



Analog Domain Audio GmbH

ISIS M75D MK II

Integrated Audio Amplifier



The Isis M75D in Silver

Owner's manual

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Congratulations on your purchase!

The Isis M75D integrated amplifier employs state of the art proprietary technologies, yet has been designed to be simple, intuitive and reliable in use. We encourage you to read through this manual in its entirety to better understand and utilize its features.

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The technology inside

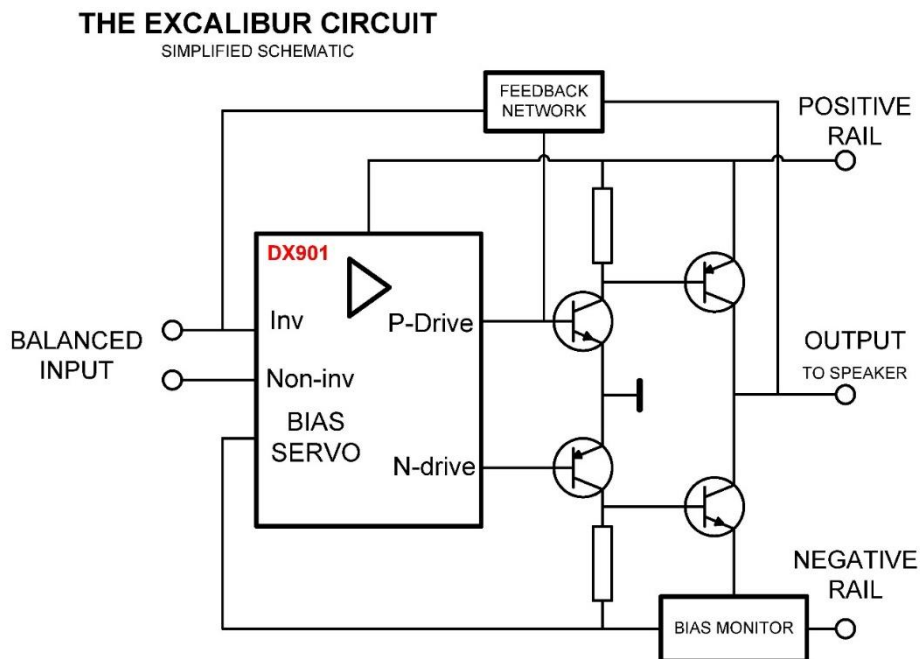
The Isis M75D is a precision, solid state linear amplifier, intended for amplifying audio frequency signals. It is the product of over 15 years of circuit refinement, aiming to escalate the quality of audio reproduction to the highest level of fidelity. The proprietary circuit technology combines high performance with high efficiency and high reliability.

The operating mode of the Isis M75D is Class AB+G. Efficiency is greatly enhanced by employing a tiered power supply with proprietary voltage management in the power stages, thus providing high output power while minimizing power waste and consequent heat. Build quality is to the highest standards, ensuring many years of reliable operation.

Excalibur and DXDrive™

The Isis M75D features an unconventional output stage topology which is superior to the ubiquitous emitter follower in many ways. We named this topology “The Excalibur”. While lucrative, this topology poses significant technical challenges if attempted with conventional bias control methods. The combination of the Excalibur with our proprietary DXDrive™ bias control enabled the use of this topology, achieving unprecedented performance and reliability.

The Excalibur topology needs very little bias current to achieve near Class-A performance, which in turn contributes to the overall efficiency and long life of components. The Isis M75D produces less heat in comparison to conventional amplifiers with similar ratings under matching conditions.



What sets the Excalibur topology apart from common designs are the virtually unlimited current output capability and the extremely low output impedance. Driving real world loudspeakers is where the Excalibur excels, providing as much current as the speaker requires. There are no “difficult” loads for the Excalibur. Peak output current has been intentionally limited only for safety and reliability.

Tiered power supply

The Isis M75D MKII features a tiered power supply. Two voltages of each polarity are provided to the power stages. The lower voltage is used in when the amplifier is idle or playing at moderate levels.

A management circuit continuously tracks the output signal and will momentarily switch the respective rail of the power stage to the higher voltage during a peak. The transition is seamless.

Symmetrical loading

In conventional designs, the power stages operate in phase and draw current from the same pole of the power supply during simultaneous transients. This may cause a significant voltage sag and consequent limitation of headroom, especially during simultaneous low frequency transients.

The two power stages in the Isis M75D operate in inverse phase relative to each other, whereby the RIGHT channel is electrically inverting. It draws power from the negative supply pole during a positive peak, while the LEFT channel is non-inverting and draws power from the positive supply pole. This has the effect of virtual doubling of the reservoir capacitors, providing twice the energy to the power stages relative to a conventional design.

A further advantage comes from the way the signal is inverted in the right channel. Conventional designs employ an extra phase inverter stage in the signal path. This inevitably introduces some lag and distortion. As the power stages of the Isis M75D have balanced inputs, phase inversion is achieved by wiring the input of the RIGHT channel inversely, thereby eliminating the need for a phase inverter stage. Proper phase at the output is achieved by connecting the speakers in accordance with the colours of the binding posts – the red binding post is connected to the positive terminal of each speaker.

Getting started

For simplicity we shall refer to the two operating modes as follows:

“ON” state – the amplifier is operating. Power LED glows white.

“OFF” state – the amplifier is in standby mode. Power LED glows red.

Numbers in brackets () refer to the front and rear panel layout diagrams on the following pages. Some circuits and the reservoir capacitors remain powered in the OFF state. If the amplifier will not be used for prolonged intervals, we recommend the mains power be switched off via the mains switch (12) on the rear panel.

Installation

The Isis M75D is designed for indoor use only. Place on a firm surface out of direct sunlight which provides adequate support. Avoid placing close to heat producing appliances. The Isis M75D features passive convection cooling and requires clearance at least 15cm (6”) to the side and above the amplifier to allow adequate airflow. Do not cover the cabinet or block the openings in the top plate. Inadequate airflow may lead to overheating and temporary disruption of operation.

The cabinet feet can be extended by up to 3mm (1/8”) from their fully retracted position to allow for perfect leveling. Start by screwing all feet to their fully retracted position. Adjust feet until the cabinet is horizontal and all feet are making equal contact with the supporting surface.

Making connections

Before making connections to the amplifier, ensure that it is off and any connected source is in mute or stand-by mode. Make sure all cable terminations are of the highest quality and free from frayed ends, short circuits, or cold solder joints. Plugs should be fully inserted into the respective sockets and binding posts tightened. Do not over-tighten – hand tightening is sufficient.

The circuitry employed in the Isis M75D amplifier requires special attention when connecting speakers. Do not connect the negative speaker terminals together. Do not connect the negative speaker terminals to ground or attempt to bridge the left and right speaker binding posts. Do not connect the amplifier to a speaker selector device that employs a common ground scheme, as it may short-circuit the amplifier output.

Using tube devices

The high DC voltage output of some tube-based devices may exceed the DC compensation and protection circuitry of the Isis M75D. Excessive DC level in a signal can damage amplifiers, speakers, or both. Coupling capacitors or transformers must be inserted into the signal path, preferably at the output of the device, by your authorized dealer, distributor, or the factory, before you can use your Isis M75D amplifier with a tube source.

Voltage selection

The Isis M75D will accept either 115/120V or 230V, 50/60Hz mains voltage. The voltage selector (17) is located on the rear panel below the mains inlet socket. You will need a small flat-blade screwdriver to slide the voltage selector actuator to the correct position.

WARNING: MAKE SURE THE VOLTAGE SELECTOR IS SET TO THE CORRECT POSITION FOR THE VOLTAGE IN YOUR AREA BEFORE CONNECTING THE POWER CORD! INCORRECT SETTING MAY DAMAGE THE AMPLIFIER. ALWAYS DISCONNECT THE POWER CORD BEFORE SWITCHING THE VOLTAGE SELECTOR!

Mains power switch

The mains switch (12) is a high performance thermal circuit breaker. It will cut off power in case of severe overload or a malfunction. There is no separate fuse inside the cabinet.

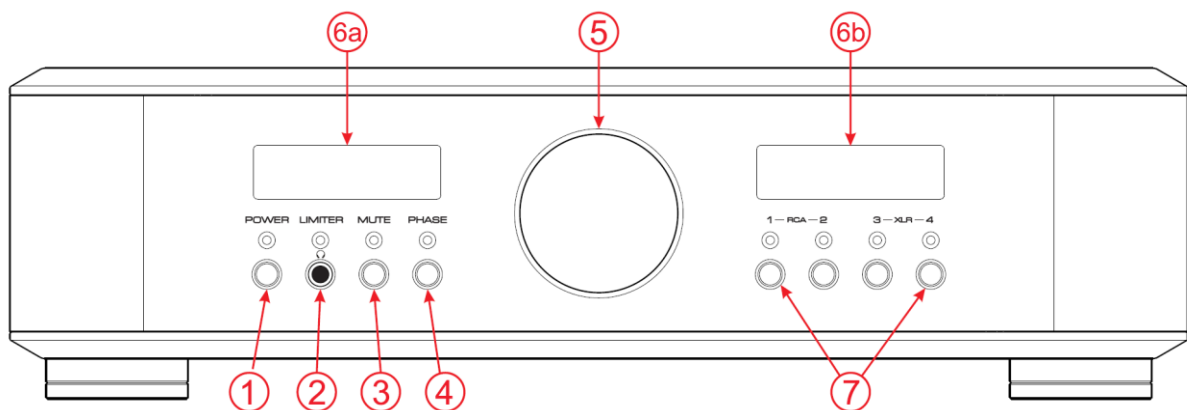
The quality of the mains power supply is important for safety and reliable operation. A brownout may force the amplifier into standby or trip the mains circuit breaker. Should this occur, toggle the mains switch (12) to reset it. Consider installing a power conditioner of sufficient rating. The Isis M75D is sold without a power cord. Make sure your preferred power cord has three lines and that the wall socket is properly wired: the earth/ground tab should be wired either to ground or to neutral at the socket.

Soft start

When mains power is applied, an inrush current limiting circuit will engage to gradually charge the main reservoir capacitors. The charging time depends on how long the amplifier has been switched off and can last up to 30 seconds. It is not possible to operate the amplifier during the charging cycle.

When the charging cycle is complete, a soft click will be heard and the POWER LED on the front panel will glow red, indicating that the amplifier is ready for operation. If the POWER LED does not illuminate within 30 seconds, check the power connection, verify presence of mains voltage and correct setting of the voltage selector (17).

Front panel layout



1. POWER button and LED. Power LED glows red in standby, white when the amplifier is on.
2. Headphones socket, Limiter/Status LED. Normally off. Glows white when the clipping limiter is activated, red if there is a fault condition.
3. Mute button and LED. Glows red when power stages and preamplifier output are muted.
4. Phase button and LED. Glows white when the amplifier is operating in inverse absolute phase.
5. Volume control and function selector in program mode.
- 6a Left display panel. Displays the volume level. Maximum value is 127.
- 6b. Right display panel. Typically displays the active input. On startup – displays volume target.
7. Input selection buttons and indicator LED's. The LED for the active input glows white.

Operation

Power button functions

Once the initial charging cycle is complete and the Power LED glows red, the amplifier can be switched ON either by pressing the Power button (1) on the front panel or via the remote control. Tap the POWER button to switch ON, hold for 1 second to switch off.

While the amplifier is ON, tap the POWER button once to activate the display. Tap again while the display is active to cycle through the display brightness steps:

High → Medium → Low → Dark → High → Medium → Low → Dark → ...

Power on sequence

When the Isis M75D is switched on, the Power LED and an LED of the active input will glow white. The left display panel (6a) will show the current volume setting while the right panel (6b) will show the target volume setting. Output will be muted for approximately 2 seconds after which the volume will increase gradually from 0 to the target value. Turning the volume knob (5) or pressing any of the Volume keys on the remote control will change the target value to which the volume will increment.

A slight “pop” may be heard in the speakers immediately after the Mute LED goes dim as the power stages require some time to cancel out any residual DC offset after powering up. This is normal.

Microcontroller and display

The Isis M75D is controlled by a high reliability automotive grade microcontroller. The display modules are LED matrices, selected for their readability and aesthetic appeal. Both the microcontroller and display are activated only when necessary and are switched off during idling to prevent interference.

The display will illuminate on any command to indicate the present state and will switch off after approximately 5 seconds idling. If you do not wish the display to illuminate at all, press the DIM button on the remote control (or tap the POWER button consecutively) until the display is in the ‘Dark’ setting. A pixel will blink to indicate reception of commands from the IR remote control.

Volume control

A precision, analogue, stepped attenuator matrix controls volume in steps of 0.75dB each. The attenuator state is displayed numerically whereas “0” corresponds to –96 dB and “127” corresponds to 0dB attenuation. Note that the signal is not completely muted at position “0”. To mute completely, use the MUTE function.

The volume control affects the output level of the preamplifier stage to the main amplifier stages, the headphones volume and the level at the “PRE-OUT” socket (15) on the rear panel.

Mute function

When a jack is inserted in the headphones socket or the MUTE button (3) is pressed, the speakers and the PRE-OUT signals will be muted. The “MUTE” LED will glow. MUTE mode cannot be disabled while a jack is plugged into the headphones socket.

Absolute Phase control

The Isis M75D a non-inverting amplifier. The absolute phase is toggled each time the PHASE button (4) is pressed. The PHASE LED will glow to indicate when the amplifier is in inverse absolute phase mode.

Using headphones

The Isis M75D contains a dedicated high performance headphones amplifier. When a jack is inserted in the headphones socket the MUTE function is activated. The MUTE LED will glow to indicate that no signal is sent to the power stages and the PRE-OUT socket (15). This is intentional as there may be other amplifiers connected downstream through the PRE-OUT socket. The amplifier will remain in MUTE mode after the jack is removed. Press the MUTE button (3) to resume listening through loudspeakers and/or enable the signal output to downstream amplifiers or devices.

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Source selection

The active signal source is selected by the Input selection buttons on the front panel (7).

The M75D will accept both balanced signals through its XLR input sockets as well as unbalanced signals through the RCA sockets. Performance is nominal regardless which input is used. Total system gain is +32dB (40x) in stereo mode and +38dB (80x) in bridge mode. Preamplifier gain is +6dB at position 127.

XLR Balanced line inputs

These inputs will accept a differential (balanced) signal from a source with balanced output. Maximum input level is 10Vrms.

Pin assignment:

- 1 – Ground
- 2 – Hot (positive phase)
- 3 – Cold (negative phase)

RCA input

The RCA inputs feature individual gain control via switches (8) located on the rear panel above each set of RCA sockets. The +8dB setting is useful when a source with unbalanced (RCA) outputs cannot provide sufficient voltage to achieve the full power output of the M75D at its maximum output level. Digital sources typically provide 2Vrms, whereas analog sources are typically at 0.7Vrms. The difference can be compensated by applying +8dB gain (x3 voltage gain).

Maximum input level is 10Vrms in 0dB gain position, 3.3Vrms in +8dB gain position.

The XLR5 MAIN IN / PRE-OUT sockets

A 5-pin XLR female socket (10) is provided for direct input to the power stages of the Isis M75D. This input should be used when connecting the Isis M75D to an external processor (e.g. for room correction) or an external preamplifier, with balanced outputs.

Caution: move the LINK switch (14) to AUX LOOP position to decouple the Isis M75D's preamplifier when connecting an external preamplifier, source or signal processor to the MAIN IN (10) socket.

Failing to switch LINK (14) to AUX LOOP position with an external device connected to the MAIN IN input will result in distorted sound as the output of the preamplifier in the M75D would be conflicting with the output of the external device, possibly resulting in damage.

We offer custom high performance adapter cables fitted with an XLR5 and two XLR3 plugs of the appropriate gender for connecting external devices through the XLR5 sockets.

Pin assignment of the XLR5 sockets:

- 1 – Left HOT (L+)
- 2 – Left COLD (L-)
- 3 – GROUND
- 4 – Right COLD (R-)
- 5 – Right HOT (R+)

Note: The MAIN IN (10) should only be used with balanced sources. Do not attempt to re-wire cables for connection to a device with unbalanced outputs.

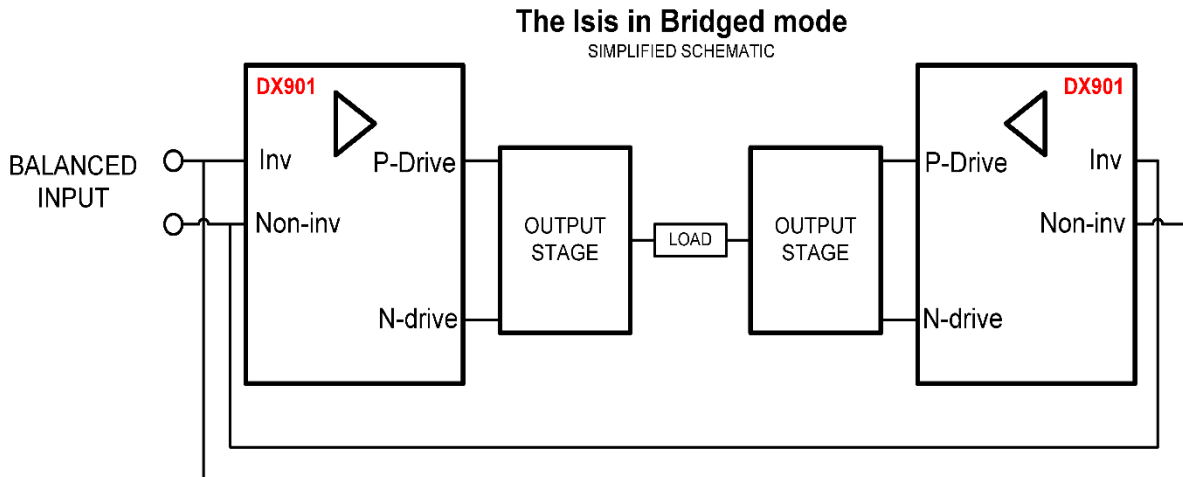
The PRE-OUT (15) can be used to provide signal to an external device, e.g. a subwoofer which has only unbalanced inputs. A custom cable with XLR5 female to 2x RCA male plugs will be required. Wiring:

<u>XLR5 PIN</u>	<u>RCA</u>
1	RCA Tip, LEFT channel
3	Common ground
5	RCA Tip, RIGHT channel

Bridge mode

Bridge mode transforms the Isis M75D into a high power, balanced, single channel amplifier. Both power stages are driven by the same signal when in bridge mode, yet work in inverse phase relative to each other to provide more power and reduced distortion. Distortion reduction occurs through cancellation of the even-order harmonics due to the symmetry of the topology. You will need an Isis M75P power amplifier for a stereo setup, each one operating in BRIDGE mode.

Switching modes should be done only while the amplifier is switched OFF.



When the amplifier is in BRIDGE mode, the speaker should be connected across the middle binding posts. The white LED (9a) marked BRIDGE will illuminate to indicate that the amplifier is configured as mono, and to remind you that the speaker should be connected to the binding posts on its either side.

The input signal to the Isis M75D amplifier in BRIDGE mode is the LEFT channel of the selected input.

NOTE: When the Isis M75D is connected to an Isis M75P via the XLR5 socket (15) with our X5-Interlink cable, both channels coming out from the preamplifier output of the Isis M75D are available as a signal source for the downstream Isis M75P. By default, the Isis M75D uses the LEFT channel in bridged mode. Therefore, select RIGHT channel on the M75P as the source in bridge mode. See owner's manual.

The minimum rated impedance in BRIDGE mode is 4 ohms. Loudspeakers with lower impedance may be used, however this may trip the overload protection and/or result in overheating if the amplifier is operated into a lower impedance load at high power output consistently.

Make sure that your loudspeakers can handle the output power of the amplifier in this mode. The Isis M75D will deliver up to 800 watts into a 4-ohm load in bridge mode.

Mode switch

Selects STEREO or BRIDGE mode. The mode switch (9) is located on the rear panel next to the XLR5 input socket.

To use the Isis M75D as a bridged mono amplifier, follow these steps:

1. Switch amplifier off.
2. Connect the left loudspeaker to the middle binding posts observing correct polarity.
3. Move the MODE switch (9) to BRIDGE position. White LED "BRIDGE" (9a) will illuminate.
4. Switch on and verify that the red output status LED's (11) are off.

Stereo mode

To use the Isis M75D in Stereo mode, set the MODE switch (9) to STEREO. Connect loudspeakers to the respective binding posts. The positive line of the speaker cable should be connected to the RED binding post of each output. The minimum rated load is 4 ohms. If a lower impedance load is connected, it may trigger the short-circuit protection or cause overheating, resulting in intermittent output or no sound

at the output. The red LED above the corresponding output (11) will glow in case of a short circuit or low impedance current limiting, indicating that the respective channel is disabled.

STEREO operation in a multi-amp setup

The Isis M75D may be used as part of a parallel multi-amplifier setup. To connect amplifiers in parallel to the output of the preamp, use the PRE-OUT socket (15) with appropriate cables for passing the signal downstream. The output can drive any reasonable number of downstream devices.

Trigger operation

The Isis M75D accepts and provides trigger voltage for remote on/off. When a voltage (6V-20V) is present on the "Trigger IN" socket (13), the amplifier will switch on and will remain on until the voltage is present. It cannot be switched off from the POWER button or the remote control while there is a voltage at the trigger input. The trigger input is an isolated floating sub-circuit to avoid ground loops. Input voltage polarity is irrelevant.

The trigger output can be used to switch other devices on/off by providing 12VDC voltage on the "Trigger OUT" socket when the Isis M75D is ON. The tip is positive. The output current is limited to 100mA and is short-circuit protected.

Remote control

All front panel functions are available via infrared remote (IR) control. The Isis M75D supports the Sony IR protocol. Most Sony-compatible transmitters may be used to control the Isis M75D.

Pressing a button on the IR transmitter will execute the selected function immediately, with the exception of IN> and IN<. When the display is in any of the active brightness settings, the change of input via IN> and IN< is intentionally delayed by 1 second to allow you to switch to the desired input without switching through the intermediate inputs. The display will illuminate to show which input is selected. The selected input will be active one second after the last IN> or IN< command.

Note: The IN> and IN< commands have instant action when display is in Dark mode.

PGM mode

Button functions on the IR transmitter can be re-assigned through the PGM mode:

1. Switch OFF amplifier from the POWER button (1) on the front panel.
2. While pressing buttons IN1 and IN4, press POWER button
 - ➔ left display panel (6a) will read "PGM"
 - ➔ right display panel (6b) will show the current function
3. Rotating the encoder (5) will cycle through the functions:
 - a. VU+ Volume up
 - b. VU- Volume down
 - c. PWR On/Off
 - d. MUT Mute toggle
 - e. PHA Phase toggle
 - f. IN1 Select Input 1 (RCA1)
 - g. IN2 Select Input 2 (RCA2)
 - h. IN3 Select Input 3 (XLR1)
 - i. IN4 Select Input 4 (XLR2)

- j. IN> Select next input
- k. IN< Select previous input
- l. DIM Display brightness. Cycles between 3 brightness states and off
- m. RST Reset to default values. Confirm reset with the PHASE button (4).*

* Resetting to default values should NOT be done if your Isis M75D was shipped with a temporary universal remote control transmitter. Doing so will require re-programming of all functions as described above. Should the universal remote control reset itself (e.g. on battery change), please refer to the specific procedure in its instruction manual to assign "Device Code 2475" to the "Amp" function. Re-programming of the amplifier is not necessary.

Reassigning buttons of the remote transmitter

Any button on the transmitter that emits a compatible IR command can be assigned to any of the above functions.

1. Enter PGM mode as described above.
2. Using the rotary selector (5), select the function to which you wish to assign a new button. The name of the function should be displayed in the right display window (6b).
3. Point IR transmitter to the right display window (6b) and press the desired key on the IR transmitter. Display will read "OK" on successful entry.
4. Repeat steps 2, 3 until all desired functions are assigned to keys on the IR remote control.
5. Press POWER button (1) to exit PGM mode.

Chassis grounding

The chassis of the M75D amplifier is internally grounded to the EARTH tab of the mains socket. A second connection to GROUND/EARTH is NOT required. Use the grounding post (16) to connect to other devices that may need grounding ONLY if they do not have an EARTH connection (i.e. if they are equipped with a 2-wire power cord), otherwise hum may result due to ground loops.

When an appliance with a 2-wire power cord is connected to the Isis M75D and hum is heard, use an appropriate wire to connect the EARTH binding post to a metal part on its chassis that is connected to its signal ground.

Care and maintenance

The Isis M75D has no user-serviceable parts inside. It does not require any periodic maintenance or adjustments – the advanced circuits are self-adjusting and always operate in optimal mode. There are no replaceable fuses inside the chassis. The chassis is protected from ingress of dust and water drops, however it is not watertight.

Cleaning the cabinet should be done with a feather duster. In case of fingermarks, use a lint-free cloth dampened with water and mild detergent. Do not use aggressive or abrasive cleaning agents. Finish off by wiping with a cloth dampened in clean water to remove any detergent residue.

WARNING: LETHAL VOLTAGES ARE PRESENT ON EXPOSED METAL PARTS INSIDE THE CABINET. OPENING THE CABINET IS AT THE PERSON'S OWN RISK. DO NOT OPEN THE CABINET WHILE THE AMPLIFIER IS CONNECTED TO THE MAINS. DO NOT OPERATE WITH THE TOP COVER OFF. ALLOW AT LEAST 10 MINUTES AFTER MAINS POWER HAS BEEN REMOVED FOR CAPACITORS IN THE POWER SUPPLY TO DISCHARGE BEFORE OPENING THE CABINET. VERIFY ABSENCE OF VOLTAGE BEFORE TOUCHING ANY PART. REFER SERVICING TO FACTORY-AUTHORISED PERSONS ONLY. ANY UNAUTHORISED REPAIR OR MODIFICATION VOIDS WARRANTY.

WARNING: DO NOT TOUCH THE LOUDSPEAKER BINDING POSTS OR LOUDSPEAKER TERMINALS WHILE THE AMPLIFIER IS OPERATING. DOING SO MAY CAUSE ELECTRIC SHOCK, PERSONAL INJURY OR PROPERTY DAMAGE, OR DEATH. KEEP CHILDREN AND PETS AT A SAFE DISTANCE.

Protection features

Short circuit protection

The power stages of the Isis M75D are protected against accidental short circuits. In the event of a short circuit in the presence of a signal, the protection circuit will engage. A red status LED on the rear panel located above the binding posts of the affected channel and the LIMITER LED on the front panel will glow red to indicate that an output is disabled. The protection circuit will attempt to resume operation automatically every 2 seconds. *Do not operate the amplifier into a sustained short circuit as permanent damage may result.*

Over-temperature protection

The maximum operating temperature of the power stages is limited to 70°C. Upon reaching this temperature the respective power stage will be disabled. Operation will resume automatically when the temperature of the heatsink drops to approx. 55°C. Should this occur, ensure better air flow.

Low impedance loads

The minimum rated load is 4 ohms, however the Isis M75D will easily drive loads whose impedance occasionally dips down to 1.5 ohms. If the load impedance is consistently lower than 3 ohms over a significant band of the audio spectrum *and* the amplifier is driven at high power, this may lead to overheating and temporary disruption of operation.

Low impedance or highly reactive loads may trip the short circuit protection, causing intermittent disruption of playback. The Limiter LED on the front panel will glow red while the output is disabled.

Clipping protection

Clipping occurs when an amplifier is overdriven, i.e. when the output signal attempts to go higher than the supply voltage. A clipped signal contains excessive distortion and can be very harmful to loudspeakers, especially tweeters, as it is equivalent to compression. A heavily clipped signal shifts the power output toward the top end of the audio spectrum, often leading to damaged tweeters.

A clipping monitor circuit in the Isis M75D is active at all times and will engage automatically when clipping level is reached. It acts as a volume control with fast engage and slow release times. The Limiter LED (2) will glow white when maximum output volume has been reached. Further increase of the input signal level will have no effect on the output level.

Sustained overload protection

A low impedance load driven at maximum output power may lead to excessive power draw from the power supply during an extended transient. In such an unlikely case the amplifier will revert to the standby state to prevent damage to the power supply.

DC protection

The Isis M75D is a dc-coupled amplifier. There are no capacitors in the signal path. Should a DC voltage appear at any of the inputs the amplifier, it will attempt to amplify it. In such an event the DC protection will engage and will disable the respective channel. The LIMITER LED on the front panel will glow red continuously, as well as one or both status LED's on the rear panel, indicating which channel is at fault.

Note: The DC protection is not self-resetting. Toggle the MAINS switch (12) and wait at least 10 seconds before switching mains power on. Should the problem persist, disconnect the active source and repeat. If the problem persists without the source, contact your dealer for assistance.

If a source component is producing DC voltage at its output, contact the party from whom it was purchased – it may have developed a defect or may need to have coupling capacitors installed to block DC output. Such capacitors may be inserted in the signal path without modification to the devices.

Technical specifications

Power stage voltage gain, stereo / bridged mode	+26dB / +32dB (20x/40x)
Preamplifier voltage gain	+6dB (2x)
Gain mismatch between channels	< 0.1 dB
Residual output noise	< 100 μ V
Input impedance	RCA 10 kOhm
	XLR3 20 kOhm
	XLR5 direct input 5 kOhm
Input sensitivity	XLR 1.15 Vrms
	RCA 0/+8dB gain setting 1.15 / 0.375 Vrms
Distortion @ -1dB ref. rated power	1kHz,.....0.003 %
	10kHz.....0.03 %
Frequency response, +/- 0.5dB	5Hz – 50kHz
Full power bandwidth	5Hz – 30kHz

Output specifications

Stereo mode

Peak output voltage	8ohm load, both channels driven with music	+/- 64Vpp
	4ohm load, both channels driven with music	+/- 60Vpp
RMS power output	8ohm, sine wave	2x 250W
	4ohm, sine wave	2x 400W
Damping factor measured at binding posts, ref. 8 ohm		> 400

Bridged mode

Peak output voltage	8ohm load, music	+/- 90Vpp
	4ohm load, music	+/- 80Vpp
RMS power output	8ohm, sine wave	1x 500W
	4ohm, sine wave	1x 800W

Preamplifier output impedance	10 ohms
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Power consumption

Standby (Off)	< 1W
Idle (On)	20W
Operating ¹	typ. 20W - 100W, 1250W peak

Environmental

Operating ambient temperature, RH non-condensing	+10 to +35 °C
Storage temperature	-40 to +65 °C

Dimensions including handles and feet, mm	440 (w) x 440 (d) x 125 (h)
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Net/Shipping Weight	21/29 kg
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¹ The power consumption of an audio amplifier depends on the listening level, the load impedance and the music. As a general rule, power draw is approximately 150% of the actual output power, plus the power draw in the idle state. Average power output with music typically is 10%-15% of rated power, even when playing at full output. The provided peak value assumes worst-case conditions: a sustained sine wave at the rated power output into the minimum rated load. The Isis M75D is not designed to operate in this mode continuously.

Troubleshooting

POWER LED off, no operation	<ul style="list-style-type: none"> • Check MAINS switch (12) -> ON. • Check for presence of line voltage. If POWER LED does not glow within 30 seconds after applying mains voltage, seek assistance from your dealer. • Check VOLTAGE SELECTOR (17). If incorrect, remove mains plug and set to proper position. • Toggle MAINS switch (12) to reset the integral circuit breaker.
POWER LED glows white, no sound	<ul style="list-style-type: none"> • Check INPUT selector -> select the active input. • Check if source is providing signal. • Check LINK switch (14) setting. • Limiter LED (2) glows RED -> Protection has been activated. Recycle mains power. • Check heatsink temperature. If hot, allow to cool. WARNING: HEATSINK MAY BE VERY HOT!
Sound is distorted	<ul style="list-style-type: none"> • Check speaker connections • Check signal cables • Inspect speakers for damage • Check LINK switch (14) setting
Sound is lost intermittently or on transients	<ul style="list-style-type: none"> • Verify load impedance >2 ohms (4 ohms in Bridged mode) • Check signal cables • Check speaker cables
Channels out of phase	<ul style="list-style-type: none"> • Check speaker connection polarity
Mains switch resets	<ul style="list-style-type: none"> • Check line voltage selector (17) and set to the correct voltage • If correct voltage setting, seek assistance from an authorized representative or the factory

WARRANTY

Every effort has been made to assure that this product will perform as specified. This Analog Domain product has a limited warranty of five years for parts and labor on circuitry ONLY. Should this product fail to perform at any time during the warranty, Analog Domain will repair it at no cost to the owner, except as set forth in this warranty.

THE WARRANTY DOES NOT APPLY TO DAMAGE CAUSED BY ACTS OF GOD OR NATURE, NEGLIGENT USE OR MISUSE, IMPROPER CONNECTION OR CONNECTION TO ANY DEVICE OR SOURCE THAT MAY CAUSE DAMAGE, OR OPERATING OR STORAGE OF THE PRODUCT IN AN ENVIRONMENT OUTSIDE OF THE SPECIFIED RANGE, OR WHERE IT MAY BE SUBJECTED TO CORROSIVE SUBSTANCES.

The warranty on this page shall be in lieu of any other warranty, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. There are no warranties which exceed beyond those described in this document. If this product does not perform as warranted herein, the owner's sole remedy shall be repair. In no event will Analog Domain be liable for incidental or consequential damages arising from purchase, use, or inability to use this product, even if Analog Domain has been advised of the possibility of such damages.

IMPORTANT *The owner is responsible for notifying his or her Analog Domain dealer, distributor, or Analog Domain that a tube preamplifier or source will be used with the amplifier, so that its manufacturer, the dealer from whom the tube device was purchased, or the respective distributor can install coupling capacitors. If the owner does not notify the Analog Domain dealer, distributor, or Analog Domain and uses a tube preamplifier or device without coupling capacitors engaged, Analog Domain reserves the right to refuse warranty related service due to DC-related damage.*

Proof of purchase in the form of a bill of sale or receipted invoice substantiating that the unit is within the warranty period must be presented to obtain warranty service. The warranty begins on the date of the original retail purchase, as noted on the bill of sale or receipted invoice from an authorized Analog Domain dealer or distributor. Previously owned equipment, when re-purchased from an authorized Analog Domain dealer or distributor, has the balance of the original warranty, based on the original date of manufacture.

The warranty for Analog Domain products is valid only in the country to which they were originally shipped, through the authorized Analog Domain distributor for that country, and at the factory. There may be restrictions on or changes to Analog Domain's warranty because of regulations within a specific country. Please check with your distributor for a complete understanding of the warranty in your country.

If a unit is serviced by a distributor who did not import the unit, there may be a charge for service, even if the product is within the warranty period. Freight and any other charges to ship the unit to and back from the factory to you are your responsibility. Analog Domain is not responsible for any damage incurred in transit. Analog Domain will file claims for damages as necessary for units damaged in transit to the factory. You are responsible for filing claims for shipping damages during the return shipment.

Analog Domain does not supply replacement parts and/or products to the owner of the unit. Replacement parts and/or products will be furnished only to the distributor performing service on this unit on an exchange basis only; any parts and/or products returned to Analog Domain for exchange become the property of Analog Domain.

NO EXPRESSED OR IMPLIED WARRANTY IS MADE FOR ANY ANALOG DOMAIN PRODUCT DAMAGED BY ACCIDENT, ABUSE, MISUSE, NATURAL OR PERSONAL DISASTER, OR UNAUTHORIZED MODIFICATION. **ANY DISASSEMBLY, COMPONENT REPLACEMENT, PERFORATION OF CHASSIS, UPDATES, OR MODIFICATIONS PERFORMED TO THE UNIT BY UNAUTHORIZED PERSONS WILL VOID THE WARRANTY.** In the event that Analog Domain receives a product for warranty service that has been modified in any way without Analog Domains' authorization, all warranties on that product will be void. The product will be returned to original factory layout specifications at the owner's expense before it is repaired. All repairs required after the product has been returned to original factory specifications will be charged to the customer, at current parts and labor rates. All operational features, functions, and specifications and policies are subject to change without notification.