ratio (re. 0dBV)	92.5dB
Distortion (20Hz–20kHz re. 0dBV)	0.00012–0.00035%
Power consumption	22W (1W standby)
Dimensions (WHD) / Weight (total)	470x80x372mm / 11.3kg



# LAB REPORT

## ELECTROCOMPANIET AW 800 M



**ABOVE:** The preamp has two balanced (XLR) and three single-ended (RCA) ins, a line/rec out, and one balanced (XLR) output per side. **BELOW:** Power amp has switchable stereo/bridged mono inputs with daisy chain outs, all on XLRs. Two sets of 4mm speaker binding posts are offered per channel

mix of 'Oumma Alaresso', from the 2008 remaster/re-release of Thompson Twins' debut album *A Product Of...* [Edsel EDSD 2026], the multiple percussion lines are delivered crisply, the bass has both scale and serious impetus, and the vocals enjoy fine projection. Yes, it's undeniably a period piece, but with everything this Electrocompaniet duo brings, plus the new-found definition of the B&W 801 D4 Signatures, it's a riotous, attention-grabbing track.

### FITS AND STARTS

Similarly, with the complex mixes of *To The Moon And Back*, the tribute album to composer and musician Ryuichi Sakamoto [Milan 19658737982], the amplification delivers an insightful, detailed view of the music, from the lightweight Electro Youth take on 'Merry Christmas Mr Lawrence' to David Sylvain's heartfelt 'Grains' and the just plain odd Otomo

Yoshihide remodel of 'With Snow And Moonlight'. That last track is all juddering electronica, fits and starts and switch-thumps – certainly not an 'easy' listen, even for die-hard fans of Sakamoto, but an

**LEFT:** Generic IR remote caters for input selection and volume here but has the facilities to service all Electrocompaniet products, now and in the future!



intriguing one in the hands of this accomplished Norwegian pre/power.

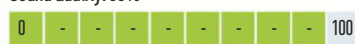
### GLORIOUS POWER

Push the limits of the amp with the dramatic 'A Call To Arms', which opens the James Horner score for the 1989 film *Glory* [La-La Land Records; LLLCD 1560], and it pulls together the angelic high trebles of The Boys Choir of Harlem and the room-shaking bass of the orchestration to spine-tingling effect. The consistent sense of effortless power that just keeps on giving is undiminished by playing this demanding track at high levels. But then that's what this remarkable power amplifier – and its preamp partner – brings to everything played: effortless enjoyment. 🎧

### HI-FI NEWS VERDICT

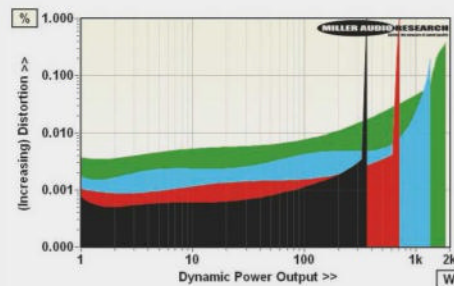
There are larger high-end power amps, and more than a few that are smaller, just as there are many that cost more. Yet, the sheer flexibility of the Electrocompaniet AW 800 M is hard to beat. Use it in stereo, then upgrade to mono if you wish, and add the partnering preamp for a big-hearted, refined sound. This system is an excellent buy, capable of a hugely entertaining listen with almost any music.

Sound Quality: 88%

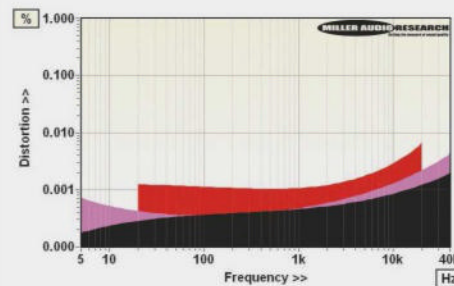


Rated at 300W/8ohm per channel in its single chassis/stereo guise, Electrocompaniet's flagship power amplifier eases past its specification at 2x320W/8ohm and 2x580W/4ohm with 364W, 714W, 1352W and 1854W available to support transient peaks (all re. 1kHz/10msec<1% THD) into 8, 4, 2 and 1ohm loads, respectively. Both the 2ohm and 1ohm figures are limited by onboard over-current protection [see Graph 1, below] but the AW 800 M's 43.1A capability is more than sufficient to buffer its (voltage) output into the most difficult of speaker loads. More power, but no more current, is available into 8/4ohm loads when the AW 800 M is operated in bridged/mono mode [see boxout, p61]. In stereo mode, distortion is very low right from switch on, the amp achieving 0.0003% at 1kHz/10W with the heatsinks at ambient (20°C), increasing to just 0.0007% after 30mins (55°C).

Versus power, distortion increases very gently from a low 0.00035% between 1-10W up to 0.001%/100W and 0.0029% at the rated 300W (all re. 1kHz/8ohm). Versus frequency the trend is also impressively uniform – just 0.00035-0.0021% at 10W from 20Hz-20kHz – with no abrupt jump in THD through the high treble [see Graph 2, below]. Gain is a sensible 29.4dB, bringing the total pre/power gain to a very useable +34.2dB via its balanced XLR connections, and noise is very low, yielding an impressively wide 95.8dB A-wtd S/N ratio (re. 0dBV). The response is flat to tight -0.5dB limits from 1Hz-45kHz/8ohm but Electrocompaniet's claim for a super-wide '>1000' damping factor could not be verified – the amplifier's 0.013-0.047ohm output impedance gives closer to >600 at bass frequencies, which is still a fine result. PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 43.1A



**ABOVE:** Distortion versus frequency versus power output (1W/8ohm, black; 10W, pink; 100W, red)

### HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	320W / 580W
Dynamic power (<1% THD, 8/4/2/1ohm)	364W/714W/1352W/1854W
Output imp. (20Hz-20kHz/100kHz)	0.013-0.047ohm / 0.36ohm
Freq. resp. (20Hz-20kHz/100kHz)	+0.0dB to -0.15dB/-1.6dB
Input sensitivity (for 0dBV/300W)	96mV / 1700mV
A-wtd S/N ratio (re. 0dBV/300W)	95.8dB / 120.5dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.00035-0.0021%
Power consumption (Idle/Rated o/p)	180W / 945W (1W standby)
Dimensions (WHD) / Weight	406x292x488mm / 55kg