AKURATE DS

DIGITAL STREAM PLAYER

OWNER'S MANUAL

AKURATE DS

OWNER'S MANUAL

COPYRIGHT AND ACKNOWLEDGEMENTS

Pack 1369/E

AKURATE DS

OWNER'S MANUAL

CONTENTS

AKURATE DS

OWNER'S MANUAL

INTRODUCTION

Since Linn's inception with the production of the Sondek LP12 turntable in 1972, our aspiration has been to get you as close to the sound of the original recording as possible.

Over the many years since, we have remained committed to this goal by exploiting the latest developments in hi-fi technology. The Akurate DS digital stream player exemplifies this commitment and dedication. Developed from our flagship Klimax DS player, it utilises sophisticated processing of the digital audio signal drawn from an external storage device, to produce crystal-clear, error-free audio. The advanced circuitry, combined with an absence of any mechanical noise due to their being no moving parts, ensures the Akurate DS delivers astounding musical performance. The Linn GUI is a simple and fun interface to use, and provides instant access to your CD and downloaded music collection, and SHOUTcast Internet radio.

In partnership with the Akurate Kontrol pre-amplifier, Akurate power amplifiers and Akurate loudspeakers, we are certain that you will be astonished by the quality of your Linn system now, and in the years to come.

AKURATE DS

OWNER'S MANUAL

INSTALLATION

For full installation instructions see the *System Installation and Setup Manual* on the supplied CD-ROM.

Important:
The Akurate DS player must be installed by an engineer/technician trained in networks and network security. Linn Products Limited cannot be held responsible for any network security compromise and/or loss of data due to improper installation.

Unpacking
The Akurate DS player is supplied with the following:
- handset
- 2 x AAA batteries for the handset
- 1 pair of black interconnect cables
- RS232 lead
- mains lead
- CD-ROM (contains system software, installation manual and owner's manual)

We recommend that you retain all packaging in case you need to transport the Akurate DS at a later date.

Positioning
You can position your Akurate DS almost anywhere you find convenient, but please consider the following points:
- The unit should be placed on a flat, stable and rigid surface.
- Do not position the unit where sunlight can shine (whether directly, diffused or reflected) on its display as the infra-red (IR) radiation in sunlight will be picked up by the unit's IR remote sensor and this can adversely affect its operation. Similarly, some electrical devices such as plasma TVs, fluorescent lights and energy saving lamps can emit IR which can likewise affect the operation.

- For best performance do not stack the unit with other products. Ideally, position the unit on a shelf by itself or, if proximity to other products is unavoidable, positioning side-by-side is preferable to stacking.
- The unit should not be situated above, or directly adjacent to, sources of heat such as radiators, power amplifiers, etc. Nor should it be enclosed in a cabinet with such devices.
- The unit itself produces very little heat; however it is advisable to allow a little space to the sides, rear and above the unit (ideally 10 cm / 4") for air circulation which will allow any heat to dissipate.

Cleaning
Disconnect the Akurate DS from the power supply before cleaning. Remove dust and fingerprints with a soft, dry cloth.

Connecting to the mains supply
The Akurate DS contains an automatic internal mains voltage switch. This switch operates on all worldwide mains voltages from 100 V to 240 V. The unit can be connected to any worldwide mains voltage with no adjustment.

This unit must be earthed. Use the earthed moulded mains lead supplied, or if no mains earth is available, ensure the product's EARTH GROUND connector is connected to an earthing terminal.

AKURATE DS

OWNER'S MANUAL

OPERATION

Playing music

If you are using a Linn pre-amplifier with the Akurate DS, switch on the pre-amplifier first and wait for it to show the ⏻ (standby) symbol before powering-up the Akurate DS. When the Akurate DS is switched on, a flashing dot will appear on the display. Wait until the dot is replaced by the ⏻ symbol before following the steps below.

Selecting music

1. Turn on your control device. If the Linn GUI does not run automatically, double-click the Linn GUI icon.

2. From the Room window, select the appropriate room. This will automatically bring your Akurate DS (and Linn pre-amplifier) out of standby.

3. From the Source window, select 'Akurate DS'.

4. From the Library window, select the storage device that contains the music you want to listen to by tapping it twice.

AKURATE DS

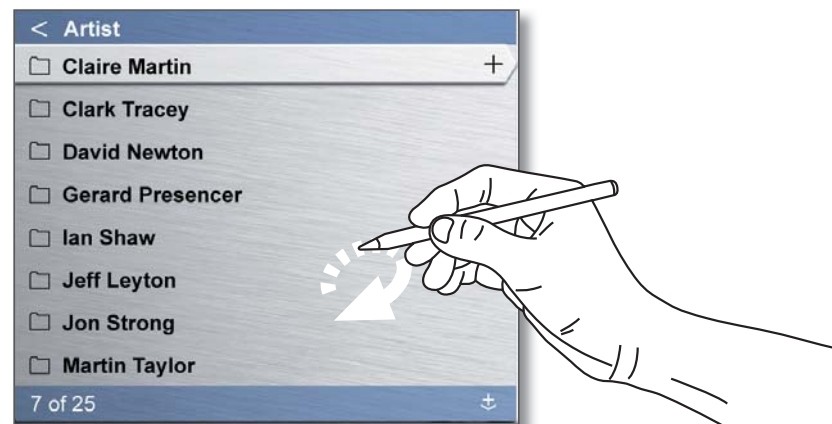**OWNER'S MANUAL**

5. Tap 'Music' twice.

   Note:
   When using the Linn GUI, tap `<` in the top of the left-hand window to return to the previous screen.

   ```
   <  Media Server 2
   📁 Music



   1 of 1                                    ⊥
   ```

6. Select the category you want to browse by tapping it twice.

   ```
   <  Music
   📁 Album
   📁 Artist
   📁 Artist/Album
   📁 Playlist
   📁 Genre



   2 of 5                                    ⊥
   ```

7. Scroll to the music you want to play by placing the control device's stylus in the left-hand window and 'drawing' circles (clockwise to scroll downwards, anti-clockwise for upwards).

   ```
   <  Artist
   📁 Claire Martin                          +
   📁 Clark Tracey
   📁 David Newton
   📁 Gerard Presencer
   📁 Ian Shaw
   📁 Jeff Leyton
   📁 Jon Strong
   📁 Martin Taylor
   7 of 25                                    ⊥
   ```

8. The folder symbol 📁 indicates that an item contains sub items (e.g. a folder will be shown next to the name of an album to indicate that the album's tracks are held within the folder). Tap an item to highlight it, then tap it again to reveal the contents of the folder.

9. To play an album, track, or all tracks by a particular artist (depending on the view you are currently on), tap the selection to highlight it, then tap ▶ .

   Your selection will move to the Current Playlist window and playback will begin.

   Alternatively, tap the + symbol to add the selection to the Current Playlist window. To start playback, tap the selection within the Current Playlist window to highlight it, then tap ▶ .

AKURATE DS

OWNER'S MANUAL

10. Continue to add selections to the Current Playlist by highlighting artists/albums/tracks and tapping the + symbol. You can add new selections to the bottom of the playlist, or place them after the currently playing track (if playback has not started they will be added to the top of the playlist). The icon shown at the bottom-right of the left-hand window determines where the selection will be placed. This icon ⬇ means that the selection will be placed at the bottom of the playlist. This icon ⮞ means that the selection will be placed after the currently playing track. Tap the icon to change it.

Note:
Up to 1,000 tracks can be added to the Current Playlist. The bar at the bottom of the Current Playlist window tells you how many tracks are in the playlist.

Controlling playback

Control playback ▶ ❙❙ ■ ◀◀ ▶▶ by using the icons.

While a track is playing, tapping ▶ will restart it, unless another selection is currently highlighted in which case the highlighted track will begin playing.

Tap on the progress bar to jump forward or backwards within the currently playing track.

Note:
You can also control playback using the front panel keys or the supplied handset, see *Front panel and handset*, pages 7 to 9.

AKURATE DS

OWNER'S MANUAL

Current Playlist

Scroll up and down through the playlist by placing the control device's stylus in the Current Playlist window and 'drawing' circles (clockwise to scroll downwards, anti-clockwise for upwards).

Play any track in the Current Playlist by highlighting it, then tapping ▶. Playback of the playlist will continue from that point.

Note:
The tracks in the Current Playlist will remain there if the Akurate DS is put into then brought out of standby.

To delete individual tracks from the playlist:
- Tap on the track you wish to delete.
- Tap the × symbol next to the track's title.

To delete the entire playlist:
- Tap the ⊠ symbol at the top-right of the Current Playlist window.

Volume

You can use the [🔊] [🔉] [🔇] icons on the Linn GUI to control volume if your Akurate DS is connected to a Linn pre-amplifier.

Note:
You can also adjust the volume using the handset supplied with the Akurate DS or Linn pre-amplifier, or the pre-amplifier's front panel keys.

Standby

To put the Akurate DS into standby using the Linn GUI, tap the source/room key at the top-right of the GUI, then tap the ⏻ icon for the appropriate room in the left-hand window.

The Akurate DS can also be put into or out of standby using the ⏻ key on the front panel or handset.

Note:
The tracks in the Current Playlist will remain there if the Akurate DS is put into then brought out of standby.
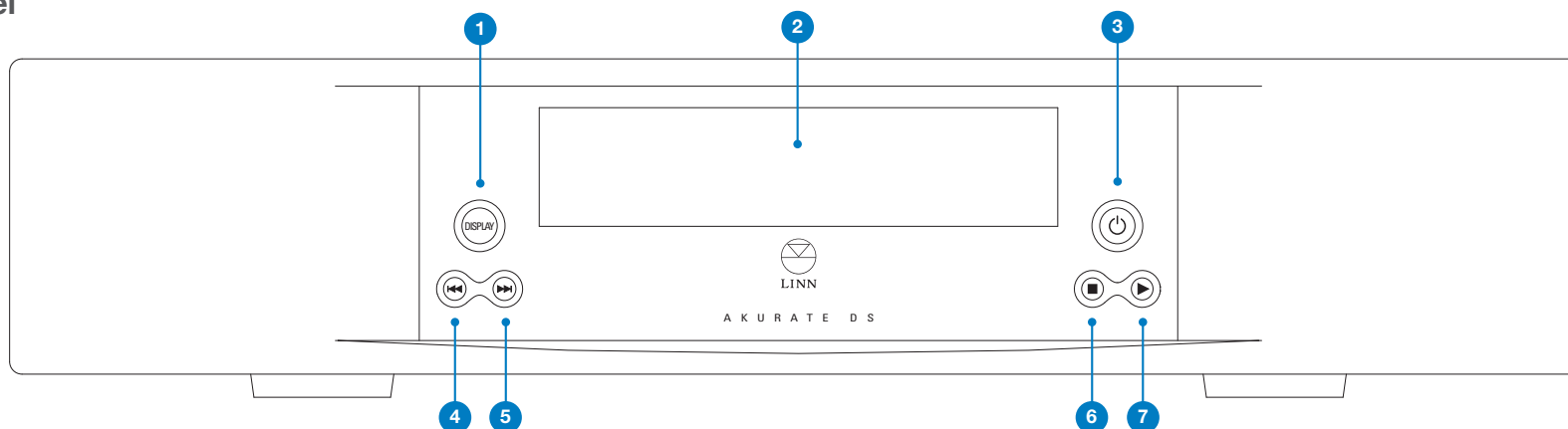
AKURATE DS

OWNER'S MANUAL

Front panel and handset

Once you have added tracks to the Current Playlist, you can use the front panel keys or supplied handset to control playback.

Front panel

1. **DISPLAY** Cycles through the various display modes

2. **Front panel display**

3. ⏻ Enters/exits standby

4. ⏮ Previous track selection. Press and hold to skip backwards through the tracks in the Current Playlist

5. ⏭ Next track selection. Press and hold to skip forwards through the tracks in the Current Playlist

6. ■ Stops playback

7. ▶ Starts playback of the Current Playlist. If playback has been started and then stopped, pressing ▶ will begin playback from the start of the last track played. During playback, a quick press of ▶ will pause playback. Press ▶ again to resume playback. Press and hold ▶ for two seconds to replay the current track
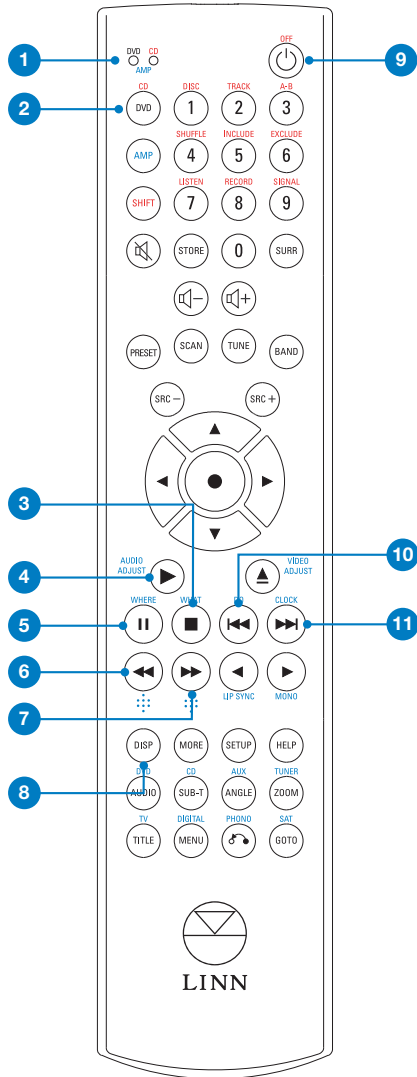
Note:
You can control playback of the Current Playlist using the handset or front panel, even if the Linn GUI has been turned off.

AKURATE DS

OWNER'S MANUAL

Handset

1. **LEDs**   Indicate the mode of the handset when a key is pressed

2. **DVD**   Puts the handset into Disc mode. The handset should be in Disc mode to operate the Akurate DS

3. ■   Stops playback

4. ▶   Starts playback of the Current Playlist. If playback has been started and then stopped, pressing ▶ will begin playback from the start of the last track played

5. ‖   Pauses playback

6. ◀◀   Fast search backwards

7. ▶▶   Fast search forwards

8. **DISP**   Cycles through the various display modes

9. ⏻   Enters/exits standby

10. ◀◀   Previous track selection

11. ▶▶   Next track selection

Keys and functions of the handset not listed above do not function with the Akurate DS player but may with other Linn products.

Note:
You can control playback of the Current Playlist using the handset or front panel, even if the Linn GUI has been turned off.

AKURATE DS

OWNER'S MANUAL

Handset modes

The handset has been designed to provide simpler, more intuitive control over a range of Linn products. In order to achieve this, the handset can be operated in various handset modes which assign differing functionality to some of the keys. The handset mode is indicated by the LEDs at the top-left of the handset, which will light when a key is pressed.

The handset should be used in Disc mode for operating the Akurate DS.

Disc mode – press the **DVD** key to set the handset to Disc mode. The DVD functions will be assigned as the primary handset keys and the DVD LED will light when a key is pressed.

Note:
Volume control is always available, regardless of the mode the handset is in.

If you are using a Linn pre-amplifier or AV system controller with your Akurate DS, you can use the same handset to operate both Linn products. For some functionality you may have to use the **DVD** and **AMP** buttons to switch between handset modes.

Front panel display

Key to symbols shown on the front panel display:

▶	**Play**
❚❚	**Pause**
■	**Stop**
▶▶❙	**Skip to next track**
❙◀◀	**Skip to previous track**
▶▶	**Fast search forwards**
◀◀	**Fast search backwards**
⏻	**Standby**

The front panel of the Akurate DS displays information relating to the currently playing track. Repeatedly press **DISP** on the handset, or **DISPLAY** on the front panel, to cycle through the information in the following order:

Elapsed track time
Remaining track time
Track audio data (sample rate/bit depth)
Track encoding data (kilobits per second/format)
Track number within total number of tracks in the playlist
Track title *
Artist *
Album title *

Regardless of the information shown on the display, you can see the currently playing track title, artist and album title by pressing and holding **DISP** or **DISPLAY** for two seconds.

Whenever a new track begins playing (or playback has been stopped then restarted), the track title, artist name and album title will scroll across the display.** While the text is scrolling, pressing **DISP** or **DISPLAY** will return the display to the previous view.

* If the text is too long to appear in full on the display, press and hold **DISP** or **DISPLAY** for two seconds to see the whole text scroll.

** This feature can be turned off or on via the Linn Config application supplied with the Akurate DS.

Adding music to the library

If you wish to add a CD to your music library, insert the CD into the PC that is connected to your storage device (NAS) and, using the ripping software configured by your Linn installer, rip the CD. Once the CD has been ripped it will automatically be added to the music library on the Linn GUI.

AKURATE DS
OWNER'S MANUAL

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.

Linn Products Limited
Glasgow Road, Waterfoot, Eaglesham, Glasgow G76 0EQ, Scotland, UK
Phone: +44 (0)141 307 7777
Fax: +44 (0)141 644 4262
Helpline: 0500 888909
Email: helpline@linn.co.uk
www.linn.co.uk

Linn Incorporated
8787 Perimeter Park Boulevard, Jacksonville, FL 32216, USA
Phone: +1 (904) 645 5242
Fax: +1 (904) 645 7275
Helpline: 888-671-LINN
Email: helpline@linninc.com
www.linninc.com

Linn Deutschland GmbH
Hühnerposten 1d, D-20097 Hamburg, Deutschland
Phone: +49-(0) 40-890 660-0
Fax: +49-(0) 40-890 660-29
Email: info@linngmbh.de
www.linn.co.uk

THIRD-PARTY COPYRIGHT INFORMATION

The Akurate DS uses software from rtems.com, the Xiph.org foundation, and FreeBSD.

Rtems.com:
LICENSE INFORMATION
RTEMS is free software; you can redistribute it and/or modify it under terms of the GNU General Public License as published by the Free Software Foundation; either version 2, or (at your option) any later version. RTEMS is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details. You should have received a copy of the GNU General Public License along with RTEMS; see file COPYING. If not, write to the Free Software Foundation, 675 Mass Ave, Cambridge, MA 02139, USA.

As a special exception, including RTEMS header files in a file, instantiating RTEMS generics or templates, or linking other files with RTEMS objects to produce an executable application, does not by itself cause the resulting executable application to be covered by the GNU General Public License. This exception does not however invalidate any other reasons why the executable file might be covered by the GNU Public License.

A copy of the GPL is included on the accompanying CD-Rom in the licenses directory.

Information on obtaining access to the GPL code used in this product is available at http://oss.linn.co.uk

Alternatively, write to Open Source Software Licensing, Linn Products Limited, Glasgow Road, Waterfoot, Eaglesham, Glasgow G76 0EQ, Scotland, UK

Flac from the Xiph.org foundation:
Copyright © 2000,2001,2002,2003,2004,2005,2006,2007 Josh Coalson

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
• Neither the name of the Xiph.org Foundation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE FOUNDATION OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

AKURATE DS