## azur 640H

Music server User's manual 2





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## Introduction

Thank you for purchasing this Cambridge Audio 640H Music Server. In the last few years hard disk technology and compressed audio formats such as MP3 and AAC have revolutionised the way we listen to and store music. Yet despite these technological advances, so far there hasn't been a solution which combines true audiophile standards of reproduction with a high capacity storage server in a cost-effective package. This, we hope you'll agree, changes with the launch of the 640H with AudioFile<sup>TM</sup> – a suite of proprietary embedded software developed to manage storage, transfer and playback of music in a real hi-fi environment.

#### About this unit

AudioFile is seen for the first time in the 640H Music Server, where you can appreciate the quality of music reproduction you've come to expect from Cambridge Audio matched to a capacious 160GB AV quality hard drive and a high speed CD burner. With such a large hard drive available, approximately 300 albums can be stored in uncompressed format for the highest sound quality.

Other features include a Hi-fi DAC board using the same Wolfson DAC and proprietary balanced virtual earth filter technology as used in our Azur CD players; an Audiophile oversize toroidal transformer where most competitors use a PC power supply; and no fewer than seven linear regulated PSUs (Power Supply Units) for all the critical audio stages, DAC, clock etc.

Once your music is stored in uncompressed or compressed MP3 format (where you can choose the compression level) you can form your own personal music library to make music compilations for use in your home, burn to CD or transfer to portable media players. Share uncompressed or compressed music files via a wired or wireless network and playback music from your PC or Mac (stored in programs such as iTunes<sup>™</sup> or Windows Media Player) or other network devices via the 640H.

The 640H can also stream to and from other AudioFile based units in your home or even your PC/Mac via wired or wireless network technology using ethernet/Wi-Fi adaptors. On-board internet radio gives you access to stations across the world, and unlike a PC, the 640H offers virtually instant start-up and shut-down from Standby mode.

To access the comprehensive on-screen display menus, it is recommended you connect your 640H to a TV (via Composite, S-Video or VGA OSD outputs). An Azur Navigator remote control is also provided, giving full remote control of your 640H in an attractive and easy to use handset.

Finally, to allow seamless integration with multi-room entertainment systems, a Control Bus input and output have been fitted, plus an IR emitter input and RS232C.

Your 640H can only be as good as the system it is connected to. Please do not compromise on your amplifier, speakers or cabling. Naturally we particularly recommend amplification from the Cambridge Audio Azur range, which have been designed to the same exacting standards as this unit. Your dealer can also supply excellent quality Cambridge Audio interconnects to ensure your system realises its full potential.

Thanks for taking the time to read this manual, we do recommend you keep it for future reference.

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Matthew Bramble Technical Director

# 640H

## End User Licence Agreement ("EULA")

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  upgrade to the DEVICE, any transfer must also include any prior
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- EXPORT RESTRICTIONS. You acknowledge that SOFTWARE is subject to U.S. and European Union export jurisdiction. You agree to comply with all applicable international and national laws that apply to the SOFTWARE, including the U.S. Export Administration Regulations, as well as end-user, end-use and destination restrictions issued by U.S. and other governments.
- USE RESTRICTIONS. This DEVICE is not intended for use in medical, life saving, or life sustaining applications and no liability whatsoever is accepted by Cambridge Audio, nor by the SOFTWARE SUPPLIERS, for any failure of the DEVICE when used in this manner.

## **Technical specifications**

Hard Drive	160GB hard drive
Processor	VIA C3 1GHz
D/A Converter	Wolfson WM8740 24-Bit/192kHz capable
Frequency Response	20Hz - 20kHz +/- 1dB (PCM)
THD	<0.008% @ 1kHz 0dB (PCM)
S/N Ratio	>104 dB 'A' weighted (PCM)
Playback Formats	<ul> <li>Uncompressed PCM 44.1kHz / 16-Bit 48kHz / 16-Bit</li> <li>Windows Media Audio (.wma) 32, 48, 64, 96, 128, 160, 192 kbps CBR or VBR, Voice</li> <li>Fraunhofer MPEG-1 Layer 3 (.mp3) 48, 96, 128, 160, 192VBR, 192CBR and 320kb</li> <li>Advanced Audio Coding (.aac)</li> <li>Microsoft MPEG-1 Layer 1</li> <li>Microsoft MPEG-1 Layer 2</li> <li>Waveform Audio (.wav)</li> <li>Sound File (.snd)</li> <li>Unix Audio (.au)</li> <li>Audio Interchange File Format (.aif, .aiff, .aifc)</li> </ul>
Input Voltage	UK/EU/AU 230V AC ~ 50Hz CU 115V AC ~ 50-60Hz
Maximum Power Consumption	70W
Dimensions - H x W x D	80 x 430 x 315mm (3 x 17 x 12.4")
Weight	8.0kg (17.6Lbs)
Connections	1 x Ethernet 3 x USB V2.0/1.1 1 x PS/2 keyboard 1 x RS232C 1 x IR emitter in and out (modulated) 1 x Control Bus in and out (unmodulated) 1 x Composite video 1 x S-Video 1 x VGA 1 x IEC mains inlet 1 x SPDIF digital out 1 x Optical digital out

Visit www.cambridge-audio.com and register to receive notification of future hardware and software releases.

This guide is designed to make installing and using this unit as easy as possible. Information in this document has been carefully checked for accuracy at the time of printing; however, Cambridge Audio's policy is one of continuous improvement, therefore design and specifications are subject to change without prior notice.

For the latest version of this manual please visit:

www.cambridgeaudio.com/support.php

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## **Limited warranty**

Cambridge Audio warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below). Cambridge Audio will repair or replace (at Cambridge Audio's option) this product or any defective parts in this product. Warranty periods may vary from country to country. If in doubt consult your dealer and ensure that you retain proof of purchase.

To obtain warranty service, please contact the Cambridge Audio authorised dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your Cambridge Audio product, it can be returned by your dealer to Cambridge Audio or an authorised Cambridge Audio service agent. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a Cambridge Audio authorised dealer. You may call Cambridge Audio or your local country Cambridge Audio distributor to confirm that you have an unaltered serial number and/or you purchased from a Cambridge Audio authorised dealer.

This Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than Cambridge Audio or a Cambridge Audio dealer, or authorised service agent which is authorised to do Cambridge Audio warranty work. Any unauthorised repairs will void this Warranty. This Warranty does not cover products sold AS IS or WITH ALL FAULTS.

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#### Plug Fitting Instructions (UK Only)

The cord supplied with this appliance is factory fitted with a UK mains plug fitted with a 3 amp fuse inside. If it is necessary to change the fuse, it is important that a 3 amp one is used. If the plug needs to be changed because it is not suitable for your socket, or becomes damaged, it should be cut off and an appropriate plug fitted following the wiring instructions below. The plug must then be disposed of safely, as insertion into a mains socket is likely to cause an electrical hazard. Should be fitted as shown in this diagram. The colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug. Connect them as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter 'N' or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked BLUE with the letter 'L' or coloured RED.

with the letter 'L' or coloured RED. The wire which is coloured GREEN/YELLOW

must be connected to the terminal which is marked with the letter 'E' or coloured GREEN. If your model does not have an earth wire,

then disregard this instruction.

If a standard 13 amp (BS 1363) plug is used, a 3 amp fuse must be fitted, or if any other type of plug is used a 3 amp or 5 amp fuse must be fitted, either in the plug or adaptor, or on the distribution board.

### GREEN/ E YELLOW BLUE N CORD GRIP

## **Safety precautions**

#### **Checking the Power Supply Rating**

For your own safety please read the following instructions carefully before attempting to connect this unit to the mains.

Check that the rear of your unit indicates the correct supply voltage. If your mains supply voltage is different, consult your dealer.

This unit is designed to operate only on the supply voltage and type that is indicated on the rear panel of the unit. Connecting to other power sources may damage the unit.

This equipment must be switched off when not in use and must not be used unless correctly earthed. To reduce the risk of electric shock, do not remove the unit's cover (or back). There are no user serviceable parts inside. Refer servicing to qualified service personnel. If the power cord is fitted with a moulded mains plug the unit must not be used if the plastic fuse carrier is not in place. Should you lose the fuse carrier the correct part must be reordered from your Cambridge Audio dealer.

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the service literature relevant to this appliance.

The crossed-out wheeled bin is the European Union symbol for indicating separate collection for electrical and electronic equipment. This product contains electrical and electronic equipment which should be reused, recycled or recovered and should not be disposed of with unsorted regular waste. Please return the unit or contact the authorised dealer from whom you purchased this product for more information.



#### Approvals



This product complies with European Low Voltage (73/23/EEC) and Electromagnetic Compatibility (89/336/EEC) Directives when used and installed according to this instruction manual. For continued compliance only Cambridge Audio accessories should be used with this product and servicing must be referred to qualified service personnel.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER AUTHORITY TO OPERATE THE EQUIPMENT.

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:

- Re-orient 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.

## Important safety instructions

Please take a moment to read these notes before installing your 640H, as they will enable you to get the best performance and prolong the life of the unit. We advise you follow all instructions, heed all warnings and keep the instructions for future reference.

#### Ventilation

IMPORTANT - The unit will become hot when in use.

This unit has a powerful processing engine that naturally generates heat. The outer chassis will therefore be hotter than other hi-fi components. This is quite normal and will not affect performance or safety.

Please ensure there is ample ventilation (at least 10cm clearance all round). Do not put any objects on top of this unit. Do not situate it on a rug or other soft surface and do not obstruct any air inlets or outlet grilles. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not stack multiple units on top of each other. Do not place in an enclosed area such as a bookcase or in a cabinet without sufficient ventilation. When in a 19" rack tray, leave 1 unit space (minimum) between units.

Ensure that small objects do not fall through any ventilation grille. If this happens, switch off immediately, disconnect from the mains supply and contact your dealer for advice.

#### Positioning

Choose the installation location carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibration and excessive dust, cold or moisture. Do not place the unit on an unstable surface or shelf. The unit may fall, causing serious injury to a child or adult as well as serious damage to the product. Do not place a DVD player or other equipment on top of the unit.

This unit must be installed on a sturdy, level surface. Do not place in a sealed area such as a bookcase or in a cabinet. Any space open at the back (such as a dedicated equipment rack) is fine however. When a cart is used, use caution when moving the



your dealer for advice. Electronic audio components have a running in period of around a week (if used several hours per day). This will allow the new components to settle down, the sonic properties will improve over this time.

#### Grounding and polarisation

Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

#### Power sources

The unit is of Class 1 construction and must be connected to a Mains socket outlet with a protective earthing connection.

The unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of powersupply to your home, consult your product dealer or local Power Company.

This unit has been designed to be left in Standby mode when not in use, this will increase the life of the amplifier (this is true with all electronic equipment). To turn the unit off completely switch off on the rear panel. If you do not intend to use this unit for a long period of time, unplug it from the mains socket.

#### Power cord protection

The unit must be installed in a manner that makes disconnection of the mains plug from the mains socket outlet (or appliance connector from the rear of the unit) possible. Where the mains plug is used as the disconnect device, the disconnect device shall remain readily operable. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the unit.

Be sure to insert each power cord securely. To prevent hum and noise, do not bundle the interconnect leads with the power cord or speaker leads.

#### Overloading

Do not overload wall outlets or extension cord as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard.

#### Lightning

For added protection during a thunderstorm, or when it is left unattended and unused for long period of time, unplug the unit from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the unit from lightning and power-line surges.

#### Cleaning

To clean the unit, wipe its case with a dry, lint-free cloth. Do not use any cleaning fluids containing alcohol, ammonia or abrasives. Do not spray an aerosol at or near the amplifier. The use of a lens cleaning disc at least once a month can also prolong unit life.

#### Attachments

Do not use attachments not recommended by your dealer as they may cause harm to the unit. Only use the specified attachments/accessories with this unit.

#### Servicing

These units are not user serviceable, never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem. A serious electric shock could result if this precautionary measure is ignored. In the event of a problem or failure, please contact your dealer.

Contact the service department should any of these conditions occur:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the unit.
- If the unit has been exposed to rain or water.
- If the unit does not operate normally after following the operation instructions, adjust only those controls that are covered by the operation instructions.
- If the unit has been dropped or damaged in any way.
- When the unit exhibits a distinct negative change in performance.

#### Important Note



COMPACT This unit has been designed to play compact discs, recordable CDs (CD-R) and re-without CDC (CD-R) bearing the identification logo shown here. No other DIGITAL AUDIO discs can be used. The CD-R/CD-RW discs should contain properly recorded TOC (Table of Contents) information so that they can be played back. This unit can play only the discs recorded in the CD-DA format designed for music reproduction. Do not attempt to play a disc on this unit containing other data, such as a CD-ROM for PCs.

Be aware of plasma screen image retention or "screen-burn" when using your 640H. Always use the "I/O" button to switch off the on-screen display when not using the menu system to change settings etc. LCD or conventional CRT TVs do not suffer from this problem.

## **Rear panel connections**



#### 3. Connections to optional external devices/network

Note: The 640H must be connected to a monitor or TV before it is switched on so that the 640H can detect the connection type being used.

#### (1) Keyboard

Connections for an optional PS/2 keyboard.

#### (2) Monitor

VGA monitor connection.

#### (3) Ethernet

Ethernet port for connecting to a network (see the 'Networking your 640H' section of this manual for more information).

#### (4) USB 1/USB 2

Ports for interfacing to a flash/memory card or storage device. All ports are fully "USB2.0" compliant.

#### (5) S-Video

S-Video (SVHS) TV connection.

#### (6) Composite video

Composite Video (CVBS) TV connection.

#### (7) IR (Infra Red) Emitter In/Out

- In Allows modulated IR commands from multi-room systems to be received by the unit. Commands received here are not looped out of the Control Bus (they are looped out of IR Out).
- Out Loop out of IR modulated commands. Also allows the unit to generate IR commands (for future use).

#### (8) RS232

For custom install use.

#### (9) Control Bus

- In Allows un-modulated commands from multi-rooms systems or other components to be received by the unit.
- Out Loop out for control bus commands to another unit.

#### 10 Toslink Optical Digital output

Use to connect to the input of a separate DAC or digital recording machine. Use a high quality TOSLINK fibre optic interconnect cable designed specifically for audio use.

#### (11) S/P DIF Co-axial Digital output

Use to connect to the input of a separate DAC or digital recording machine. To obtain best results, use a high quality 75 ohm digital RCA interconnect cable (not one designed for normal audio use).

#### (12) Audio In/Out

- In Connect to the line level output terminals of a source device for recording (ie CD input or Aux input etc).
- Out Connect to the line level input terminals on your amplifier.

#### 13 Power On/Off

Switches the unit on and off.

#### (14) Mains Voltage Selector Switch

Switches the mains voltage between 115V and 230V. For use by installer/dealer only.

#### (15) AC power socket

Once you have completed all connections to the amplifier, plug the AC power cable into an appropriate mains socket. IMPORTANT - Do not remove the power cable without switching the 640H off first.

# 640H

## **Front panel controls**



### 1 Standby / On

Switches the unit between Standby mode (indicated by dim power LED) and on (indicated by bright power LED). The unit should be left in standby mode when not in use, particularly if the unit is to perform background compression or if serving content to other playback devices. Press and hold for 5 seconds to fully turn the unit off. If the unit is not going to be used for an extended period of time, it should also be turned off at the rear panel.

### 2 Open / Close

Opens and closes the disc tray allowing you to load a disc. Pressing Play will also close the tray and start the disc.

#### (3) Infrared sensor

Receives IR commands from the supplied Azur remote control. A clear unobstructed line of sight between the remote control and the sensor is required.

#### 4 Play / Pause

Plays the disc, selected album/track or internet radio station. Press to pause if currently playing.

### (5) Stop

Stops the CD, selected album/track or internet radio station currently playing.

#### 6 Skip < >

Allows for skipping between tracks. Press the left button to skip backwards by one track, the right button to skip forwards by one track.

### (7) Record

Allows for ripping of CDs to the hard drive of the 640H.

### (8) Navigator / Select (0)

Press to navigate around the menus. Press the centre Select button to accept the item/function highlighted in the menu.

### (9) USB port

USB connector for interfacing to a "Mass Storage Device" or USB keyboard.

**Note:** Only USB 2.0 certified products with the USB 2.0 logo on them are supported by the 640H. Please either consult the manufacturer of the USB 2.0 product to make sure it is properly certified, or go to **www.usb.org** for a list of approved products, before purchase. We cannot be held responsible for any incompatibility issues.



## **Remote control**

The 640H is supplied with an Azur Navigator remote control that operates both the 640H and Cambridge Audio Azur amplifiers. The remote is important in setting up your 640H Music Server as many of the menus are most easily accessed from the remote. Insert the supplied AAA batteries to activate.

**Note:** The remote may be in Amp mode when first activated. Please refer to the Amp Control section for more information.

#### (b) Standby / On

Switches the unit between On and Standby mode.

#### Open / Close

Opens and closes the disc tray allowing you to load a CD.

#### (1) Alphanumeric buttons

Buttons to enter numbers and text into the editable menu fields. Pressing the button will scroll through the available characters on that button. The 'é' button allows access to accents etc. Press the number '0' button to add a space in any editable text.

#### $(\mathbf{i}_{*})$ Info / Extra characters

Brings up the Now Playing menu which displays information on the currently playing album/artist/radio station etc. When entering text, press this button to access extra punctuation symbols (eg # , ; "/ ? !), like on a mobile phone keypad.

#### Shift Shift

When entering text, press to toggle between capital letters, lower-case letters and numbers.

#### Home

Takes you back to the Main Menu of the 640H operating system.

#### Back

Press to go back to the previous menu page. Also deletes any editable text.

#### Navigation

To navigate around the menus, press the directional arrows. Press the left arrow to move backwards through editable text.

#### **O** Select

Press to accept the item/function highlighted in the menu.

#### Album/Artist/Genre/Playlist/Track/iRadio

Pressing these buttons takes you directly to their respective menu pages. See the 'Getting started with your 640H' section of this Manual for more information on each menu.

### ▶ Play / ■ Stop / ■ Pause

Press the relevant button to play/pause/stop the CD, selected album/track or internet radio station.

#### 🕪 🕪 Skip

Pressing the Skip buttons will skip forward or backwards between tracks.

#### On-screen display (OSD)

Turns the OSD to the connected monitor/screen on or off.



#### **Amp Control mode**



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Genre

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The 640H remote features an Amplifier Control button, that activates a special Amp mode allowing operation of a matching Cambridge Audio Azur amplifier. When pressed, the LED will light up for 7 seconds (to let you know your are in Amp mode), and will then flash when any one of the circled Amp buttons is used (Standby/On, 1 - 8, Volume up/down and Mute). All other remote buttons are inactive when in Amp mode.

To exit Amp mode, press the *Amp Control* button again (LED will light up for one second).

#### (b) Standby / On

 $\ensuremath{\mathsf{Press}}$  to switch the amplifier between On and Standby mode.

#### (1) Numerical buttons 1-8

Press to change the input source of the amplifier.

#### ✓ Solume

Increase or decrease the volume of the amplifier.

#### 🕅 Mute

Mutes the audio of the amplifier. Press again to cancel mute.

#### AV Control mode

The 640H Amp Control mode can alternatively be used to control a connected Azur AV Receiver (ie Azur 540R). To put the remote into AV mode, first put the remote into Amp mode then press and hold the *Track* button. After 12 seconds the blue LED will flash twice. Amp mode will now send AV receiver instructions instead of Azur amplifier ones.

To put the remote back into normal Amp mode, simply hold the *Track* button down again (the LED will flash once).

#### (b) Standby / On

 $\ensuremath{\mathsf{Press}}$  to switch the AV receiver between On and Standby mode.

#### (1) Numerical buttons 1-8

Press one of the circled Amp buttons to change the input source to the AV receiver:

1 - DVD, 2 - Video1, 3 - Video 2, 4 - Video 3, 5 - Tuner mode (toggles between AM and FM), 6 - Tape/MD/CDR, 7 - CD/Aux, 8 - 6.1 Direct In

### ✓ Solume

Increase or decrease the volume of the AV receiver output.

### • Tuning

Press the right arrow to increase tuner frequency, press the left arrow to decrease tuner frequency.

#### **O** Select

Press to shift through the different AV receiver sources.

### 🖲 Mute

Mutes the audio on the AV receiver. Press again to cancel mute.

640H

## Introduction to AudioFile™

The AudioFile operating system of the 640H is easy to follow and use, and has been designed to allow you to get the most out of your 640H.

Nain Menu Nusic librar CD

### Menu system

A basic navigational menu is displayed on the front of the 640H, but the full menu system is accessible by connecting your 640H to a monitor or TV. To move around the menus, simply use the directional arrow buttons (on your remote control or front panel of the unit) and press the centre Select button to accept your selection or progress to a sub-menu.

From the Main Menu you can access the following menus:

- Music library Access the various menus to play and record music, create and organise playlists and search for any music content that is available to the 640H (either on the 640H or via a connected music storage device/computer).
- CD Access CD functions such as playing, storing and burning.
- iRadio With internet access listen to internet radio stations.
- Line in Access and record from a connected device which has phono out sockets (eg a DAB tuner).
- Info/now playing Displays the music currently playing on the 640H.

Settings - Access the Information, User and System menus.

Data entry into these menus is available from the remote control, but It is advised to connect a keyboard (USB or PS/2 types can be used) if you wish to enter a large amount of track and/or album names.

#### Network features

To get the most from your 640H you can connect it to your PC/Mac and the internet. This will allow you to:

- · Automatically download album/track details when your rip a CD
- · Archive and store your music on your PC/Mac
- Transfer album cover art onto the 640H
- · Share music with your PC/Mac
- · Access to internet radio stations

For more information and the latest news on the AudioFile software, please visit the Cambridge Audio website: **www.cambridge-audio.com** 

### Getting started with your 640H

**Note:** When you turn on the 640H for the first time you will see an advisory message with the address for the Windows XP patch that is required on your PC if you want to network effectively with the 640H (Fig. 1). This page will be displayed every time you start up until you select "Accept".

Home	IMPORTANT
Accept	For operation with your networked PC it is essential you download the following Windows XP patch:
	http://support.microsoft.com/kb/896427

#### Playing a CD

After you have made all the connections to the 640H and turned the unit on, the first menu screen displayed is the Main Menu. To play a CD, open the CD tray, insert a CD and the CD menu will open automatically (Fig. 2).

Music	Music library
Settings	CD
	iRadio
	Line in
	Info/now playing

There is a short delay before you can play the CD whilst the 640H searches for CD details. If there is an internet connection the album title and track names will be displayed. If you are not connected to the internet it will display "CD Album X". Once the CD has loaded it can then be played by pressing the *Play* button. When loaded, all tracks are automatically selected to be played. To unselect, choose CLEAR ALL and then you can select specific/individual tracks to be played.

#### Storing CDs

To copy the CD onto the hard drive of the 640H, select the STORE CD option in the CD menu. From here, the whole album or individual tracks can be stored if desired. Continue to the STORE CD option and select START to begin copying to the hard drive. Alternatively, the *Record* button on the front panel may be used. Before storing to the hard drive, you may want to choose the file compression format. CD's can also be played as they are ripped onto the 640H's hard drive. The first track will start to play after it has been ripped.

## Getting started with your 640H continued

#### File compression formats

Music being stored on the 640H can be stored in a number of different file formats (Fig. 3). To choose the compression format, go to CD/STORE CD/FORMAT. The default is "Uncompressed", meaning the CD will be copied in it's original format, the recommended highest quality format.

Back	
Details	MP3, 320(6)/s
Track names	• MP3, 256kb/s
format	O MP3, 192kb/s
Options	MP3, 160kb/s
Store CD	MP3, 128kb/s

The lower the MP3 file format chosen, the more the music is compressed, reducing the file size and allowing more music to be stored on the hard drive (ie from 300 uncompressed songs to 30,000 compressed songs).

Note: The lower the file size, the more the sound quality is effected.

#### **Background compression**

As ripping and compressing music to the hard drive of the 640H can take some time, a 'Background compression' feature is available (Fig. 4).

etails	
rack names	
ormat	
ptions	
tore CD	

After choosing a compression format, the 640H automatically stores the music as "uncompressed" and the "compressing" process will take place when the 640H is put into Standby mode ("Background compression"). For example, the unit will compress the music overnight when you are not using the 640H. If you want to compress the file immediately, background compression can by disabled by going to STORE CD/OPTIONS and unselecting this option. During this process, "Compressing" will appear on the front of the 640H. If the unit is turned on during this time, background compression will stop, the current track being compressed will stop, and will start compressing again from the beginning of that track when returned to Standby mode. If multiple albums are being compressed, each album will not become available until all tracks in the album is compressed.

#### Naming CDs

If you do not have internet access or are storing "home-made" CDs, the details of these CDs will be need to be entered manually into the 640H. It is advisable to connect a keyboard to the 640H for manual data input, and a list of keyboard shortcuts is provided:

Keyboard shortcut	Function
F1	Play
F2	Pause
F3	Stop
F4	Skip backwards one track
F5	Skip forward one track
F6, F7	No function
F8	Mute
F9	CD tray open/close
F10	INFO/NOW PLAYING screen
[, ]	Fast rewind/fast forward (INFO/NOW PLAYING screen only)
<arrow> keys</arrow>	Navigation (as on remote control)
Enter	Select
Home	Home (return to main menu)
Back space	Back
Page Up/Down	Pages up and down in a menu list
Insert	Shortcut to the LOOK IN menu
Pause/Break	Shortcut to the RESCAN LOCATION menu

When connected to the internet (refer to the 'Networking your 640H' section of this manual for more information), the 640H automatically searches for the genre, track, artist and album names for the loaded CD (original CDs only). If the CD is then stored onto the 640H, so are these CD details.

When the CDs details are being searched for on the internet, it is possible that more than one set of album details may be returned. This is shown in the CD/ALBUM ID option (Fig. 5). Scroll through the available Album ID's, choose the one you prefer, and then press STORE CD to accept that choice. Once you have stored some CDs on your 640H, these can now be accessed through the MUSIC LIBRARY menu.

Back	▶ 1. Chances	4:50
Play	2. Half Light	3:41
Album ID (2 of 3)	3. Tourist	3:57
Shuffle: off	4. Trading Air	4:27
Repeat: off	5. Wires	4:20
Clear all	6. If I Found Out	5:02
Store CD	▶ 7. Yesterday Threw Everythi	3:45
	8. Street Map	4:38
	9. Modern Mafia	2:45

You can also download album/track names from CDs that were ripped when no internet connection was available. Select the album/track and select the EDIT DETAILS option and choose IDENTIFY.

#### **Music Library Menus**

The Music Library is the music management system of the 640H (Fig. 6), allowing you to select and play your music through a number of different menu categories.



#### Look in...

It is possible to have multiple locations from external sources in your 640H (e.g. networked PC, external hard drive). Please refer to the 'Connecting an external portable device via USB' section of this manual for more information.

#### Genres

Choose music by genre (eg blues, rock, classical). Genres are preassigned when you are connected to the internet, or you can manually enter in the genre to your own loaded playlists.

#### Artists

Choose by artist name. Names are displayed alphabetically. By selecting a specific artist from MUSIC LIBRARY/ARTIST and then selecting MUSIC LIBRARY/TRACK, all of the tracks (or albums by selecting MUSIC LIBRARY/ALBUM) by that artist can then be selected and played.

#### Albums

Choose by album name.

#### Choose Tracks

Choose by track title.

Simply navigate through the selected menu, choose the album or track you want and select the PLAY option (Fig. 7).

Back	▶ 1. Chances	4:50
Play	2. Half Light	3:41
Shuffle: off	<ul> <li>3. Tourist</li> </ul>	3:57
Repeat: off	<ul> <li>4. Trading Air</li> </ul>	4:27
Clear all	5. Wires	4:20
Freate CD	6. If I Found Out	5:02
iend to	▶ 7. Yesterday Threw Everythi	3:45
Add to playlist	8. Street Map	4:38
idit details	9. Modern Mafia	2:45

Note: To use the Shuffle and Repeat functions, make sure they are turned to 'On' before you select the track/album you want to repeat/shuffle.

#### **Creating Playlists**

Playlists can be created very easily by selecting tracks from the available content and adding these to a new or "current" playlist. To create a Playlist, simply select the tracks then select ADD TO PLAYLIST (Fig. 8). Once created, a playlist can be organized, renamed, copied, deleted, played, burned to CD, sent to another device e.g. PC etc.



To type in text for naming your playlists you can use your remote or connected keyboard. If using your remote, move to the red field and press *Select*. This field will now turn white and will now allow you to enter text using the alphanumeric buttons. You can scroll through the text available to each button by pressing the button repeatedly, press *Shift* to turn on and off capitals, use 0 to add a space, and *Back* to delete. Pressing the *Select* button will then accept the name of the Playlist.

**Note:** If you want to burn a created playlist to CD, you can only burn the available time length of the blank CD (ie 74 minutes). You may select the blank CD size from the menu.

#### Info/Now Playing

By going to the Main Menu and selecting INFO/NOW PLAYING (or by pressing the *Info* button on the remote) a screen will be displayed that gives you an instant view of what music is being played on your 640H, the file format, a countdown of the time remaining for that track (Fig. 9), and album art if available.



It is also possible to fast forward and rewind through a track from this screen. Press the *Right Arrow* or *Left Arrow* button to begin fast forward or rewind; press either again to speed up the process. Press the *Select* or *Play* buttons to resume play.

**Note:** Track information is also displayed on the LCD on the front of the 640H. If the information cannot be displayed on the LCD, a message will read "See Screen Display", prompting you to connect a TV/Monitor to access the menu's details.

## Getting started with your 640H continued

#### Finding music on the 640H

When your music collection builds up, either through copying CDs to the hard drive, recording from external sources, or downloading music from your PC, you may well end up with many thousands of tracks. Here are some ways to make what you are looking for easier:

1. Within the MUSIC LIBRARY section choose SEARCH. Enter in the details of what you are looking for (often just the first and second letter is required), then choose to search through either genre, artist or album and press *Select* (Fig. 10).

Back	Search for:	ke
Details		
Genres		
Artists		
Albums		
Tracks		

2. To narrow your search, you can also include (or exclude) music that can be "seen" by your 640H. When you connect devices to your 640H, whether another 640H, a PC or a portable storage device, by going to MUSIC LIBRARY/LOOK IN you are provided with a list of these music sources which you can select or unselect to make their music content available or unavailable to your 640H.

For example, the screenshot opposite (Fig. 11) shows that the 640H has been set up to look for music only on a connected media library.

Back	Bedroom
Look in	Flash card
Genres	O Media library
Artists	O PC
Albums	
Tracks	
Playlists	
Search	
	22222222222222222222222222222222222222

Once the 640H has found all of the music in these locations, the albums and tracks are immediately available from the same menu system as all the locally held content. When a source of music is added, it is automatically added to the list and enabled. Each source can be disabled or re-enabled later if required.

**Note:** Network connectivity is required for many of these options. Please refer to the 'Networking your 640H' section of this manual for more information.

#### Deleting music on the 640H

Content can be deleted off the 640H in single tracks, whole albums, by artist or genre or in 2000 track blocks of the total content. To delete content off the 640H, follow these steps:

- 1. Select the album, artist or genre that the track you want deleted is in. If you are selecting an artist or a genre, you will then need to press TRACKS.
- 2. All the tracks in the category are then automatically selected. Deselect any tracks that you do not want deleted.
- 3. Go to EDIT DETAILS.
- 4. Select DELETE; the 640H will show the total number of tracks for deletion.
- 5. Select CONFIRM and wait whilst the 640H deletes the tracks.

You can also delete up to 2000 tracks of the total content of the 640H by pressing the Tracks button on the remote from the home menu and following the process above.

# 640H

## Extra features of the 640H

#### Internet Radio menus

**Note:** The 640H is required to be connected to the internet for this feature. Please refer to the 'Networking your 640H' section of this manual for more information.

The INTERNET RADIO screen menu is structured identically to the MUSIC LIBRARY screen.

Back	All genres
Presets	Added recently
Genres	Alternative
Locations	Blues
Languages	Christian
Stations	Classical
	Country
	Dance
	Jazz

From this menu you can select Internet Radio stations, selecting by genre (Fig. 12), geographic location, broadcast language (Fig. 13) or by looking at all available stations.

Back	All languages
Presets	Arabic
Genres	Austrian
Locations	Chinese
Languages	Czech
Stations	Danish
	Dutch
	English
	Estonian

Simply move around the screen using the navigation arrows and the Select button to choose your desired station and it will play within a few seconds. You can also use the *Info* button on the remote to display the currently playing internet radio station.

To save/preset your favourite radio stations, simply select the station then press the *Right Arrow* button. Up to 9 favourite stations can be stored which can then be selected through the PRESETS option on the INTERNET RADIO menu.

**Note:** New internet radio stations cannot be added by the user to the pre-loaded list of stations, as the streaming format may not be compatible. However, the list will be checked and updated automatically when connected to the internet. To update internet radio stations manually, go to SETTINGS/SYSTEM/CONTENT/UPDATE RADIO.

#### **Burning CDs**

To burn music stored on your 640H to CD, insert a blank recordable/rewritable CD into the disc tray. Go to the MUSIC LIBRARY and select the music to be burnt by track, album, artist or a specially created playlist. Choose the CREATE CD option from the menu (Fig. 14), choose the CD format you require (Audio CD format is best if the CD is to be played on separate audio equipment, while Data CD format is only being played on a computer), then select the CREATE CD option to begin burning to disc. If you use a re-writable CD (CDRW), you can also use the 640H to clear the CD disc of any unwanted files before burning.

Back	▶ 1. There's Gotta Be a Change	3:39
Play	2. Honey Hush	4:17
Shuffle: off	3. Master Charge	5:48
Repeat: off	4. If Trouble Was Money	9:21
Clear all	5. Don't Lose Your Cool	3:24
Create CD	🕒 6. If You Love Me Like You Say	4:12
Send to	7. Frosty	3:24
Add to playlist	8. Tired Man	5:01
Edit details	9. The Moon Is Full	4:36

**Note:** The file format of the music to be burnt needs to be chosen and compressed before being burnt to CD.

#### Line in menu

Any device with a phono out socket can be connected to, played through and recorded onto the 640H. Simply connect the device to the Audio In socket of the 640H, got to LINE IN where the connected device will be displayed (Fig. 15). From this menu you can listen to the device through the 640H as well as record from the device onto the hard drive.

Back	Line input 1	
Stop		
Record		
Stop record		

For example, you can connect a DAB/FM tuner and record from radio stations onto the 640H. If a recording is made, the file is then added to the Music Library as an "Unknown album" (and also located in MUSIC LIBRARY/GENRES/RECORDING) which then can be renamed (by selecting EDIT DETAILS) and then added to a playlist.

## Extra features of the 640H continued

#### Connecting an external portable device via USB

The 640H is compatible with USB mass storage devices (e.g. Flash disks or external hard drives). When connected it is scanned and becomes available through the MUSIC LIBRARY to be played on the 640H (there may be a delay of up to 30 seconds whilst the 640H recognises the device, a message saying "Scanning device..." is shown). To copy the contents of the device to the 640H, from the 640H to the device, or to another connected storage device, you need to select the connected device in the LOOK IN... menu where it will appear listed (Fig. 16). Select the tracks you wish to copy from the list, select SEND TO..., choose the hard drive of the 640H and then select SEND (copying will only happen in the same format).

Back	Bedroom
Look in	O Flash card
Genres	Media library
Artists	PC
Albums	
Tracks	
Playlists	
Search	

Note: Devices that include their own memory management (such as MP3 players, iPods<sup>™</sup> etc) are usually not suitable for direct connection to the 640H via USB. Plugging a NAS (Network Attached Storage) drive directly into a 640H via either the USB or Ethernet socket will not work. Connections to such devices must be done via a network with a PC/Mac.

#### Send to ... Menu

As well as copying music from connected devices to the 640H, it is also possible to send from the 640H back to the connected devices. As explained previously, simply select the tracks from the Music Library you wish to copy, select the SEND TO... option (Fig. 17), choose the destination where you want to send the music, choose the file format and then select START to send. If the content on the 640H is not in a suitable format for sending to the device, a file conversion can be done before sending, without affecting the original file format on the 640H.

Back	● 1. Don't Panic	2:17
Play	🔵 2. Shiver	4:59
Shuffle: off	3. Spies	5:18
Repeat: off	4. Sparks	3:47
Select all	5. Yellow	4:29
Create CD	🔵 6. Trouble	4:30
Send to	7. Parachutes	0:46
Add to playlist	8. High Speed	4:14
Edit details	9. We Never Change	4:09

Please refer to the 'Networking your 640H' section of this manual for more information on how to connect your 640H to a network/PC/Mac.

#### **Settings Menus**

Within the SETTINGS menus (Fig. 18) you can tailor your 640H to how you want the unit to operate. A large number of settings can be altered from here, all of which are essentially self explanatory, but a few of the key areas are outlined here.

Music	Information
Settings	User

#### Information settings

View the current software version, how much space you have used and is available on the hard drive of your 640H.

#### User settings

This menu allows you to change the default settings of the 640H:

- Choose a different language for your 640H menus (Fig. 19).

Баск	Deutsch
Language	English
Keyboard	Español
Audio	Français
Options	Italiano

- Choose the keyboard language format.
- Choose the default actions for when a CD is put into the 640H. Select from the options of automatic playing, showing of tracks, storing the CD onto the hard drive, or no action.
- Choose the CD burn format and file storage compression rates.
- Within OPTIONS, Select FEEDBACK SOUNDS for a small "click" noise each time a button is selected.

#### System settings

The system settings are important if you wish to use the 640H with a wireless or wired network to communicate with other 640H units or a PC (see the 'Networking your 640H' section of this manual for more information). Features include:

- Select the monitor/video display format PAL (UK/Europe/Australia) or NTSC (Canada/USA) depending on your TV type.
- Set the "screen blank" time to turn off a connected TV/Monitor.
- Time and date can be set, as well as the Standby timeout. We advise the time be set so that the unit can perform important housekeeping duties from time to time.
- Update the operating system of the 640H from CD (see the 'Product Upgrades' section of this manual for more information).
- Choose from automatic IP settings (DHCP) or enter in the Ethernet IP settings manually. Select APPLY to update the network settings you have entered.

# 640H

#### Data management on the 640H

The 640H allows you to rescan, reset, backup and restore the database on the hard drive of the 640H (Fig. 20).

Back	Hard disk drive
Rescan	
Add location	
Remove location	
Backup database	
Restore database	
Reset database	
Update radio	

#### Reset

Used to reset the entire database to a blank state, **but does not affect the audio content**. You may be prompted to perform this from an OPTIMISE DATABASE screen which may appear after switching the unit back on.

#### Rescan

'Rescan' completely updates the unit's music library with all content visible in the location chosen to be rescanned. This may be an added location via a networked PC/Mac or another 640H, or the 640H's own Hard Drive.

#### Backup database

This is a function to store and preserve the current music library data base and Playlist details. This library information is not deleted when you "reset" the database.

#### Restore database

'Restore database' recovers the backed up music library and playlists without having to perform a 'Rescan'.

#### Archive your music

To archive (and restore) music to an external hard drive or storage device, select ARCHIVE MUSIC (located in the System Settings).

The 'Archive Music' option is used to backup hard disc audio content, but is not the same as a 'Backup database' as described in the previous section. This can only be performed to an external portable USB mass storage device. The device can then only be seen as an archive disk. Multiple backups can be performed to the device.

Select the connected external disk to archive your music onto (Fig. 21) and then select BACKUP. A CONFIRM screen will appear before backup, which will display the date of the last backup and the amount of memory used. To restore your backed-up data, select RESTORE.

Back	O External disk 2
Archive disk	
Backup	
Restore	

**Note:** This will restore missing files but will not delete files added to your Music Library.

## **Custom Installation (C.I.) use**

The 640H features a Control Bus input/output (the Control Bus sockets are colour-coded orange) that allow un-modulated remote control commands (positive logic, TTL level) to be received electrically by the unit and looped to another unit if desired. These control commands are typically generated by custom installation (multi-room) systems or remote IR receiver systems.

An IR Emitter Input is also provided that allows modulated IR remote control commands to be received electrically by the unit. Commands on this input operate the unit only and are not looped out demodulated on the Control Bus Output.

This feature is useful for multi-room systems which feature routed I.R. emitter outputs. Instead of using window emitters stuck over the CD players front panel IR receiver, a mono 3.5mm mini-jack to 3.5mm mini-jack lead can be used for a more reliable electrical connection.

In addition the units feature 'direct' IR/Control codes as well as toggle codes for many of their features to simplify programming custom installation systems. Special direct On/Off commands can be accessed on the supplied remote control for teaching into C.I. systems as follows:

1. Press and hold the Standby/On button. The remote first generates its standby (toggle) command. Keep the button held down, after 12 seconds a 640H "On" command will be generated. If the button is kept held down for a further 12 seconds, a 640H "Off" command is generated.

A full code table for this product is available on the Cambridge Audio website: www.cambridgeaudio.com/support.php

### **Product upgrades**

Upgrades may be provided for this product from time to time, available as a downloadable ".iso" image file from the Cambridge Audio website (**www.cambridgeaudio.com/support.php**). Simply download the image (the ".iso" format requires specific software to be handled), burn the file to a CD-R/CD-RW disc (or alternatively, contact your dealer where you purchased your 640H to order an upgrade disc). Once you have burnt the disc, load it into the 640H and follow the upgrade process (Fig. 22).

Start	Upgrade progress:
Cancel	
	Upprade item progress:
	000000000000000000000000000000000000000

Visit **www.cambridge-audio.com** and register to receive notification of future software updates.

## **Networking your 640H**

This section gives an overview on how to connect your 640H to a network. Networking (i.e. connecting devices together) can allow you to expand the overall capabilities of your 640H. By networking your 640H to a PC, Mac or other device, you will be able to have access to (and play) music files stored on other devices. You can also access the internet for CD database lookup and internet radio.

Before setting up your network, we encourage you to read through the entire section and then decide on the network layout that you wish to implement. We advise this because different network layouts require different setups of your 640H and your computer.

The information in this manual is brief and for more detailed and specific network setup instructions and file sharing information for either Windows XP, Windows 2000 or Mac OS 10.3 or higher, please visit our support website to download a detailed network guide:

www.cambridgeaudio.com/support.php

#### Network connection selection

There are many network variations you can make with your 640H, but to keep things simple we will be explaining some basic network types:

#### Network Type A: "Basic" Wired Network via Cable set-top box modem

04011	Set-top box/modem	@
640H		-www

If you have a broadband (internet connection) service supplied by your telecom provider but you do not have a PC/Mac, you can connect directly to the built in modem in your Cable set-top box to access the CD recognition and internet radio (iRadio) features on the 640H.

Your modem plugs into the telephone or cable TV sockets (for DSL and cable broadband modems respectively), and converts the incoming signals into Ethernet format.

While your set-top box and 640H are switched off, make a wired connection between the two units via an Ethernet cat5e lead (see the 'Computer network advice' section for more information). Switch on the modem and follow your broadband connection set up and set-top box instruction manual to check it has a connection to the internet. Once you have confirmed this, switch on the 640H. When the 640H has finished its start up checks and has the UI (User Interface) displayed, check the Ethernet connection on the rear panel of the 640H. If the green LED above it is lit, there is a good physical connection to the modem.

**Note:** It is also possible to add a cable broadband router to the set top box, and plug the 640H into the router (see Network Type C).

## Network Type B: "Peer to Peer" Wired Network with no Router, Hub or Switch



This involves connecting one 640H to another 640H or network compatible device (i.e. a PC/Mac). This is a network where only two units are connected directly to each other with no router, hub or switch. When networked, the 640H can play, burn a copy or transfer music from the other device.

To connect the two devices together, you must use an Ethernet crossover lead. Plug one end of the lead into the 640H Ethernet port and the other end into the other devices' Ethernet port. If the green LED above the 640H Ethernet port is lit, there is a good physical connection to the other device.

#### Network Type C: "Home" Wired network via a Router, Hub or Switch



This is the most common network where a router (a device that routes signals from the phone line to multiple network devices on a network), hub or switch (devices that allow data to be shared between many network devices) is used to connect multiple devices together. These could be one or more 640H's, PC's, Macs and network devices. Each 640H can then play back or move content from/to other devices. If connected to the internet (via a router or PC/Mac), the 640H can also access the CD recognition and internet radio (iRadio) features. Using a router is the recommended way to connect 640H's to other 640H's and network devices.

If you already have an existing home network, then adding the 640H to it is simple via an Ethernet cat5e lead from the 640H to the router, hub or switch. If you do not currently have a network, then we recommend you seek expert help on computer networking configuration.

#### Network Type D: "Wireless" Network



The 640H supports wireless networking via its Ethernet port. To make the 640H wireless, you need to purchase a "Wireless Ethernet Bridge" (a device that converts an Ethernet wired connection to a wireless connection) from any good IT retailer. The 640H is connected to the bridge via an Ethernet Cat5e lead.

Although these devices operate wirelessly, they appear to the 640H as a normal Ethernet connection, and therefore the 640H is setup in the same way as the wired networks described above. The 640H is compatible with the wireless 802.11b and 802.11g standards.

**Note:** The Wireless Ethernet Bridge that you purchase will need setting up according to your network setup and the instructions that come with the bridge. Before connecting the bridge to the 640H, it is always best to test that the bridge is fully set up to your network according to the bridges' user instructions.

## Setting up IP addresses for networks

Before setting up a network it is necessary to know a little about IP (Internet Protocol) addressing. For any device on a network to communicate with another it must have a unique IP address (a bit like a house number and street name so that each house can be identified for mail). Each device then uses these to identify which device they wish to communicate with.

Two types of IP addressing are used in networks called respectively Static IP and Dynamic IP:

#### **Dynamic IP**

Dynamic IP is achieved by a process known as DHCP (Dynamic Host Configuration Protocol). This is a protocol for assigning dynamic (i.e. changeable) IP addresses to all the devices on a network without user intervention. With dynamic addressing, each device is given a new IP address automatically each time it connects to the network. This kind of network will require a PC with DHCP server enabled or a router. The router is able to connect together multiple devices and usually contains the DHCP 'server' that does the job of assigning IP addresses.

Dynamic addressing simplifies network administration as it is largely automatic and transparent to the user, and is the preferred (and default) method for the 640H to connect to a network.

#### Static IP

Static IP just means that each unit it manually assigned a unique unchanging IP address by the user/network administrator. This requires more setup and is not recommended. This system is typically used in very large networks where the administrator may find it useful to always know the exact IP address of each network device (since they cannot change) or conversely very small networks of only two devices where as no hub is used there is no DHCP server present and Dynamic IP cannot be used.

Network Type A might be able to be configured as either Static IP or Dynamic IP depending on the set-top box/modem (consult the manual for your equipment).

Network Type B must be configured as Static IP as no hub is involved and for this reason is not the recommended configuration.

Network Type C and D can be configured as either Static IP or Dynamic IP. Dynamic IP is strongly recommended as the process is largely automatic.

Once you have decided on the basic layout of your network, then you can decide whether it will be a wired network (connected via cables) or a wireless network (connected via wireless devices).

The 640H is by default set to Dynamic IP addressing, so if you wish to use this type you do not need to make any changes to the 640H setup. If you wish to use Static IP addressing, follow the steps below.

1. In the main menu, select SETTINGS in the left hand menu:

Music	Music library
Settings	CD
	iRadio
	Line in
	Info/now playing

2. In the right hand menu that appears, select SYSTEM:



3. Now select PRODUCT:



4. Select NETWORK:



5. In the "Network Options" page that now appears, there is a menu item called AUTOMATIC IP SETTINGS (DHCP). Deselect this and click apply. This now turns off Dynamic DHCP addressing. The request could take a few seconds to take effect:

Back	Automatic IP settings (DHCP)
Options	
Ethernet	
Apply	

6. When Dynamic DHCP addressing has been turned off, select the ETHERNET menu item:

Back	Automatic IP settings (DHCP)
Options	
Ethernet	
Apply	

7. This brings up four text input boxes that you can change: IP address, Subnet mask, Gateway and Name server. As with your computer setup, the IP address should be 192.168.0.X where X is a number between 1 and 254 that is unique to the 640H. The Subnet mask should be set to 255.255.255.0. The Gateway and Name server should be set to the IP address of the device controlling your internet connection (i.e. router). If you are using a network with no internet connection, the Gateway and Name server should be set to the IP address of the network device you are connecting to (i.e. PC/Mac or another 640H etc):

Back	IP address	192.168.0.25
Ethernet	Gateway	255.255.255.0
Apply	Name server	192.168.0.1

8. After you have entered the correct information, click APPLY to store the settings. This may take a few seconds to take effect:

Back	IP address	192.168.0.25
Options	Subnet mask	255.255.255.0
Ethernet	Gateway	192.168.0.1
Apply	Name server	192.168.0.1
		200000000000

The process is now complete.

## **PC/PDA control**

The 640H can now be controlled by a PC running Windows XP or a PDA (Pocket PC) running Windows Mobile 2003 or Windows Mobile 5.0. This software is designed so you can control your 640H from the comfort of your living room chair, bed etc without the need for a remote control or keyboard.

The control software not only allows you to perform the navigation functions as found on your remote control, but it can also browse the contents of the 640H music database and allow you to play a track, album, or even a whole catalogue of music by an artist. This can also be filtered by alphabet as you would using the remote control.

The control software essentially has two different modes:

#### 1. Remote Control Mode

#### 2. Browse Mode

1			_ 🗆 🗵
Actions	Mode		
Connected	to ref4		
Status: Pla	aying		
Track: Te	est Track One		
Album: Te	est Tracks		
Artist: Ca	mbridge Audi	D	
Home	Back	Info	Refresh
Genres	CD Tray	^	Page Up
Artists	<	OK	>
Albums	OSD	v	Page Dn
Tracks	Play	Pause	Stop
Playlists	k<	>>	Mute
Radio	<<	>>	Standby

-0			
Action	s Mode		
Connec	ted to ref4	Show:	All 💌
Status:	Playing		
Frack:	A Thousand T	rees	
Album:	Word Gets An	ound	
urtist:	Stereophonic	s	
Stereo Robbie U2	phonics Williams		
Stereo Robbie U2	phonics Williams		
Stereo Robbie U2 Genre	phonics e Williams	Info	Refresh
Stereo Robbie U2 Genre	phonics a Williams s Clear s Play	Info	Refresh
Stereo Robbie U2 Genre Artist	phonics e Williams s Clear s Play 16 K<	Info Pause >>I	Refresh Stop Mute

PC minimum requirements are Windows XP with service Pack 2 and .net 2.0 installed. PDA minimum requirements are Windows Mobile 2003 or Windows Mobile 5.0 both with .net 2.0 installed. Your 640H should be running software version 02.01.77 or higher.

For installation instructions and software download links, click on the Azur 640H link at:

www.cambridgeaudio.com/support.php

### Album art management

Album art can be transferred to your 640H from compatible networked sources (e.g PC or Mac). Album art can be found on various websites and copied into your personal computer files as a JPEG/JPG/GIF/BMP file.

To do this, simply drag and drop the album art into the appropriate albums directory on the 640H from your PC/Mac. You can even use your own images in place of downloaded ones, but name any you create as "user.jpg" and put it in the directory as above.

When using iTunes, your album art must be stored in the individual album's track listing folder as a JPEG for successful transfer and relationship with the music content. Simply cutting and pasting the album art into the 'Album Art' location on the iTunes screen is not sufficient for the AudioFile software to recognise this as album art.

For detailed instructions click on the Azur 640H link at:

#### www.cambridgeaudio.com/support.php

Note: After adding album art to the 640H, a rescan by the 640H is necessary to update its database.

# 640H

ENGLISH

## Troubleshooting

Despite our selection of the very highest quality components and extensive testing regime the 640H, like all units using a hard disk drive, is subject to occasional random failure. In the unlikely event of a harddrive failure, some or all of the music content stored on the 640H's hard-drive may be lost. It is therefore strongly recommended that all music content is regularly backed up to another storage medium to prevent lengthy re-ripping or transferring of content in this event. Cambridge Audio cannot be held responsible for any consequential damage caused by hard-drive failures.

#### There is no power

Ensure the AC power cord is connected securely.

Ensure the plug is fully inserted into the wall socket and is switched on.

Check fuse in the mains plug or adaptor.

#### The player will not read the disc

Check the disc is not loaded upside down.

Check that the disc is not too scratched or dirty.

#### There is no sound

Ensure that the amplifier is set correctly.

Check that the interconnects are inserted correctly.

#### The disc is skipping

Check that the disc is not too scratched or dirty.

Ensure the player is on a firm surface and not subject to vibrations.

#### There is a hum coming from the speaker

Ensure that all cable connections are secure.

#### The remote handset will not function

Check that the batteries have not expired.

Ensure that nothing is blocking the remote sensor.

Check the remote is in the correct mode - 640H, Amp or AV mode (see the 'Remote control' section of this manual for more information).

#### There are no menus displayed on a connected monitor

The monitor/TV must be connected to the 640H before you turn on power via the On/Off switch on the rear panel of the 640H.

#### The player will not burn tracks to disc

Ensure the CD is not scratched or dirty. The CD must also be blank and the correct format for burning (CD-R and CD-RW).

#### The connected device is not accessible

Ensure the USB cable is connected securely to the portable device and the 640H, and the USB has power.

#### The unit freezes

Allow a reasonable amount of time before switching the 640H Off on the rear panel of the unit, as the 640H may still be processing a function.

#### The 640H is not connecting to a network

Double-check all the settings, restart the computers and the 640H in your network and try again.

## After installing a software upgrade the unit no longer recognises all of the information on the database

In order to synchronise the software upgrade with the hard drive content, it may be necessary to rescan the database. If this does not rectify the issue, reset the database, then rescan (refer to the information on Data management in the 'Settings Menus' section of this manual). This procedure will not remove or alter content on the hard drive.

## I have a large quantity of music on my PC, which the 640H is unable to recognise or scan

For larger music collections, please refer to the 'Content Management' section in the 640H Networking Guides available for download on the Cambridge Audio website.

## My 640H is still making noises after I have put it into standby

The unit is performing tasks such as background compression, file and database management, and self checks. This is part of normal operation, and will often occur for a few minutes after the unit is placed in standby. If there is a large amount of music on the hard drive awaiting compression, this procedure will take longer than usual.

For more frequently asked questions (FAQ's), technical advice and information on getting the most out of your 640H, please visit the Cambridge Audio website:

#### www.cambridgeaudio.com/support.php

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