



ELECTROCOMPANIET

*If music really matters™*



AW 300 M  
*Mono Power Amplifier*

Owner's  
Manual





The lightning flash symbol within a triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.




The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Marking by the “CE” symbol (shown left) indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community.



1. Read all the safety and operating instructions before operating this product.
2. Keep these instructions for future reference.
3. Adhere to all warnings on the product and in the operating instructions.
4. Follow all operating and use instructions.
5. Do not use this product near water.
6. Clean only with dry cloth. Clean only the outside of the product.
7. Only use attachments/accessories specified by the manufacturer.
8. Replace only with same type fuse.
9. Do not block or cover any ventilation openings. Install in accordance with the manufacturer's instructions. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.
10. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
11. Before connecting the AC power supply cord to the product, make sure the voltage selector switch or switches correspond to the local electrical supply. If you are unsure of your electrical supply voltage, contact your local power supply company. The acceptable power input range is either 100-120 VAC or 200-240 VAC 50/60 Hz.
12. Do not defeat the safety purpose of the polarized or grounding-type plug. US power plugs (NEMA5-15) only: A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
13. Protect the power supply cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product. Do not pull on the power supply cord.
14. The mains plug of the power supply cord shall remain readily operable.
15. Unplug this product during lightning storms or when unused for long periods of time.
16. To completely disconnect this product from the mains, disconnect the power supply cord plug from the receptacle.
17. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.
18. To reduce the risk of electrical shock, do not open the product. Refer all disassembling to qualified service personnel.
19. To reduce the risk of fire or electric shock, this product should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this product.
20. No naked flame sources, such as lighted candles, should be placed on the product.
-  21. Any terminals marked with the preceding symbol are HAZARDOUS LIVE and any wiring connected to these terminals must be installed by an INSTRUCTED PERSON or with ready-made leads or cords.
22. Condensation may occur when moving the product from a cold to a warm location, or vice versa. Should this occur, the product may not operate properly. In such a case do not apply power to the product, instead let the product sit at room temperature for a few hours to facilitate moisture evaporation.



# Welcome to the world of Electrocompaniet!

We thank you for choosing an  
Electrocompaniet high-end product.

At Electrocompaniet we are relentlessly  
focused on developing audio equipment  
that is capable of bringing the fabulous  
experience of the concert hall into the very  
heart of your home.

Our aim when developing and testing  
new products is to ensure that the wonder-  
ful richness of tone and every nuance of  
feeling and emotion of a piece of music is  
delivered to you just as the artist intended.

We continually strive to give you the very  
best musical listening experience available  
whatever your preferred musical genre.

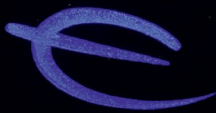
Sincerely yours,  
The Electrocompaniet team





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ELECTROCOMPANIET



AW 300 M



Immediately upon receipt of the AW 300 M, inspect the packaging for possible damage during shipment. The packaging has been designed to provide the safest possible protection for transport of your power amplifier.

## The contents of the carton

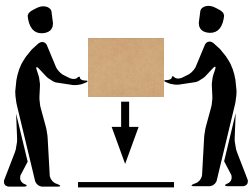
Two Electrocompaniet AW 300 M Mono Power Amplifiers

Accessories each amplifier:

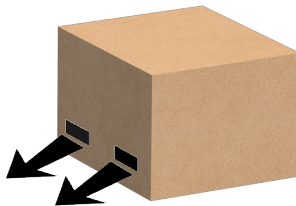
- Inspection card
- Owner's manual
- Velvet cover
- One pair of gloves
- Spare fuses 6,3 AT and 10 AT
- US power cord
- European power cord

## Unpacking procedure

The AW 300 M is heavy and at least two people are required to lift the amplifiers. Unpack the unit carefully. Save all packaging materials for future shipment.



1. Place the box on a flat and stable surface.



2. Take off the 4 plastic handles, by dragging the edge of the handle towards you.



3. Lift the top cover up and unfold the bottom part of the box.



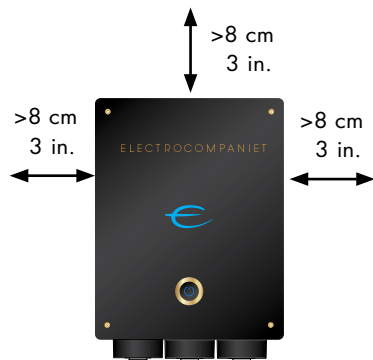
## Placement

The AW 300 M relies on free airflow from the bottom ventilation holes and into the side ventilation holes that must be allowed to exit through the top panel ventilation holes. Under no circumstance should these ventilation holes be blocked. The amplifier can only be operated if placed in the horizontal position on the feet, which will ensure correct airflow through the chassis. Do not place the amplifier on a thick carpet or other material that prevents free airflow from below. Use a stand to lift the amplifier from the floor instead.

Do not stack or place the AW 300 M near or on top of other heat sources, such as radiators or other amplifiers. Placement in a closed cabinet with restricted airflow to the rear or front must be avoided. Placement in a rack should be avoided unless ample free space is available above the top, and both sides have unrestricted airflow. Avoid exposure to direct sunlight for prolonged time during operation.

Make sure to leave at least 8 cm (3 inches) of free space at the top, the sides and the rear. We recommend at least 15 cm (6 inches) of free space above the top.

Violating these guidelines may result in overheating and possibly shut down to prevent damage.





## How to avoid damage

Do not under any circumstances connect or disconnect equipment when power is turned on. The design of the XLR plug generates a huge transient when inserted. Connecting or disconnecting equipment with the power on can result in severe damage to both speakers and amplifier.

## Speaker output

Connect your speakers to the output labeled SPEAKER OUTPUT. The speaker terminals will accept banana, spades and stripped speaker cables. Make sure to not mix the left and right channel and also make sure that the positive terminal on the speaker is connected to the positive terminal on the AW 300 M.

Be careful when connecting your speakers so that the speaker outputs are not shorted in any way, neither to the chassis or each other. Switch the amplifier off before connecting or disconnecting the speaker cables.



**WARNING:** Any terminal marked with the preceding symbol are HAZARDOUS LIVE and any wiring connected to these terminals must be installed by an INSTRUCTED PERSON or with ready-made leads or cords.



**WARNING:** The two red colored terminals have voltage swing relative to ground, and must never under any circumstances be connected to an input that is directly connected to ground.

## Connecting to AC mains

The voltage select switches are located under the lid above the mains input. Use a flat screwdriver to slide them left to right, or vice versa. Always slide them in the direction that will hide the printed text on the switch. Do not push in with excessive force. Only use force in the left or right direction.



**WARNING:** Before connecting the AC mains supply, check that the mains voltage selector is set correctly according to the voltage supply in the area where the AW 300 M will be used.



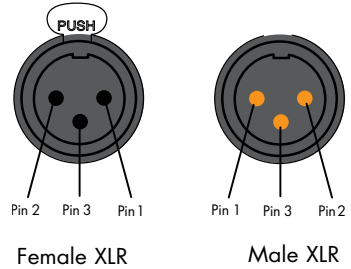
Set both voltage select switches to setting 115 if the mains voltage is in range 100 to 120 VAC.

Set both voltage select switches to setting 230 if the mains voltage is in range 200 to 240 VAC

Connect the included AC mains supply cord to the power inlet labeled MAINS INPUT on the bottom rear of the amplifier. The AW 300 M will enter standby when power is present, and the mains switch is switched to the ON position. Please set the mains switch in the ON position only when all connections are ready.

## Balanced XLR operation

The AW 300 M is designed to be used with balanced audio sources. Balanced XLR interconnect cables with ground on pin 1, positive (hot) on pin 2 and negative (cold) on pin 3 must be used. Use the parallel wired LINK output as an optional connection to other audio equipment.



## Single-ended operation

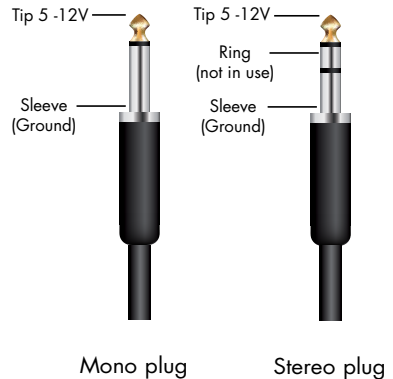
Use RCA to XLR adapter ECP5XLR for connecting single-ended sources. Connect the XLR adapter to the XLR input of the AW 300 M, and connect the RCA interconnect to the input of the XLR adapter. The AW 300 M will operate as normal also with single-ended sources. The XLR adapter may be purchased separately from your Electrocompaniet dealer.



XLR adapter  
(ECP5XLR)

## Trigger input/output

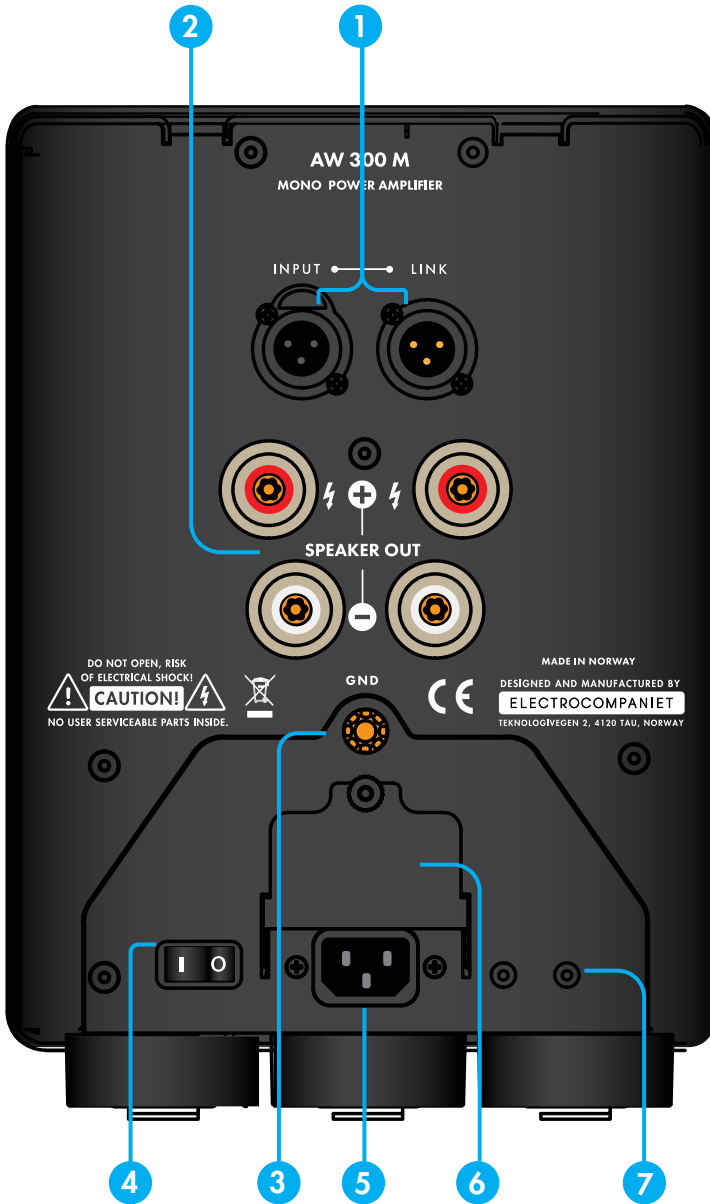
Your AW 300 M is equipped with a standard 12 V trigger input port. This port can be used for automatically switching your AW 300 M in and out of standby. Connect the trigger input port to any controlling equipment with a trigger output port. The AW 300 M will power up (leave standby) when a voltage in the range of 5-20 V (AC or DC) is detected on the trigger input port and will remain powered on for as long as the voltage is present on the trigger input port. If Auto Power Down is enabled, the AW 300 M will enter standby even if the trigger voltage is present.



The trigger output port is internally wired in parallel with the input port and allows extension of the trigger chain to other equipment. The AW 300 M will not actively drive the output port. Use a 3,5 mm mono or stereo jack for connecting to the trigger input and trigger output ports. Current draw on the input port is approximately 3 mA.



# Rear panel connections



**1 Mono balanced input**

Connect the left or right channel of the source to this input. The other channel must connect to the same input on another AW 300 M. Pin 2 is positive/hot, pin 3 is negative/cold, pin 1 is ground. Use the parallel wired LINK output as an optional connection to other audio equipment.

**2 Speaker output terminals**

Connect the speaker to these terminals. Terminals in red color are positive and are internally connected. Terminals in white color are negative and are internally connected. Connect the positive speaker terminal to either of the red colored terminals, and the negative speaker terminal to either of the white colored terminals.

**3 Ground terminal**

Optional grounding point that can be used to ground your amplifier to a common ground source in your system.

**4 Mains power switch**

Switches the mains input voltage on/off. Set the switch in ON position when operating the AW 300 M from the standby button or the 12 V trigger input. Set the switch in OFF position to completely turn off the AW 300 M from the mains.

**5 Mains power input**

Connect 115/230 VAC mains voltage input using one of the supplied power cords.

**WARNING:** Set the voltage select switches according to the mains voltage in use.

**6 Fuse and voltage select switches**

Fuses and voltage select switches are located under this lid. Unplug the power cord and unscrew the thumb nut to open the lid. Turn the top of the fuse holders counterclockwise using a flat screwdriver to access the fuses.

**WARNING:** Replace only with same type fuses.

**7 Trigger input and output**

Connect a 12V trigger source to the input port. The output port is internally wired in parallel and allows extension of the trigger chain to the next amplifier or device.

**Note:** The trigger input will only operate if the mains switch is in the ON position.



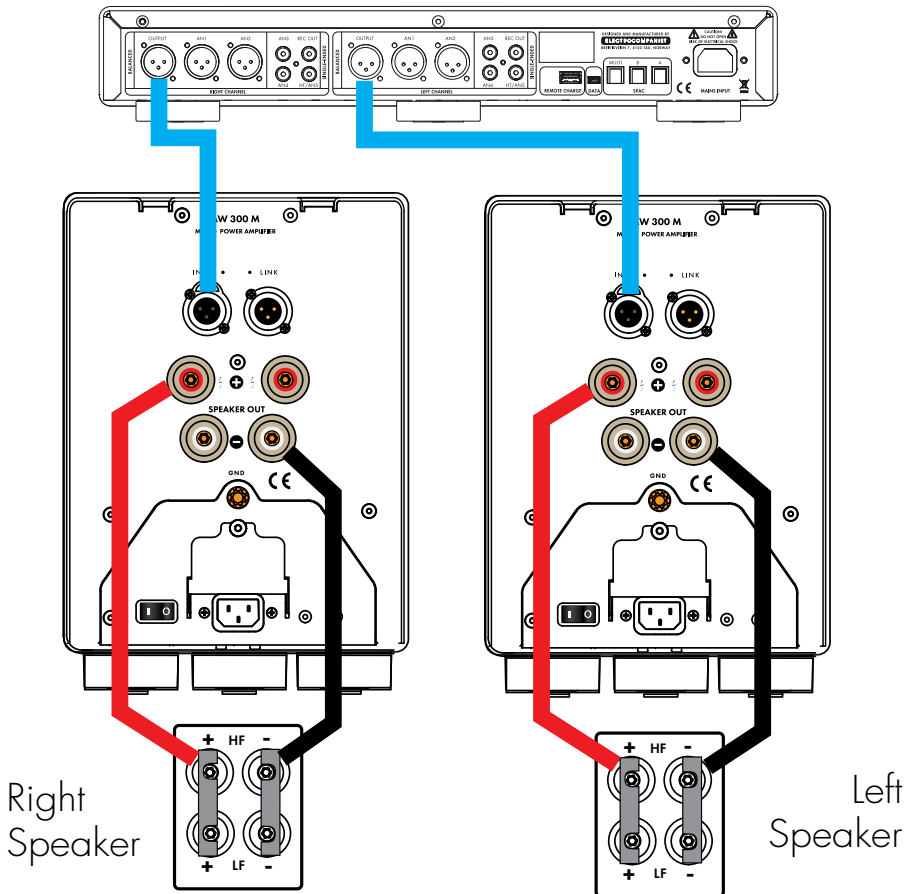
Mono operation mode requires one AW 300 M to drive one speaker.

Configure both amplifiers as follows:

- Set the amplifiers in standby or switch off mains power on the rear panel.
- Connect the source to the XLR input.
- Connect the speakers as shown in Illustration 1 below.

Illustration 1

Preamplifier



Bi-wiring operation requires one AW 300 M to drive one speaker with an extra set of speaker cable.

Configure both amplifiers as follows:

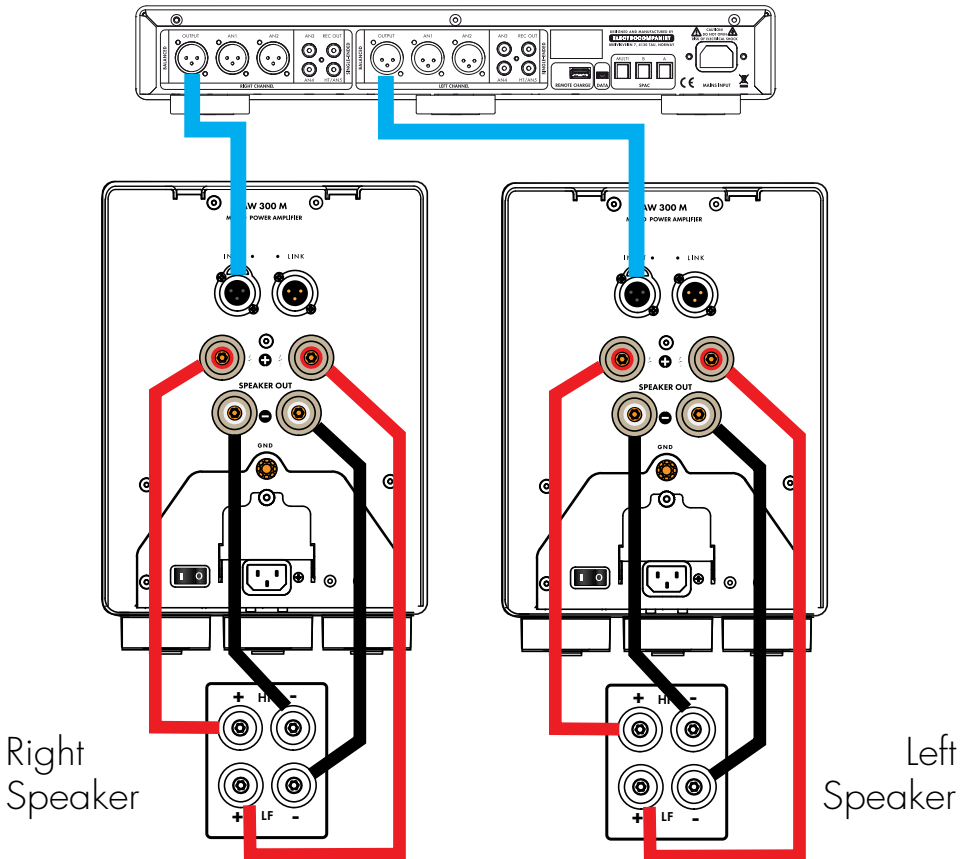
- Set the amplifiers in standby or switch off mains power on the rear panel.
- Connect the source to the XLR input.
- Connect the speakers as shown in Illustration 2 below.



**WARNING:** Any jumper between the speaker terminals should be removed.

Illustration 2

Preamplifier





## Bi-amping operation

Bi-amping operation requires two AW 300 M and one extra XLR cable to drive one speaker with an extra set of speaker cable.

Configure the amplifiers as follows:

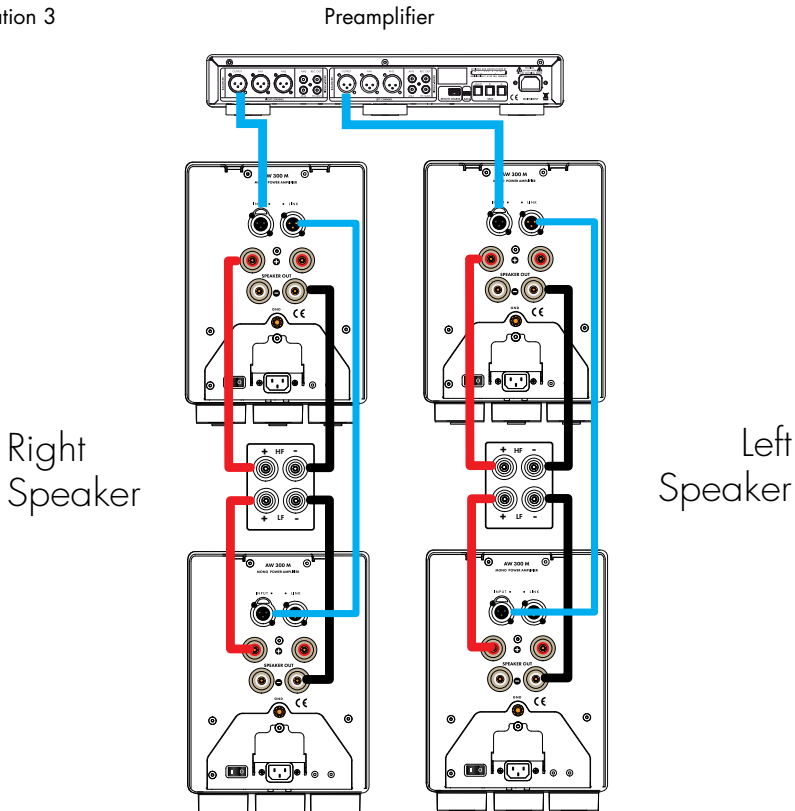
- Set all amplifiers in standby or switch off mains power on the rear panel.
- Connect the source to the XLR input of the top amplifiers.
- Connect a standard XLR cable from LINK on the top amplifiers to the XLR input on the bottom amplifiers.
- Connect the speakers as shown in Illustration 3 below.



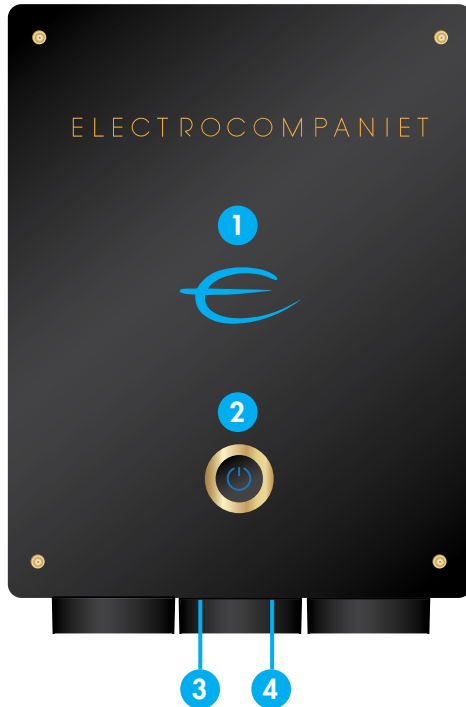
**WARNING:** Any jumper between the speaker terminals must be removed in this configuration, or severe damage may be inflicted on the amplifier.

Do not place the amplifiers directly on top of each other. Use a rack to ensure free airflow for adequate cooling instead. Or place them at least 15 cm (6 inches) apart on the floor or on stands.

Illustration 3







## 1 Logo indicator

On when amplifier is active and operational.

## 2 Standby button

Pressing this button (center) will toggle the AW 300 M in and out of standby. There is a 10 second delay in between repeated presses to ensure proper power up cycles.

Red standby symbol - the AW 300 M is in standby.

Blue standby symbol – the AW 300 M is powered up and active.

Blinking standby symbol – the AW 300 M is in error mode. Please see troubleshooting page for more information.

## 3 Auto power down button

This button is located on the bottom side of the AW 300 M offset left one cm from the center, approximately four cm in from the front. Use your index finger to operate the button. The button is in released state when it protrudes

the bottom surface the most.

Pressed - Auto Power Down is disabled.

The AW 300 M will not enter standby automatically.

Released - Auto Power Down is enabled.

The AW 300 M will automatically enter standby if no input signal is detected for 30 minutes.

Auto Power Down will initiate a shut down even if the trigger input is active.

## 4 Front illumination button

This button is located on the bottom side of the AW 300 M offset right one cm from the center, approximately four cm in from the front. Use your index finger to operate the button. The button is in released state when it protrudes the bottom surface the most.

Pressed - Front illumination is turned off.

Released - Front illumination is turned on.



## Input - output

- Balanced input, gold plated XLRs
- Double set of high-quality speaker binding posts
- 12 V trigger input – output

## Power supply

- 800VA toroidal transformer, electrostatically and magnetically shielded
- Built in DC and high frequency mains filtering
- Fully independent power supplies for input and output stages
- Voltage regulated input stages
- Total of 110000 uF power supply filtering
- Hyper fast, soft recovery rectifier diodes throughout
- Careful circuit layout to keep ground reference free of rectifying currents
- < 0.5W standby consumption

## Amplifier circuitry

- Fully discrete, very high bandwidth/high slew-rate circuitry
- Pure class A input circuitry
- Direct coupled – no capacitors in signal path
- Utilizing JFET and bipolar transistors, low noise metal film resistors and film capacitors
- Electrocompaniet high open loop bandwidth topology
- Total of 16 pcs. 15A, 60MHz bipolar output transistors
- High current gain output driver stage
- Short circuit/high output current, over temperature and DC fault protection
- Vastly improved internal ground reference with 1400 mm<sup>2</sup> cross section
- Controlled, stable and symmetric clipping behavior

## General

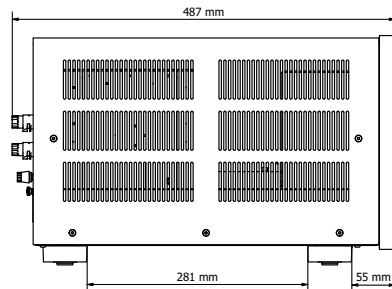
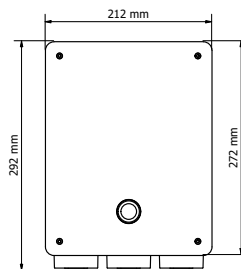
- Switchable 115VAC/230VAC mains voltage
- On/off switchable auto power down
- On/off switchable feature lighting
- Stiff all steel vibration-controlled chassis with internal bracing
- Modularized build-up for easier servicing
- Heavy copper circuit boards
- Ground screw connection for external system grounding
- Soundcare® SuperSpikes™ by SEAS

The following technical specifications were measured on randomized test objects and are typical data. All measurements are made at 120 VAC / 240 VAC // 50 Hz / 60 Hz. Clipping point of the amplifier is set to a level where total harmonic distortion (THD) is 1 %.

Input impedance:	330 k $\Omega$
Frequency response (input filter active):	0.5 – 220 kHz
Frequency response (input filter disabled):	0.5 – 1.1 MHz
Voltage gain (mono, balanced input):	29 dB (x28)
Input-referred noise (20-20 kHz):	< 2 $\mu$ V
SNR (ref. 1 W/8 $\Omega$ load, 20-20 kHz):	95 dB
SNR (ref. full power output, 20-20 kHz):	120 dB
Slew-rate (input filter disabled):	140 V/ $\mu$ s
DC output voltage:	< 5 mV
THD+N:	0.0006 %
IMD:	< 0.001 %
Damping factor (8 $\Omega$ load):	> 1000
Power consumption standby:	< 0.5 W
Power consumption idle:	160 W

MONO rated output power:	
8 $\Omega$ load:	300 W
4 $\Omega$ load:	600 W
2 $\Omega$ load:	1000 W



Weight:	29 kg / 63.9 lbs
Height:	292 mm / 11.49 in
Width:	212 mm / 8.34 in
Depth:	488 mm / 19.21 in



\*Features and specifications are subject to change without further notice.



## Troubleshooting

Symptom	Indicator	Possible Cause	Corrective Actions
Nothing happens when pushing the standby button.	 No light	Mains switch on rear panel is in the OFF position.	Set mains switch in the ON position.
Nothing happens when pushing the standby button.	 No light	Mains fuse(s) blown.	1. Inspect fuses under lid. 2. Replace blown fuses and replace with same type. 3. Contact service if fuse blows again.
No sound.	 Steady on red	Amplifier in standby.	Power up amplifier by pressing the standby button.
No sound.	 Steady on blue	No input signal, wrong connections or settings.	1. Check that your source is on and playing. 2. Check the volume setting on your preamplifier or source. 3. Check the input selection on your preamplifier. 4. Check that the speaker terminals are correctly connected.
Amplifier shuts down after 30 minutes.	 Steady on red	Auto power down sets amplifier into standby if no input signal is detected for 30 minutes.	Disable Auto Power Down feature if this is unwanted behaviour.
Amplifier does not shut down from standby button.	 5 times	12 V trigger input is active.	Remove 12 V trigger input.
Amplifier shuts down with or without music playback.	 5 times per sec.	An overload fault or internal DC fault has occurred.	1. Remove shorted speaker output. 2. Reduce amplifier output load. 3. Make sure connected source has output DC voltage less than 50mV. 4. Press standby button to reset fault.
Amplifier shuts down with or without music playback.	 1 time per sec.	An internal overtemperature fault has occurred.	1. Improve ventilation. 2. Reduce amplifier output load. 3. Press standby button to reset fault.
Shuts down immediately at power up.	 5 times per sec.	Mains voltage is not set correctly.	1. Verify mains voltage settings. 2. Press standby button to reset fault.

Please contact Electromaniet service or your dealer if the experienced symptom is not resolved.



Your dealer will have all relevant information regarding service centers in your area, and will ensure that your unit is serviced with minimum delay. It is our general policy to have your unit returned to you within five working days. This is an average time and can vary locally, depending on the workload at that particular service station. If for some reason there are no service facilities available in your country, contact Electrocompaniet support first. If requested to do so by technical personnel, please ship the unit to the following address:

Electrocompaniet AS,  
Teknologiveien 2,  
4120 Tau,  
Norway

Web: [www.electrocompaniet.com](http://www.electrocompaniet.com)

### **Service department: support.electrocompaniet.com**

The end user is responsible for all shipping charges, insurance, re-import and duty charges. When shipping a product to the factory for service, always include the following:

1. A sales slip or other proof of purchase if repair is claimed under warranty.
2. A proforma invoice with value of goods, stating that the AW 300 M is returned to Norway for repair.
3. An accompanying letter describing faults, symptoms, or problems with the unit.
4. Always ship the unit in its original carton and packaging material to prevent damage in transit.

Electrocompaniet will not cover damages incurred in transit. If you require further information concerning the operation of the unit, or if you have any questions related to service, please do not hesitate to contact your dealer or your national distributor.

## International warranty

Our products sold outside Norway are warranted exclusively per the authorized Electrocompaniet dealer's or authorized distributor's warranty, and may or may not be the same from one region to another. For all inquiries about the terms and conditions related to the warranty offered in your country, please contact your Electrocompaniet authorized dealer or distributor.

## Product registration online

In order to register your product, please go to our website: [electrocompaniet.com](http://electrocompaniet.com). Get the latest updates and support in case you have some issues with our products.

## User manual updates online

An updated version of the user manual may be available online at the Electrocompaniet website. Occasional updates are needed to reflect new features added to the product since the user manual was printed.

## Care

Use a ultra-soft, dry cloth for cleaning the casing of the unit.

Never spray any solvent or liquids directly onto the unit as these may infiltrate the unit and damage the electronics.

A micro fiber cloth can be moistened with glass-cleaner if greasy fingerprints needs to be removed from the front plate or casing. Avoid temperature extremes, like direct sunlight or proximity to air conditioner units. Avoid damp, humid conditions.

**Do not use alcohol based cleaners.**

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DEALER  
STICKER  
HERE

LOCAL DEALER



**WARNING:** To avoid risk of fire or electric shock, do not expose the AW 300 M to rain or moisture. Verify line voltage before use. Do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel. The warranty is void if the product is tampered with by non-authorized personnel. Always use authorized Electrocompaniet service centers.



ELECTROCOMPANIET  
*If music really matters™*



Designed and manufactured in Norway

[www.electrocompaniet.com](http://www.electrocompaniet.com)

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