



COPLAND

CTA 301 Purity from the Start

The CTA 301 can pair with either of Copland's power amplifiers, namely the CTA 501 rated at 30 watts or the new CTA 504 rated at 50 watts per channel.

The elegant slim-line appearance of this pre-amplifier belies its feat of engineering within. Built to provide quality sound for years to come, the consumer could not ask for a better guarantee of long lasting pleasure from a valve pre-amplifier.

The selectors on the front panel are remotely controlled by an internally mounted bank of relays to avoid interference in the switching. Ultra sensitive gold plated palladium relays have been selected for the purpose. The passive phono stage has been made suitable for both moving magnet and high output moving coil.



All power supplies are decoupled, DC regulated, and fully protected against voltage overload. Considerable attention has also been given to avoid any overload on high frequency signals, through careful selection of the operation points and the use of a high supply voltage on each stage of the amplifier.

The CTA 301 is the first Copland product to feature soft start, guaranteeing a longer life and greater reliability of the components.

Careful attention has been given to the minutest detail in this pre-amplifier, using top quality components and the finest valves to ensure a purity of signal that will flow fluently and effortlessly to the listener's ear.

SPECIFICATIONS		Copland CTA 301
Frequency Response:	High Level	5Hz - 100 kHz +/- 1 dB 2Hz - 200 kHz - 3 dB
	Phono +/- 0,5 dB of RIAA	20 Hz - 20 kHz
	Rated 2V.	Max 50V into 47K ohms
Output voltage:	Phono	Less than 0,05% (2V 1 kHz)
T.H.D.	Line	Less than 0,01% (2V 1kHz)
Input sensitivity:	Phono	2,0mV (2V output)
	Line	170mV (2V output)
Input impedance:	Phone	47K ohms and 120 pF
	Line	75K ohms
Output impedance:		2,8K ohms
Phono overload:		150mV
S/N ratio (IHF weighted, shorted input)	Phono stage	76 dB
	Line stage	90 dB
Phase	Lineout:	Inverting from all inputs
	Tapeout:	Non inverting from all inputs
Vacuum tubes:		The RIAA section is composed of 2 matched pairs of E83cc double triodes in Shunt Regulated Push Pull (SRPP) The line level uses an E82cc double triode in each channel.
Power Consumption:		35 W
Power Supply:		Voltage switchable, tapings on transformer 110-240v (240 volts UK)
Dimensions:		430 (w) x 125 (h) x 375 (d) mm
Weight:		8 kg

CTA 504 Power to Purity

The CTA 504, rated at 50 watts per channel, panders to the needs of power lovers and true audiophiles alike. The amplifier is driven in ultra linear form very close to class A to gain maximum sonic performance.

The front panel features two brushed silver alloy control knobs, one of which constitutes a switchable relay that allows the user to run the amplifier in either tetrode for the power and scale or triode for the ultimate in resolution of detail.

Copland's designer, Ole Möller, has paid particular attention to the transformer and design of the power supplies. The mains transformer is supplied with both magnetic and static shields to minimise undue leakages. All components are rated to cope with the surge at switch-on which peaks at 500 volts.



There are seven power supplies in total. All supplies are decoupled by high voltage polypropylene film capacitors to smooth the power supply and maintain a negative bias on the valves at all times, so preventing excessive voltage from entering the valves to ensure their long life and stability.

High output voltage and low impedance in the line input stage ensure easy driving of the output valves, promoting strong dynamics throughout the whole amplifier.

With the emphasis on sound quality and reliability, the CTA 504 achieves a performance second to none. The increased power output allows for a wide flexibility in the choice of speakers whilst the triode switching facility cannot fail to lure the listener towards the optimum performance.

SPECIFICATIONS	Copland CTA 504
Output power:	50 W per channel (Tetrode) 26 W per channel (Triode)
T.H.D.	Below 0,08% (1 kHz 1W) Below 1% (1kHz 50W)
Frequency Response:	5 - 65 kHz - 3 dB
Power Bandwidth:	8 - 45 kHz - 3 dB
S/N ratio	100 dB (IHF – A weighted input-shorted)
Input sensitivity :	1,5V
Input impedance:	250K ohms
Output impedance:	4 and 8 ohms
Negative Feedback:	16 dB
Phase:	Non inverting
Vacuum tubes:	All valves are hand selected and identically matched. Input stage and phase splitters: - 5 x double triodes E83cc, operating on regulated push/pull. Output stage: - 2 pairs of 6550, operating in push/pull, ultra linear.
Grounding:	Separated grounding on power supply. Signal/chassis connected to signal ground.
Dimensions:	430 (w) x 175 (h) x 375 (d) mm
Weight:	25 kg
Power Consumption:	280 W
Power Supply:	Voltage switchable, tapings on transformer 110-240v (240 volts UK)

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Frequency Response:	High Level	5Hz - 100 kHz +/- 1 dB 2Hz - 200 kHz - 3 dB
	Phono +/- 0,5 dB of RIAA	20 Hz - 20 kHz
Output voltage:	Rated 2V.	Max 50V into 47K ohms
T.H.D.	Phono	Less than 0,05% (2V 1 kHz)
	Line	Less than 0,01% (2V 1kHz)
Input sensitivity:	Phono	2,0mV (2V output)
	Line	170mV (2V output)
Input impedance:	Phone	47K ohms and 120 pF
	Line	75K ohms
Output impedance:	2,8K ohms	
Phono overload:	150mV	
S/N ratio (IHF weighted, shorted input)	Phono stage	76 dB
	Line stage	90 dB
Phase	Lineout:	Inverting from all inputs
	Tapeout:	Non inverting from all inputs
Vacuum tubes:	The RIAA section is composed of 2 matched pairs of E83cc double triodes in Shunt Regulated Push Pull (SRPP) The line level uses an E82cc double triode in each channel.	
Power Consumption:	35 W	
Power Supply:	Voltage switchable, tapings on transformer 110-240v (240 volts UK)	
Dimensions:	430 (w) x 125 (h) x 375 (d) mm	
Weight:	8 kg	

CTA 504 Power to Purity

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The front panel features two brushed silver alloy control knobs, one of which constitutes a switchable relay that allows the user to run the amplifier in either tetrode for the power and scale or triode for the ultimate in resolution of detail.

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There are seven power supplies in total. All supplies are decoupled by high voltage polypropylene film capacitors to smooth the power supply and maintain a negative bias on the valves at all times, so preventing excessive voltage from entering the valves to ensure their long life and stability.

High output voltage and low impedance in the line input stage ensure easy driving of the output valves, promoting strong dynamics throughout the whole amplifier.

With the emphasis on sound quality and reliability, the CTA 504 achieves a performance second to none. The increased power output allows for a wide flexibility in the choice of speakers whilst the triode switching facility cannot fail to lure the listener towards the optimum performance.

SPECIFICATIONS	Copland CTA 504
Output power:	50 W per channel (Tetrode) 26 W per channel (Triode)
T.H.D.	Below 0,08% (1 kHz 1W) Below 1% (1kHz 50W)
Frequency Response:	5 - 65 kHz - 3 dB
Power Bandwidth:	8 - 45 kHz - 3 dB
S/N ratio	100 dB (IHF – A weighted input-shortcd)
Input sensitivity :	1,5V
Input impedance:	250K ohms
Output impedance:	4 and 8 ohms
Negative Feedback:	16 dB
Phase:	Non inverting
Vacuum tubes:	All valves are hand selected and identically matched. Input stage and phase splitters: - 5 x double triodes E83cc, operating on regulated push/pull. Output stage: - 2 pairs of 6550, operating in push/pull, ultra linear.
Grounding:	Separated grounding on power supply. Signal/chassis connected to signal ground.
Dimensions:	430 (w) x 175 (h) x 375 (d) mm
Weight:	25 kg
Power Consumption:	280 W
Power Supply:	Voltage switchable, tapings on transformer 110-240v (240 volts UK)

CTA 501 Singular Power

The CTA 501 power amplifier is based on the design and composition, which already has proven its outstanding performance in the CTA 401 integrated amplifier.

All components are carefully selected. The audio stages are composed exclusively of polypropylene capacitors and metalfilm resistors. The vacuum tubes, chosen for the low level section, are the E82CC and E83CC, which is a superior and highly reliable professional version, of the more common used ECC82/83 tubes.



The high input sensitivity of the CTA 501 allows a CD player, to be connected directly through a selector on the front panel to the level control in the first stage of the amplifier. In order to ensure maximum performance from the CD media, we highly recommend this feature, which eliminates any coloration in sound introduced by a preamplifier.

Copland CTA 501 reveals great openness over the entire frequency range. The sound stage is spacious with depth of image. There is an excellent definition of the individual instruments.

SPECIFICATIONS	Copland CTA 501
Output power:	2 x 30 W
Output impedance:	4 & 8 ohms
Line input impedance:	100 k ohms
Line sensitivity:	320 mV
Power bandw.:	10 Hz - 25 kHz - 3 dB
Frequency Response:	5Hz - 35 kHz - 3 dB
Harmonic distortion:	better than 0,1%
Hum and noise: Line	better than 100 dB
Phase:	Non inverting
Vacuum tubes:	All valves are hand selected and identically matched. Input stage and phase splitters: - 1 x E83cc, 2 x E82cc, operating on regulated push/pull. Output stage: - 2 pairs of EL34, operating in push/pull, ultra linear.
Grounding:	Separated grounding on power supply. Signal/chassis connected to signal ground.
Power Consumption:	210 watts
Dimensions:	430 (w) x 175 (h) x 375 (d) mm
Shipping weight:	23 kg



CTA 401 in Concert

The COPLAND CTA 401 Integrated Valve Amplifier is the result of careful research and development, combining the best features of classical construction with the latest technology in circuit design.

All amplifying stages are composed by triodes. Particular attention have been given to avoid overloading on high frequency signals; this has been achieved by carefully selecting the operations points and the usage of high supply voltage on each stage in the amplifier.

The current capacity of the CTA 401 power supply and output transformers is fully sufficient for a 100 W output power.

However, with operation conditions set for minimum variation of plate and screen current in the output stage, excellent performance is obtained with very low overall feedback.



Special care has been given to the design of the output transformers. Perfect symmetry in resistance and inductance of the coils, combined with segmented windings and low distortion and high stability through the entire bandwidth of audible frequencies.

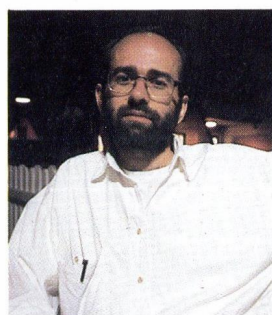
All audio stages are comprised exclusively of polyester or polypropylene capacitors and metal film resistors, to provide superior and reliable sound reproduction.

SPECIFICATIONS	Copland CTA 401
Output power:	2 x 30 W
Output impedance:	4 & 8 ohms
Phono Input impedance:	47 k ohms
Phone Sensitivity:	3 mV
Line input impedance:	100 k ohms
Line sensitivity:	320 mV
Power bandw.:	10 Hz - 25 kHz - 3 dB
Frequency Response:	5Hz - 35 kHz - 3 dB
Harmonic distortion:	better than 0,2%
Hum and noise: Line	better than 90 dB
Hum and noise: Phono	better than 70 dB
Phase:	Non inverting
Vacuum tubes:	All valves are hand selected and identically matched. Input stage and phase splitters: - 3 x double triodes E83cc, 2 x E82cc operating on regulated push/pull. Output stage: - 2 pairs of EL34, operating in push/pull, ultra linear.
Grounding:	Separated grounding on power supply. Signal/chassis connected to signal ground.
Power Consumption:	210 watts
Dimensions:	430 (w) x 175 (h) x 375 (d) mm
Shipping weight:	23 kg



Deep in the heart of Våxjö region, a wild country of wooded lakeland and beautiful landscapes, lies the spotless high-tech factory of Xena. The building itself has been converted from an old lumbermill, yet these stone walls house an assembly line which takes pride in its state of the art circuitry – an ideal setting for inspiring perfection.

Copland was founded in Copenhagen during the mideighties by Ole Möller, the designer. His pre-power combination received instant acclaim throughout Europe, for its build quality and reliability. Since 1990 the sales and production have been handled by XENA AUDIO AB in Sweden. A company that specialises in handcrafted electronics.



The valve amplifiers and Copland itself are the brain-child of the young Danish designer, Ole Möller. Formally with Ortofon and musically trained during his youth, Ole is committed to drawing the optimum performance from his creations, blending technology with artistry in pursuit of his goal.

COPLAND



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