

# MAJIK-I INTEGRATED AMPLIFIER



# IMPORTANT SAFETY INSTRUCTIONS

Explanation of symbols used in this manual or on the rear/underside of the apparatus:

This symbol is intended to alert the user to the presence of uninsulated dangerous voltages within the enclosure of sufficient magnitude to cause electric shock.



This symbol is intended to alert the user to the presence of important operation, maintenance and servicing information in the instruction and service manuals.



For apparatus connected to the mains electricity supply

#### CAUTION

- · To reduce the risk of electric shock do not remove the cover.
- · No user serviceable parts inside.
- Refer servicing to qualified service personnel.
- Replace the mains fuse in the plug with one of the same type and rating.
- · Disconnect supply cord before changing fuse.

#### WARNING

To reduce the risk of fire or electric shock do not expose this apparatus to rain or moisture. Shock hazard - do not open.

#### MAINS PLUGS

- This apparatus is supplied with a non-rewireable mains plug for the intended country.
- Replacement mains leads can be obtained from your Linn retailer. Should you need to change the plug please dispose of it carefully. A plug with bared conductors is dangerous if engaged in a live socket.
- The Brown wire must be connected to the Live (Line) supply pin.
- The Blue wire must be connected to the Neutral supply pin.
- The Green/Yellow wire must be connected to the Earth (Ground) supply pin.

Please contact your retailer or a competent electrician if you are in any doubt.

Refer to the rear or underside of the product for fuse and power consumption information.



## **General Safety Instructions**

- Read these instructions.
- Keep these instructions.
- 3. Heed all warnings.
- 4 Follow all instructions.
- Do not use the apparatus near water, for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool etc.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Site the apparatus so that its location or position does not interfere with its proper ventilation. For example, the apparatus should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarised or grounding type plug. A polarised 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 is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and at the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- Use only with the stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
- Unplug this apparatus during lightning storms or when unused for long periods of time.

- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug has been damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Wall or ceiling mounting. Mount the apparatus to a wall or ceiling only as recommended by the manufacturer.
- Power sources. Connect the apparatus to a power supply only of the type described in the operating instructions or marked on the apparatus.
- 17. Mains plug. Use the mains plug to disconnect the apparatus from the mains supply. The mains plug must be accessible at all times. Use the mains switch (if applicable) when the apparatus is not in use.
- 18. **Power lines.** An outdoor antenna should be located away from power lines.
- Outdoor antenna grounding. If an outdoor antenna is connected to the apparatus, ensure that the antenna system is grounded to provide some protection against voltage surges and static build up. In the USA see article 810 of the National Electrical Code ANSI/NFPA 70 concerning installation requirements.
- Telephone line. Do not connect the apparatus to a telephone line except where specifically instructed to do so.
- Objects and liquid entry. Do not let objects or liquids fall into the apparatus.
   Do not expose the apparatus to dripping or splashing.
   Do not place a vessel containing liquid on top of the apparatus.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- 23. The apparatus has been designed for use in moderate and tropical climates.

# **UK Users Please Read This Important Safety Information**

#### Fuse replacement

This appliance is fitted with a non-rewireable 13 amp mains plug. The plug contains a 5 amp fuse. If the fuse has blown it can be replaced as follows:

- Pull out the red fuse cover/carrier.
- b) Remove and dispose of the blown fuse.
- Fit a new 5 amp BS1362 approved fuse into the carrier and push the carrier back into the plug.

Always ensure the fuse cover is fitted. If the fuse cover is missing do not use the plug. Contact your Linn retailer to obtain a replacement fuse cover.

Fuses are for fire protection and do not protect against electric shock.

#### Mains plug replacement

Should your mains plug need replacing and you are competent to do this proceed as follows. If you are in doubt contact your Linn retailer or a competent electrician.

- Disconnect the plug from the mains supply.
- Cut off the plug and dispose of it safely. A plug with bared conductors is dangerous if engaged in a live socket.
- Only fit a 13 amp BS1363A approved plug with a 5 amp fuse.
- The cable wire colours or a letter will be marked at the connection points of most quality plugs.
- Attach the wires securely to their respective points. The Brown wire must go to the Live pin, the Blue wire must go to the Neutral pin, and the Green/ Yellow wire must go to the Earth pin.
- Before replacing the plug top ensure that the cable restraint is holding the outer sheath of the cable firmly and that the wires are correctly connected.

#### WARNING

THIS APPLIANCE MUST BE EARTHED.

# **CE Declaration of Conformity**

Linn Products Ltd declare that this product is in conformance with the Low Voltage Directive 73/23/EEC and Electromagnetic Compatibility 89/336/EEC as amended by 92/31/EEC and 93/68/EEC.

The conformity of the designated product with the provisions of Directive number 73/23/FEC (LVD) is proved by full compliance with the following standards:

73/23/EEC (LVD) is p	proved by full com	pliance with the following standards:
Standard number	Date of issue	Test type
EN60065	2002	General requirements
		Marking
		Hazardous radiation
		Heating under normal conditions
		Shock hazards under normal
		operating conditions
		Insulation requirements
		Fault conditions
		Mechanical strength
		Parts connected to the mains
		supply
		Components
		Terminal devices
		External flexible cords
		Electrical connections and
		mechanical fixings
		Protection against electric shock
		Stability and mechanical hazards
		Resistance to fire

The conformity of the designated product with the provisions of Directive number 89/336/EEC (EMC) is proved by full compliance with the following standards:

Standard number	Date of issue	Test type
EN55013	2001	Conducted emissions
EN55013	2001	Absorbed emissions
EN55020	2002	Immunity

#### **FCC** notice

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

# Waste Electrical and Electronic Equipment (WEEE) Directive

# Waste Electrical and Electronic Equipment Directive Directive 2002/96/EC of the European Parliament and of the Council

The symbol (right) is shown on this product. It indicates that the product should not be disposed of with regular household waste, but should be disposed of separately.



Electrical and electronic equipment can contain materials that are hazardous to the environment and human health and therefore should be disposed of at a designated waste facility or returned to your retailer for the appropriate recycling to take place (see www.linn.co.uk for further information).

If you wish to dispose of this product and the product still functions, please consider recycling/reusing it by donating it to a charity shop, selling it or part-exchanging it with your retailer.

# **Copyright and Acknowledgements**

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# INTRODUCTION

# The Majik-I integrated amplifier

Linn was founded more than 30 years ago on the belief that music is fundamental to human well-being and that music reproduced to the highest standards can bring lasting pleasure.

The desire to reproduce music to the highest quality remains the driving force behind the company today, and that commitment is manifested in the Majik-I integrated amplifier. This advanced product utilises the very latest technology to take you closer to the music you love. And the inclusion of a phono-stage ensures that the Majik-I is well equipped to satisfy the discerning audiophile.

The Majik-I integrated amplifier is the perfect partner for Linn's Majik CD player. Whether as part of a complete Majik system or as the integrated amplifier in your existing system, with the Majik-I you will rediscover your music collection.

# **FEATURES**

# Chakra amplifier technology

The Chakra amplifier design uses an array of large transistors as 'boosters' around a single chip integrated circuit. When output current is less than a few amps all the power output comes from the single chip circuitry, maximising the speed and linear properties of this design. At higher output currents the transistors provide the majority of the output current, leaving the integrated circuit to operate well within its capability and able to correct any error instantaneously.

The design is very compact, reducing the circuit area and length of the signal path and is also highly efficient, producing much less heat than traditional designs.

# Switch mode power supply (SMPS)

SMPS is an electronic power supply which converts and regulates the incoming mains voltage, and also provides the internal audio circuitry with excellent electrical isolation from the outside world. The SMPS replaces the bulky, heavy and noisy transformer found in most amplifiers, as well as a number of other sizeable components.

The major benefits of SMPS over conventional power supplies include: small size, high efficiency, fast response, high mains input tolerance and, with its much reduced material use, environmental friendliness.

Also, SMPS does not emit distortion into the local mains supply, as conventional large power supplies tend to do. And if you upgrade from an amplifier with a conventional power supply to the Majik-I amplifier, aside from the benefits of the improved amplification, the sound of your entire system will almost certainly improve as a result of the cleaner mains supply.

# Aktiv\* operation

Standard 'passive' crossovers are driven by the audio signal itself and so some of the signal is effectively lost. Aktiv crossovers are powered by the SMPS (see left) and therefore much more of the audio signal is delivered to the loudspeaker. They are also able to exert a much greater degree of control over the signal and these qualities combine to provide a significant improvement in sonic performance over standard operation.

Your authorised Linn retailer can convert your Majik-I amplifier to Aktiv operation with the insertion of a specially designed Linn Aktiv module.

#### **Protection**

#### Over-current protection

If the output current goes above the power amplifier's designated safe operating level, it shuts down instantly for a few seconds in order to protect itself and the loudspeaker drive units to which it is connected.

#### Over-temperature protection

Similarly, if the amplifier's temperature rises above its safe operating limit, the amplifier will cease operation until the temperature drops to a safe level and will then automatically resume.

\* The term 'Aktiv' refers to the proprietary Linn active modules and loudspeaker configuration.

# INSTALLATION

## **Unpacking**

The Majik-I is supplied with the following accessories:

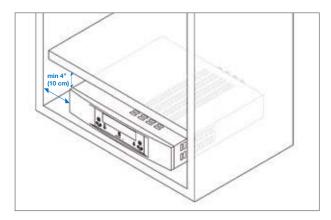
- luminous handset
- · 2 x AAA batteries for the handset
- mains lead
- warranty pack
- this manual

We recommend you retain the packaging for reuse in case you need to transport the unit at a later date.

# **Positioning**

# **Ventilation requirements**

Despite the efficiency of the design, your Majik-I integrated amplifier still requires to dissipate considerable power in the form of heat. It should therefore be sited in a position that does not restrict the airflow around it.



#### For best results:

- Allow at least 10 cm / 4" free space above and to each side of the unit for air circulation which will allow this heat to dissipate.
- If the unit is sited a cabinet, air must be able to flow through from front-to-back. An enclosed cabinet will severely restrict heat dissipation.
- Ensure that nothing is placed above or below the amplifier that might block or restrict the vents.

If the Majik-I has inadequate ventilation and/or is played very enthusiastically for a period of time, its temperature may rise above the designated operating level and the amplifier will shut down until it has cooled sufficiently.

#### Other devices

Ideally, your Majik-I integrated amplifier should not be located directly above or adjacent to other heat-producing products such as radiators, other power amplifiers, etc. If multiple amplifiers are being used and space is restricted, placing them side by side is preferable to stacking.

It is advisable to site your Majik-I away from (and if possible connected to a power socket on a different circuit from) powerful electrical or electronic products such as TV sets, computers, cookers, fridges etc. This will prevent the possibility of the strong electrical and electromagnetic emissions or interference given off by such devices adversely affecting the performance of your amplifier.

Please read the following carefully **before** installing the unit in your system – your unit may need to be reconfigured by your Linn retailer.

The Majik-I integrated amplifier includes a phono input, which allows connection of a phono turntable. Even if you do not have a turntable, please consider the following points:

LINE INPUT 6 / PHONO can be configured to operate as a moving-magnet (MM) or moving-coil (MC) phono stage, or an extra 'line-level' input. See note below for an explanation of these terms.

When shipped, LINE INPUT 6 / PHONO is factory-set to operate as an MM phono stage.

If you wish LINE INPUT 6 / PHONO to operate in line-level mode, this requires an internal hardware reconfiguration, which must be carried out by an authorised Linn retailer. If you require LINE INPUT 6 / PHONO to operate in moving-coil (MC) mode, this requires an MC Upgrade Kit (available from your Linn retailer) and an internal hardware reconfiguration, which must be carried out by an authorised Linn retailer. Dismantling or adjustment by persons other than Linn appointed personnel could invalidate the manufacturer's warranty.

If you wish to know the current configuration of LINE INPUT 6 / PHONO, this can be viewed in the Majik-I setup menus (see Setup Menus, page 16).

#### Notes:

Unlike line-level inputs, phono stages require to amplify extremely small signal levels, so if they are not treated with great care they can be susceptible to noise and signal degradation. Linn have therefore designed the phono stage as a hard-wired circuit, rather than a switchable or software configurable adjustment. This has been done in order to optimise audio performance and remove components such as switches, which could potentially degrade the signal in this most precise of circuits.

'Moving-magnet' and 'moving-coil' are the two types of phono cartridge available. If you have a turntable and are not sure which type of cartridge you have, consult the cartridge packaging, its manufacturer's published information or the retailer from whom it was purchased. 'Line-level' inputs are for connection of line-level (fixed volume) products such as CD players, radio tuners, DVD players, video recorders, etc.

# Important information - protection

#### Operation

If the power amplifier section overheats or detects an overload condition, it will shut down in order to protect itself and the loudspeaker drive unit(s) to which it is connected.

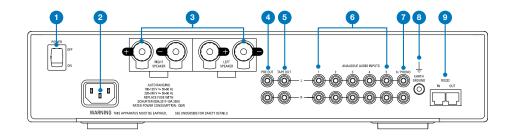
#### Duration

Once the condition that caused the amplifier to activate its protection has passed, the amplifier will automatically resume normal operation. How long the power amplifier section remains in protection will depend on the cause. If the protection operates for more than a few seconds it could indicate overheating which may take some minutes of cooling to rectify.

A long delay (10 minutes or more) could indicate a persistent overload condition (e.g. one of the components connected to the amplifier is faulty). Try switching the Majik-I off at the mains for 30 minutes or so and try again. If it remains non-operational, consult your retailer who can examine your system and determine the source of the problem.

#### CONNECTING

# **Back panel**



#### 1. POWER: OFF, ON

For switching the power to the unit on and off

#### 2. Mains input

For connection to the mains supply.

See Connecting to the mains supply, page 8

#### 3. RIGHT, LEFT SPEAKER

Amplified output for connection to loudspeakers

#### 4. PRE OUT

Line-level outputs for connection to an external power amplifier

#### 5. TAPE OUT

Fixed volume outputs for connection to a tape recorder or other analogue recording device

#### 6. ANALOGUE AUDIO INPUTS 1 – 5

For connection to line-level source products, such as a CD player, radio tuner, tape deck, etc

#### 7. ANALOGUE AUDIO INPUT 6 / PHONO

INPUT 6 can be configured as a moving-magnet, moving-coil or line-level input (the factory setting is moving-magnet). See *Important information – phono input*, page 4

#### 8. EARTH GROUND

For connecting the earthing lead from the tonearm cable of a turntable, if required. Also for connecting the unit to an earthing terminal if no mains earth is available

#### 9. RS232 IN and OUT

For RS232 inter-connection. An RS232 control product can be connected to the IN socket and used to control the Majik-I. The OUT socket can be used to relay commands to other RS232 controllable products downstream

#### Important:

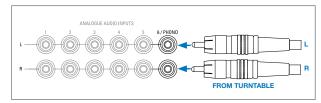
Before making any connections, switch off all products in your system at the mains.

#### Notes:

LINE INPUT 6 / PHONO may need to be reconfigured if connected to a line-level source product (this adjustment must be done by an authorised Linn retailer). See *Important information – phono input*, page 4.

Input names, as they appear on the front panel display, can be customised for your convenience. See *Setup Menus*, page 16.

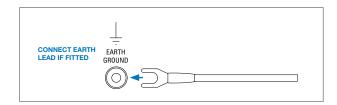
# Connecting a turntable



#### Important notes:

LINE INPUT 6 / PHONO may need to be reconfigured if connected to a turntable which is fitted with an MC cartridge (this adjustment must be done by an authorised Linn retailer). See *Important information – phono input*, page 4.

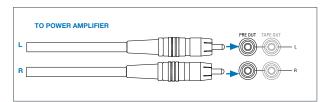
If an earthing lead is fitted to the tonearm cable, best results are usually achieved by connecting it to the EARTH GROUND terminal.



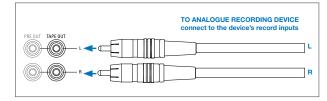
If, however, its connection introduces noise (hum etc.) or a reduction in sound quality, then disconnect it: certain tonearms/cartridges function better with no earth connection.

Input names, as they appear on the front panel display, can be customised for your convenience. See *Setup Menus*, page 16.

## Connecting to an external power amplifier

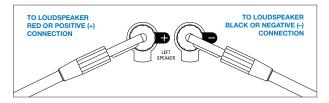


# Connecting to an analogue recording device (e.g. tape deck)



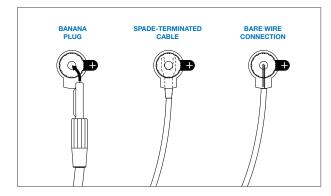
# **Connecting to loudspeaker terminals**

Connect each channel as shown.

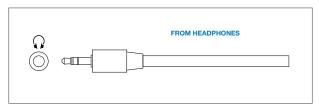


The binding-post terminals can be used as sockets for the connection of 4 mm banana plugs or can be used as binding posts for the connection of bare wires or spade-terminated cables by loosening the outer section of the binding, inserting the cable or terminal and re-tightening the binding post to clamp it in place.

Ensure that all the binding posts are tight.



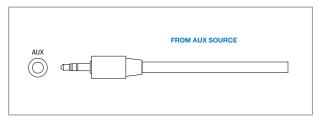
# **Connecting headphones**



#### Note:

Audio output to loudspeakers will be muted when headphones are connected.

# Connecting to an AUX source, e.g. MP3 player



#### Notes:

The AUX source will be automatically selected as the current source when a jack is connected.

The volume of the AUX source should be adjusted to provide the best performance without distorting the audio.

# Connecting to the mains supply

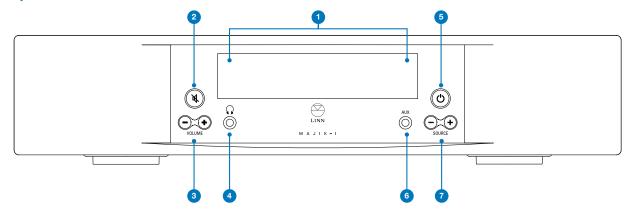
Important – Do not connect to the mains supply until all other connections have been made. All products in the system must be powered down while connecting/disconnecting.

The unit must always be earthed when connected to mains power. Use the earthed, moulded mains lead supplied. Never use an unearthed mains plug, socket or adaptor with this unit. The mains lead supplied may be fitted with a fused plug, depending on local regulations. If this is the case, always replace this fuse with another of the same type and rating.

Your Majik-I can be connected to any worldwide mains voltage with no adjustment. The Majik-I incorporates Automatic Voltage Selection (AVS) and the power supply automatically adjusts for the incoming mains supply.

The unit uses a switch mode power supply (SMPS) in place of the bulky, heavy, noisy and inefficient transformer (and associated circuitry) found in conventional designs. This Linn designed power supply provides excellent tolerance to lesser quality mains supplies, allowing it to perform at close to its best, even with supplies that are quite badly corrupted.

# Front panel



- 1. Front panel display
- 2. Mutes and un-mutes the volume
- 3. VOLUME / VOLUME + Adjust the volume level
- 4. (headphone socket)
  Accepts a 3.5 mm headphone jack

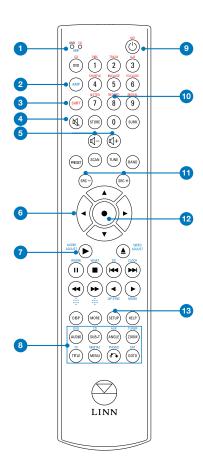
5. (standby)

Brings the unit out of, or puts into, standby

6. AUX (auxiliary source socket)

For connecting a portable auxiliary source, e.g. MP3 player. Accepts a 3.5 mm jack

7. SOURCE - / SOURCE + Change source



#### Handset

#### 1. LEDs

Indicate when a signal is being transmitted from the handset. The LED pattern indicates the handset's current mode of operation. See *Handset modes*, below

#### 2. AMP

Changes the handset mode for pre-amplifier control (the functions marked in blue text on the handset). See *Handset modes*, below

#### 3. SHIFT

Allows access to RECORD and OFF functions. See *Handset modes*, below

#### 4. ሺ

Mutes / unmutes the audio output

#### 5. ℚ+/ℚ−

Adjust volume level

#### 6. ▲/▼/◀/▶

For navigating setup menus and adjusting various features

#### 7. AUDIO ADJUST

Accesses adjustable audio features

#### 8. Direct source keys

Provide direct selection of sources

#### 9. 也/OFF

Brings unit out of, or puts into, standby / Emits a discrete 'OFF' command – required for certain control applications

#### 10. RECORD

For setting up/altering a record path

#### 11. SRC - / SRC + (source - / source +)

Change source

#### 12. •

Selects/executes options and certain commands

#### 13. SETUP

Enters/exits setup menus

#### Handset modes

For convenience, the handset has been designed to operate a number of different Linn products. This is to ensure that the number of handsets required to operate a Linn system is minimised. The handset is therefore capable of operating in a variety of modes:

#### Amp mode

Press the **AMP** key. The pre-amplifier functions (printed in blue above or below the keys) will then be the primary handset keys and both LEDs will light when one of the keys is pressed.

#### **DVD** mode

Press the **DVD** key. The DVD functions will then be assigned as the primary handset keys and the 'DVD' LED will light when one of the keys is pressed.

#### CD mode

Press **SHIFT** + **DVD**. The CD functions will then be assigned as the primary handset keys and the 'CD' LED will light when one of the keys is pressed.

#### SHIFT functions

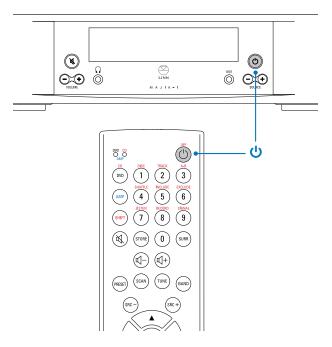
Pressing **SHIFT**, followed (within 2 seconds) by one of the keys with red type above it will access the function as indicated by the red type. Note – unlike the 'mode' functions above, the handset is not reassigned, therefore **SHIFT** must be pressed each time a shift function is accessed.

#### Note:

The handset mode and the product being controlled will determine which keys are operational. Some keys will only operate with specific products and may be non-functional for others.

# **Standby**

When connected to the mains supply your Majik-I will take approximately eight seconds to configure itself. During this time three dots will be shown on the display and the unit will ignore front panel and handset commands. After the Majik-I has completed this process it will enter standby mode and the display will show the standby symbol  $\dot{\mathbf{U}}$ .



#### To toggle between standby mode and operating mode:

• Press  $\circlearrowleft$  on the handset or front panel.

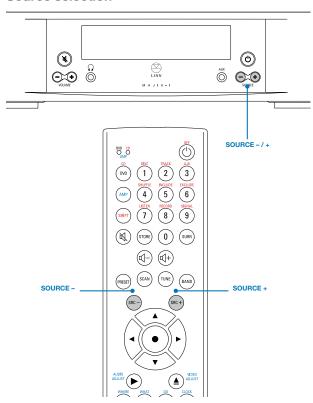
#### Notes:

Any of the front panel keys will also bring the unit out of standby.

Standby mode reduces the power used by the unit and is useful for situations where the unit is not being used for a short time and/or requires to be switched on remotely. For longer periods of non-use, switching off at the mains (using the mains switch at the rear or unplugging) is recommended.

#### **Basic controls**

#### Source selection



#### To select a source:

 Repeatedly press, or press and hold SOURCE - / SOURCE + on the handset or front panel to scroll through the available sources. The handset does not need to be in Amp mode.

or

 If the input types for the audio sources have been configured in the setup menus, directly select the source using the source selection keys on the handset. See Setup Menus, page 16. The handset must be in Amp mode.

10

 Inserting a 3.5 mm jack into the front panel AUX socket, automatically selects this input. Removing the 3.5 mm jack automatically de-selects the input and causes the Majik-I to revert to the last source selected.

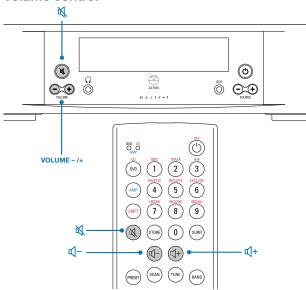
#### Notes:

The names for the inputs, as displayed on the front panel, and the input types can be customised for your convenience (see *Setup Menus*, page 16).

Setting an input type to 'None' (see Setup Menus, page 16) means that the input will not be available for selection.

When there is not a jack inserted in the AUX socket, this input will not be available for selection.

#### Volume control



#### To change the volume setting:

Repeatedly press, or press and hold ¬ ¬ ¬ ¬ ¬ ¬ + on the handset, or VOLUME - / VOLUME + on the front panel.

Volume range is from 0 to 100 (in 0.5 steps).

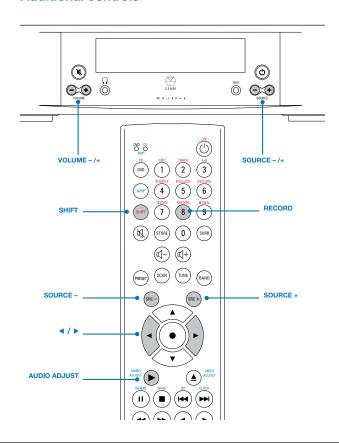
#### To mute and un-mute the volume:

Press on the handset or front panel.

#### Note:

The handset volume and mute keys are not affected by the handset mode.

#### **Additional controls**



# Balance adjustment (handset must be in Amp mode)

#### To adjust the balance setting:

Press AUDIO ADJUST on the handset.

The display will show the current balance setting.

 Use ◀ / ► on the handset or VOLUME - / + on the front panel to adjust the balance to the left and right respectively.

Balance range is from 10 increments to the left to 10 increments to the right, with neutral balance being 0.

# Recording

#### To record a source:

- Press RECORD on the handset (SHIFT + 8).
- Select the source you wish to record using SOURCE / + on the front panel or handset.

The selected source will then be output at a fixed volume from the TAPE OUT outputs and can be recorded by an analogue recording device.

#### Notes:

The Majik-I has separate listen and record paths, enabling you to record one source while listening to another.

Setting the record path to 'No source' means that no record path will be set.

Sources with type set to 'None' will not be shown.

# **SETUP MENUS**

The setup menus can be used to configure the Majik-I to customise aspects of its operation to suit your requirements, to operate in a particular type of installation, or to view important functional data.

# **Entering and navigating setup menus**

#### Using the handset:

- Put the handset into Amp mode by pressing the AMP key.
- Press SETUP.
- Navigate up or down the options within a menu, using ▲ / ▼.
- Press ▶ or to select an option.
- Press 

  to go back to the previous option or menu.
- Press SETUP to exit setup.

or

#### Using the front panel:

- Press and hold M until 'MAIN MENU' appears on the front panel display.
- Navigate up or down the options within a menu, using SOURCE + or SOURCE -.
- Press **VOLUME** + or  $\circlearrowleft$  to select an option.
- Press VOLUME to go back to the previous option or menu.
- Press \( \mathbb{M} \) to exit setup.

#### Note:

For each option the currently selected setting will be indicated by a tick  ${m arepsilon}$  beside it.

#### The main menu consists of four sub-menus:

Display configuration Source configuration Audio configuration Unit configuration

# **Display configuration**

Option	Settings	Description	Default setting
Display Brightness	Auto Percentage (2 – 100%)	If set to 'Auto', the display brightness will change with the surrounding lighting conditions (dimmer surroundings => dimmer display / brighter surroundings => brighter display).  To select 'Auto', scroll up or down the percentage settings and the 'Auto' option will appear in place of 0%. With 'Percentage', you can select a setting between 2% and 100%. The display brightness will (while out of standby) remain set to the specified brightness setting.	100%
Display Content	Source and Volume Volume Source Last Used	If set to 'Source and Volume', both the currently selected source and the current volume setting will be displayed on the front panel.  If set to 'Volume', only the current volume setting will be displayed.  If set to 'Source', only the current source setting will be displayed.  If set to 'Last Used', the last setting (source or volume) to be adjusted will remain on the display.  Note:  The above settings are applicable only when the unit is out of standby, is not in display-sleep mode and is not being adjusted.	Source and Volume
Display Timeout	1 – 10 seconds	Determines how long, after an adjustment is made, before the display reverts to its 'Display Content' setting as detailed above.	2 seconds
Sleep Display Delay	Delay in minutes and seconds (0 seconds to 5 minutes) Off	The time setting determines how long after the last command has been received that the display goes to sleep (where only 3 dots are visible on the display).  If set to 'Off', the display will not go to sleep.	Off

# **Source configuration**

The options listed below are available for each source. Select the source you wish to adjust and amend as required.

Option	Settings	Description	Default set	tting
Name	N/A	Allows you to customise the input name as it appears on the display. Any name can be entered, up to a maximum of 12 characters (including spaces).	Socket Aux	Name Aux
		To change the selected input name:  • Use the ▼/▲ keys on the handset or SOURCE - / + keys on the front panel to change the flashing character.	Input 1 Input 2 Input 3	Majik CD Input 2 Input 3
		• Use the ▶ key on the handset or <b>VOLUME</b> + key on the front panel to move to the next character.	Input 4	Input 4
		<ul> <li>Use the ◀ key on the handset or VOLUME – key on the front panel if you wish to move to the previous character.</li> <li>Once you are happy with your changes press ● on the handset or ひ on the front panel.</li> </ul>	Input 5 Input 6	Input 5 Phono
		To exit and go back to the menu, repeatedly press the ◀ key on the handset or <b>VOLUME</b> – on the front panel.		
Туре	Aux (auxiliary) None Satellite Cable TV DAT Tape 2/VCR Tape 1 Phono/Aux 2 Tuner DVD CD	The source type selected allows the input to be directly selected from the handset (see <i>Handset</i> , page 16), as an alternative to scrolling through the inputs.  Notes:  Assigning 'None' as a source type means the input will not be available for selection – useful for bypassing unconnected source inputs.  Not all source types listed are available for direct selection on the handset supplied. Some are only available on older Linn handsets.  If more than one source input has been configured as the same source type, repeatedly pressing the relevant key on the handset will scroll through all those that apply.	Socket Aux Input 1 Input 2 Input 3 Input 4 Input 5 Input 6	Type Aux CD Aux Aux Aux Aux Aux Aux
Volume Offset	-15 to +15	Allows the volume level of each source input to be adjusted up or down, relative to the others.  Allows you to equalise the volume across all sources. For example if a CD player and a radio tuner are connected, the CD player's output volume may be louder than that of the tuner so this feature saves volume adjustment when switching between these sources.  Note:  The volume difference will not be visible on the volume display – so when switching between offset sources, the volume display will not reflect the offset.	0	

# **Audio configuration**

Option	Settings	Description	Default setting
Volume Rate	1/10 to 10/10	Allows you to adjust the rate at which the volume changes when the <b>VOLUME - / +</b> keys are held down. 1/10 = slowest, 10/10 = fastest.	8/10
Mute Rate	1/10 to 10/10	Allows you to change the rate at which the volume mutes/unmutes when the <b>MUTE</b> key is pressed. 1/10 = slowest, 10/10 = fastest.	8/10
Volume Limit	0 to 100	Allows you to limit the unit's maximum volume.  For example, if you set the volume limit to 60, the volume cannot be raised above 60.	100
Volume Preset	0 to 100	Allows you to adjust the volume level that the unit will be set to when it comes out of standby.	40
Headphone Offset	-15 to +15	Allows the volume of the headphone output to be adjusted up or down, relative to the loudspeaker volume.	0
		This option enables you to compensate for the different outputs of different headphone types. So after adjusting the offset, when headphones are connected or disconnected, the volume should not require adjusting.	

# **Unit configuration**

Option	Settings	Description	Default setting
Selection Timeout	1 – 10 seconds	Allows you to adjust the time taken for source selection to take effect. A delay allows you time to scroll through and view available sources.	1 second
Startup Source	None Last used AUX PHONO Input 5 Input 4 Input 3 Input 2 Majik CD	Allows you to set which source input will be selected when the unit comes out of standby.  Note:  The names shown are configured in the Source Configuration options.	Last used
Standby Record From	None Last used AUX PHONO Input 5 Input 4 Input 3 Input 2 Majik CD	Allows you to set a source to be output at TAPE OUT while the unit is in standby.	Last used
Handset Commands	Enabled Disabled	If set to 'Enabled', the unit will accept remote commands from the handset.  If set to 'Disabled', the unit will not accept remote commands from the handset. (Setup menus will only be accessible and adjustable via the front panel controls.)	Enabled
RS232 Configuration	N/A	This option accesses the RS232 setup sub-menu – used to configure the unit to communicate with other RS232 enabled products.	N/A
Defaults	N/A	This option accesses the defaults sub-menu – used for saving and recalling configurations.	N/A
Unit Information	N/A	Not adjustable – for information only. Allows the unit's software/hardware revisions to be viewed. This category is mainly intended for Linn personnel and Linn-appointed service agents.	N/A

# **RS232** configuration

Option	Settings	Description	Default setting
Baud Rate	230400 115200 57600 38400 28800 19200 14400 9600 4800	Set the baud rate to suit the RS232 protocol being used.	9600
Parity	Even None Odd	Set parity to suit the RS232 protocol being used.	Even
Data Bits	7 8	Set the data bits to suit the RS232 protocol being used.	7
Stop Bits	1 2	Set the stop bits to suit the RS232 protocol being used.	1
RS232 Events	Enabled Disabled	If set to 'Enabled', the unit passes information regarding its internal status to an external device that accepts RS232 data.	Disabled

# **Defaults**

Option	Settings	Description	Default setting
Save Installation	Save	After the unit has been configured, you can save the settings by selecting this item. The saved Installation settings can be restored at any time should the unit's setup be changed (see below).  Any alterations to the product's setup that you wish to keep as a new Installation can be stored by selecting this item, which will overwrite the existing Installation settings.	N/A
Restore Installation	Save	If you have made changes to the setup that you do not wish to keep, use this option to restore the previously saved Installation settings.	N/A
Restore Factory Defaults	Reset	Resets all options in all menus to their factory default settings.	N/A

# **Unit information**

Option	Settings	Description	Default setting
H8 S/W	N/A	Allows the unit's software revision to be viewed.	N/A
Main Board ID	N/A	Allows the unit's mainboard hardware revision to be viewed.	N/A
Front Panel Board ID	N/A	Allows the unit's front panel hardware revision to be viewed.	N/A
Phono Board ID	N/A	Allows the unit's phono stage hardware revision to be viewed.	N/A
Input 6 type	Line Level Phono MM Phono MC	Not adjustable – for information only. Reconfigurating, if required, is implemented via a hardware adjustment which can be carried out by your Linn retailer.	Phono MM

# TECHNICAL SPECIFICATIONS

Connector types				
Headphone Aux input Line outputs Tape outputs Line inputs Speaker outputs	3.5 mm jack RCA Phono 4mm Banana / Binding Post			
Input impedance				
MM phono input Line inputs Aux input	48 kΩ 68 pF 10 kΩ 100 kΩ			
Input voltage				
MM phono input Line inputs Aux input	70 mV peak @ 1cm/sec 1kHz 8.5 V peak, 6 V rms 4.5 V peak, 3.1 V rms			
Phono stage gain				
MM phono input	+40 dB (x 100) @ 1 kHz			
Output impedance				
Line out Tape out Headphones	300 Ω 300 Ω 11 Ω			
Output voltage				
Line outputs Tape outputs Headphones	8.8 V peak, 6 V rms 8.8 V peak, 6 V rms 8.8 V peak, 6 V rms			
Output offset				
Line outputs Tape outputs Headphones Speaker outputs	< 2 mV < 2 mV < 2 mV < 3 mV			

Signal-to-noise ratio			
Line inputs MM phono input	Better than -120 dB Better than -90 dB		
Channel balance	Better than +/- 0.2 dB		
Channel separation			
Line inputs MM phono input	Better than -106 dB Better than -90 dB		
Gain range	-80 dB - +20 dB		
Gain resolution	0.5 dB		
Unity gain volume	0 dB = volume 80		
Dynamic range	120 dB		
Damping factor	Greater than 170		
Signal level for clipping	755 mV rms		
Harmonic distortion	< 0.01%		
Load tolerance	Unconditionally stable into all loudspeaker loads		
Frequency response			
Pre-amp Power-amp	2.5 Hz – 170 kHz (-3 dB) 2.5 Hz – 48 kHz (-3 dB)		
Speaker output voltage	28.8 V peak		
Power consumption			
Standby Operational Maximum continuous	20 W 30 W 300 W		
Mains supply voltage (auto-ranging)	100 – 120 V ac (±10%) 50 – 60 Hz 220 – 240 V ac (±10%) 50 – 60 Hz		

Fuse replacement	250 V, T10 A
Dimensions	381 mm (W) x 80 mm (H) x 355 mm (D) 15 1/16" (W) x 3 1/8" (H) x 14" (D)
Shipping dimensions	520 mm (W) x 220 mm (H) x 490 mm (D) 20 1/4" (W) x 8 3/4" (H) x 19 1/4" (D)
Weight	4.90 kg 10.78 lb
Shipping weight	6.50 kg 14.33 lb
Control	6 control keys on front panel Remote controllable (handset supplied)

# **GUARANTEE AND SERVICE**

This product is guaranteed under the conditions which apply in the country of purchase and your statutory rights are not limited. In addition to any statutory rights you may have, Linn undertake to replace any parts which have failed due to faulty manufacture. To help us, please ask your Linn retailer about the Linn warranty scheme in operation in your country.

In parts of Europe, the United States of America and some other markets, extended warranty may be available to customers who register their purchase with Linn. A warranty registration card is included with the product and should be returned to Linn as soon as possible. Alternatively, you can register your warranty online at www.linn.co.uk.

#### WARNING

Unauthorised servicing or dismantling of the product invalidates the manufacturer's warranty. There are no user serviceable parts inside the product and all enquiries relating to product servicing should be referred to authorised retailers only.

#### Technical support and information

For technical support, product queries and information, please contact either your local retailer or one of the Linn offices opposite.

Full details of your local retailer/distributor can be found on the Linn web site: www.linn.co.uk

#### Important

Please keep a copy of the sales receipt to verify the purchase date of the product.

Please ensure that your equipment is insured by you during any transit or shipment for repair.

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