



XP Iris 2

User Manual







Copyright © 2014 Antenna International Ltd. All rights reserved

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Antenna International Ltd.

Antenna International Ltd. endeavors to ensure that the information in this document is correct and does not accept any liability for error or omission.

XP Iris 2 is a registered trade mark of Antenna International Ltd.

Antenna International Ltd.

85 Great Eastern Street London EC2A 3HY United Kingdom T: +44 (0)20 3365 8600

F: +44 (0)20 3365 8601

Email: uk@antennainternational.com





Contents

XP Iris 2 Overview	5
Features	6
XP Iris 2 Controls:	8
Chargers	10
Connecting and Testing the Charging Unit	10
Charging the XP Iris 2:	10
Preparation for Use	11
Using the Player	11
Iris Connect 2 [™] :	12
Setting up Iris Connect 2 TM :	12
Installing New Applications:	14
Removing Content from Devices:	15
Locking XP Ir is 2 [™] Device:	16
Unlocking XP Iris 2 Device:	16
Battery Operation Optimization	17
Lithium-Polymer Battery Caution	17
Cleaning and Hygiene	18
Precaution	19
Troubleshooting	20
Service and Repair Procedure	21
Warranty	22
Certification	23
FCC COMPLIANCE STATEMENT	23
IC STATEMENT	24
Environmental Considerations	25
Worldwide Contacts	26
Specifications	27
XP Iris 2 Player	27
CH150-2 [™] Charging Rack XP Iris 2 – User Manual	28 Page 3 of 29



	CONNECTING
RNATIONAL	THEWORLDTOCULTURE
Headphones	29





XP Iris 2 Overview

The XP Iris 2 is a portable, handheld, multimedia player which provides rich audio and video content, enhancing visitor experiences at cultural sites around the world. Its touchscreen enables visitors to easily make selections and interact with the player and its physical keypad allows the user to provide numeric selections where prompted.

The XP Iris 2 has the capacity to store multiple different tour commentaries, in a number of different languages. The XP Iris 2 can store and display varied types of information including slide-shows, videos, images, audio commentary, on-screen text, interactive games and more.



Visitors control their tour experience by interacting with the player through the touchscreen and physical keys.

Physical controls provide the means to enter commentary numbers, adjust the volume and pause, play, fast forward and rewind tour content.

On-screen controls provide the means to navigate through the content and select different options of the application.





Features

- ✓ Dedicated handheld device incorporating both a fully operational touch screen and an award-winning keypad;
- ✓ Robust, durable design, based on over 30 years' experience in mass distribution at some of the world's most iconic cultural sites;
- ✓ High quality digital sound supported both through headphones and a dedicated built-in speaker;
- ✓ Designed to support on site or remote management uploads;
- ✓ Maximum flexibility to meet the needs of changing platforms;
- ✓ Wi-Fi enabled to support online applications, including social media and ecommerce activity;
- ✓ Compatible with Antenna Publisher, our new content creation, management and multi-platform distribution software.



Memory Capacity 1GB DDR, 8GB chip on board flash with additional micro SD

slot for up to 64GB. Supports over hours of video, hours of

audio and digital images.

Audio Built-in speaker and universal stereo headset jack.

Screen High resolution 3.5 inch touch screen, supporting subtitles.

Video Full video playback.

Keypad Intuitive, ergonomic keypad with accessibility support.

Network Connectivity Wi-Fi & Bluetooth.

Battery
Lithium Polymer. Over hours, to support all day use on site.

Updates
Content and firmware updates via charging rack, USB and

·

Wi-Fi.





Alarm System

Bluetooth Low Energy security system

Certifications

CE, RoHS / WEEE, Wi-Fi, Bluetooth, FCC





XP Iris 2 Controls:

The XP Iris 2 is comprised of the XP Iris 2 player, headphones and lanyard.



- 1. Volume Control button: Decreases the volume.
- 2. Volume Control button: Increases the volume.
- 3. **Numerical key pad**: Each commentary stored in the XP Iris 2 can be coded with a number, which can correspond to a number displayed for each exhibit. The numerical key pad enables the user to key in the appropriate exhibit number.
- 4. Rewind button: Moves currently playing content back by three (3) seconds.
- 5. **Stop button**: Pauses / Stops the selected content.
- 6. Play / Resume Play button: Plays / Resumes selected content.
- 7. **Fast Forward button**: Moves currently playing content forward by three (3) seconds.
- 8. **LCD display with resistive touchscreen**: While XP Iris 2 is in use, the screen displays applications and content. Navigation within applications is performed via the touchscreen.
- 9. Headphones socket: Enables use of stereo headphones with the XP Iris 2.
- 10. Lanyard clip: The Lanyard is provided with the XP Iris 2.







11.XP Iris 2 label.



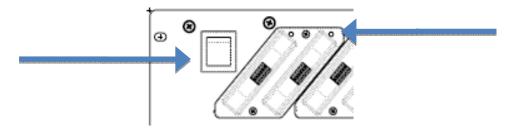


Chargers

The CH150-2™ Charging Unit is designed to work with the XP Iris 2 multimedia players. The CH150-2™ provides 50 slots for player charging and a USB host port for programming and diagnostics. The CH150-2™ is designed to be mounted into a standard 19-inch EIA-310/CEA-310 equipment rack with a minimum 10U height. See the CH150-2™ User Manual for detailed charger information.

Connecting and Testing the Charging Unit

Plug the CH150-2[™] into AC power, then flip the front panel power switch to the ON position.



The green status light should be lit on each slot. The unit is now ready for use.

Charging the XP Iris 2:

Each XP Iris 2 is supplied with re-chargeable batteries, which can last on average 6 to 10 hours of use from a full charge. It is recommended that all players are charged overnight to ensure a full charge for the following day's use.

- 1. If headphones have been used, unplug them from the player.
- 2. Place each of the XP Iris 2 players into a vacant charging slot and apply light pressure to ensure a tight connection.





Preparation for Use

The XP Iris 2 requires very little preparation to ensure its readiness for your visitors.

- 1. Remove the player from charging station.
- 2. Attach a lanyard to the clip on the bottom of the player.
- 3. Press any key on the physical key pad.
- 4. You should now be on a language screen.
- 5. Player is now ready.



Using the Player

- 1. Select an XP Iris 2 player from those that are available.
- 2. Once on the landing page screen, press any key on the key pad (for example number 5 or any other physical key).





Iris Connect 2[™]:

The **Iris Connect** 2[™] is a multiple platform, java application that automates installation of Android applications (.apk files) directly onto **XP Iris 2** devices. **Iris Connect 2** is add-on software to existing uploading stations that have USB hubs installed.

NOTE: This device may not be connected to a PC for any content downloads or firmware updates without the operation of professional staff.

Setting up Iris Connect 2[™]:

Requirements

- 1. Laptop running Mac OS 10.5+, Windows XP, Vista or 7, Linux.
- 2. Java
- 3. Android SDK
- 4. Android SDK Tools
- 5. Google USB Driver package
- 6. Android Composite ADB interface (ftp://support.archos.com/ARCHOS%20it/ADB/adb_winusb_driver.zip)
- 7. Iris Connect 2[™] application

Setup

- 1. Install Android SDK http://developer.android.com/sdk/index.html;
- 2. Run Android SDK Manager;
- 3. Check off SDK Tools, Google USB Driver package;
- 4. Install and accept all agreements;
- 5. Exit **SDK Manager**;
- 6. Add android-sdk PATH (on windows 7):
 - a. Start the **System Control Panel applet** (Start Settings Control Panel System);
 - b. Select the **Advanced System Settings** link;
 - c. Click the Environment Variables button.





- d. Under System Variables, select Path, and then click Edit:
 - 1. To find the path open windows explorer and go to the directory where android tools are installed. Example on my system:
 - C:\Program Files (x86)\Android\android-sdk\platform-tools;
- e. You'll see a list of folders, as this example for my system shows (folders listed separately for clarity) :
 - %CommonProgramFiles%\Microsoft Shared\Windows Live;
 - %SystemRoot%\system32;
 - %SystemRoot%;
 - %SystemRoot%\System32\Wbem;
 - %SYSTEMROOT%\System32\WindowsPowerShell\v1.0\;
 - c:\Program Files\Hewlett-Packard\Drive Encryption\;
 - C:\Program Files\WIDCOMM\Bluetooth Software\;
 - C:\Program Files\WIDCOMM\Bluetooth Software\syswow64;
 - C:\Program Files (x86)\Panda Security\WaAgent\Common;
 - C:\Program Files (x86)\QuickTime\QTSystem\;
- f. You can add additional folders that you want to include in searches. I add a
- "C:\Program Files (x86)\Android\android-sdk\platform-tools" entry for Android SDK Platform-Tools. Click **OK**:
- g. Restart computer to ensure all changes take effect;
- 7. Check if java is installed on the computer
 - a. Go to Start -> Search -> java.exe;
 - b. If the java.exe is not found, download it and install it http://www.java.com/en/
- 8. Create a new folder in C:\Program Files\ directory called "Iris Connect 2";
- 9. Copy Iris Connect 2 app archive to directory created in step #8;
- 10. Extract all the files:
- 11. Go to C:\Program Files\Iris Connect 2\IrisConnect.app\Contents\Resources\Java\;
- 12. Double click on IrisConnect.jar.



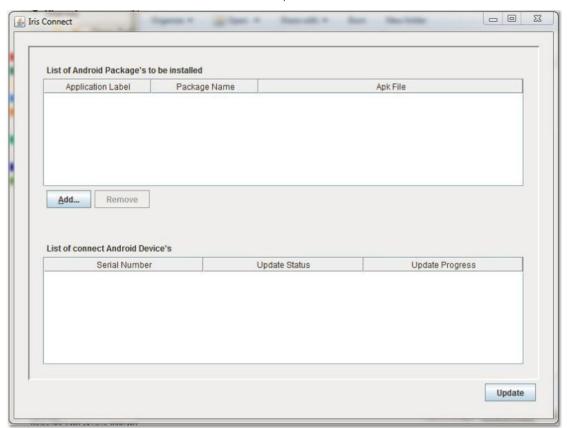


Installing New Applications:

Installing app(s) on one or more XP Iris 2 devices is very straight forward.

Please Note: you must plug the devices one by one when using more than one device.

- 1. Connect the computer with **Iris Connect 2[™]** software pre-installed to the uploading rack. If you require installation instructions for **Iris Connect 2[™]** please refer to **Iris Connect 2[™]** installation instructions (see "**Setting up Iris Connect 2**[™]" on page 12);
- 2. Launch the **Iris Connect 2**[™] software;



- 3. Connect the device(s) to uploading rack;
- 4. Within Iris Connect 2^{TM} you will see devices show up as you connect them to USB in the bottom section of the software;
- 5. Once all desired devices are connected within **Iris Connect 2**™ select all devices that you are trying to update;





- 6. Press "Add" button to add .APK application you need to install to the list within Iris Connect 2TM. Navigate to the folder where application is stored and double click on the .APK file:
- 7. At the top part of the screen you will see the name of the application you are about to install;
- 8. Turn the uploading rack **ON**;
- 9. Insert device into charging slot on the uploading rack (every time you insert the device it will show up in the device list section of **Iris Connect 2** TM .
- 10. Repeat Step 9 for every device you need to update;
- 11. Select all the devices in **Iris Connect 2**[™] in section where devices are listed (Note: software will only update the devices you have selected)
- 12. Press **"Update"** button located at the bottom right corner of the **Iris Connect 2**™ software;
- 13. All the devices will be updated automatically. Once done, you would only see **Iris** Connect 2[™] and no other pop-up windows.
- 14. Remove device(s) and make sure the application has been installed.
- 15. Lock the device (see "Locking XP Iris 2™ Device" procedure on page 16)
- 16. Device is now ready for CS use.

NOTE: You can install multiple apps at the same time. Keep in mind that all aftermarket apps on XP Iris 2^{TM} devices are going to be deleted from the device first.

Removing Content from Devices:

Deleting content from XP Iris 2 device(s) using Iris Connect 2 is very simple.

- 1. Launch Iris Connect 2
- 2. Select device(s):
- 3. Without adding any applications, press update button and confirm that you want to delete all the apps on XP Iris 2;
- 4. All applications on selected devices are going to be uninstalled.





Locking XP Iris 2[™] Device:

- 1. Make sure the application is installed;
- 2. Open application;
- 3. Press Android home key on the screen. A pop up dialogue window will appear with two options: one for "Launcher" and the second for your application. Below you will notice a check mark box;
- 4. Select the check box (check mark will highlight green once selected);
- 5. Select your application. This step will set a default application that launches on startup. You need to be careful which application you select;
- 6. XP Iris 2 is now locked. Even if the device is fully powered off your app will always launch first.

Unlocking XP Iris 2 Device:

XP Iris 2[™] device can be unlocked from the Customer Services landing page screen (Battery Screen)

- 1. To get back to the battery screen:
 - a. Press search key;
 - b. Enter "999" followed by play button.
- 2. Press the **Battery** icon on the screen;
- 3. Press **Continue** in pop up window this will bring you out to settings screen;
- 4. Go to Applications>Manage Applications>Select your app;
- 5. Press "Clear Defaults" button;
- 6. Device is now unlocked and you may get back to Android home screen where you can manage your applications and settings.





Battery Operation Optimization

- Excessive charging runs the risk of overcharging the battery and decreasing its total life expectancy.
- ✓ If the device is not used for an extended period of time, device will discharge and become unusable. To maximize battery performance, power off the device using power button (refer to technical support manual for instructions)
- ✓ Use only Antenna International specified peripherals in the device. Using other peripherals may cause battery to discharge faster.
- ✓ Use sleep mode button located on the side of the device whenever the device is not being used.
- When the battery is indicating ¾ discharge, plug the device into the charger. Leave the device plugged in to charger for few hours for effective battery charge.

Lithium-Polymer Battery Caution

This product is equipped with a Lithium-Ion battery.

- ✓ Do not pierce, open or disassemble it, or use it in a humid and/or corrosive environment. Do not store or leave device in or near sources of heat such as direct sunlight, high temperature location, a pressurized location or container, microwave oven.
- ✓ Do not expose it to temperatures over 60 C (140 F).
- ✓ If the battery leaks and you come into contact with the leaked fluids, rinse thoroughly with water and seek medical attention immediately.

Failure to follow above mentioned instructions could cause the battery to leak acid, become hot, explode or ignite and cause injury and/or damage. Never throw battery or the device with battery in it into a fire.

Note: Always dispose of old batteries in an environmentally-safe way, in accordance with local regulations. Where possible re-cycle them. Contact your local authority for details of battery re-cycling schemes in your area.





Cleaning and Hygiene

All parts of the XP Iris 2 units and charging equipment should be cleaned on a regular basis with disinfectant wipes

Earpad Hygiene

- ✓ Headphone ear pads should be replaced, cleaned or washed regularly.
- ✓ Wash ear pads in cold water and detergent.
- ✓ Discard if torn or remain dirty even after washing.

Charger Units

When cleaning the charging unit:

- ✓ Ensure the power supply is switched off;
- ✓ Remove the power cord from AC outlet;
- ✓ Remove Players;
- ✓ Only use dry cloth for cleaning of internal parts. Never use liquids or moistened equipment for cleaning of internal parts;
- ✓ Avoid touching the metal contacts inside each cradle.





PrecautionConsideration

Equipment protection

Noise level

Service, repairs and modifications

Precaution(s)

o Always protect the XP Iris 2 equipment from moisture, heat, excessive dust or sand and mechanical shocks.

o Avoid wrapping headset/headphone cables tightly around the items when not in use as this can cause damage.

o Avoid continuous periods of high volume listening. If you experience a ringing in your ears, reduce the volume or discontinue use.

o Keep the volume at a moderate level.

This will allow you to hear outside sounds and to be considerate to the people around you.

o Service and repairs should be carried out by Antenna International Ltd. only. Do not attempt to make repairs, or modifications to your XP Iris 2 equipment. This will be in breach of the terms of your contract and will invalidate your warranty.





Troubleshooting

The following table details the procedures that should be followed in the event of a problem. If the problem you have is not listed, or the suggested action does not cure the problem, the faulty item should be returned to Antenna International Ltd., according to the terms and conditions of the limited warranty provided under your contract. Please refer to your contract for full details.

Symptom

Touchscreen isn't working properly

No sound from XP-Iris 2[™]

XP-Iris 2[™] is not charging

Action(s)

If the touch-screen is not responding properly, try to go to the **Touch screen** calibration settings screen (Menu icon > Settings > Repair and Formatting). Then use the **Touch screen calibration** button, and follow the instructions on the screen. If this does not work or if you cannot access the touch-screen settings, you can force the touch-screen calibration with the System Recovery.

- o Check and/or replace the headphones.
- o Turn up the receiver volume.
- o Check the XP Iris 2 is properly inserted in the charging slot.
- o Use a different charging slot.
- o Clean and/or check the battery contacts.
- o Return it to Antenna International Ltd. to replace the battery.





Service and Repair Procedure

Antenna International Ltd. will provide service to all XP Iris 2 system equipment, according to the terms and conditions of the warranty provided under your contract.

When an element of the XP Iris 2 system equipment appears not to be working, check through the troubleshooting list (see "Troubleshooting" on page 20) and see if the problem can be rectified on site.

If you need to send anything for repair, please use the following procedure:

- 1. Complete a service maintenance form with the serial number of the faulty unit, and a full description of the problem. Provide as much detail as you can.
- 2. Maintenance forms can be obtained from your local Antenna International Ltd. contact (see "Worldwide Contacts" on page 26).
- 3. Inform your local Antenna International Ltd. contact that you are returning a faulty item and email or fax the completed maintenance form to them.
- 4. Ensure that the faulty item is off, then package it up securely and send by courier to the repair center. Enclose a copy of the maintenance form; keep a further copy for your own records.
- 5. Clients outside the UK and US should contact their local Antenna International Ltd. office for details on how to return an item.

Maintenance Contracts

Maintenance contracts are available for all Antenna International Ltd. equipment. To discuss your requirements, please contact your local Antenna International Ltd. office (see "Worldwide Contacts" on page 26).





Warranty

Antenna International Ltd. provides a limited time warranty against faulty XP-Iris 2 equipment:

- Headphones and lanyards have a 3-month warranty
- All other equipment has a 12-month warranty

This warranty covers:

- Faulty internal components;
- Faulty charger units;
- Return transportation costs.

This warranty does not cover:

- Damage caused by accident, abuse, misuse, misapplication;
- Damage caused by service performed by anyone other than an Antenna International Ltd. technician:
- Equipment that has been modified;
- · Replacement batteries;
- Transportation costs to an Antenna International Ltd. service center (see "Worldwide Contact" on page 26).

Antenna International Ltd. reserves the right to change the terms and conditions of this warranty.





Certification

The XP Iris 2 is compliant with:





Copies of the EC Declaration of Conformity and test reports are provided upon request. Please contact your local Antenna International office (see "Worldwide Contacts" on page 26).

FCC COMPLIANCE STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.





IC STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) L'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout uillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.





Environmental Considerations

Protection of the environment is an important concern to Antenna International. In order to put this concern into action, Antenna International has consciously included a set of methods that favor a respect for the environment into entire cycle of its products; from fabrication to consumer usage, to final disposal.

Batteries

The Product

If your product contains a detachable battery pack, you should only dispose of it in a designated collection point for used batteries.

The crossed out garbage can symbol on our product signifies that it falls into category of electric/electronic equipment. Products of this type contain substances that are potentially dangerous to the environment and to human health. Therefore, you should not dispose of the Antenna International device in a regular trash.

As such, the current European directives ask that this device be collected:

- At places of distribution in the case of a purchase of a similar electronic product.
- At locally created disposal areas (waste disposal centers, sorted trash systems etc.).

Please contact your local Antenna International office (see "Worldwide Contacts" on page 26) for disposal through regulated and authorized treatment partners. Generally we strive to minimize waste and recycle as much as possible and separate and dispose of materials at the end of their life through authorized treatment facilities in accordance with local regulations at minimum and often beyond.





Worldwide Contacts

Antenna International has a network of offices throughout the world with dedicated staff to support their clients.

Head Office

85 Great Eastern Street London EC2A 3HY United Kingdom

T: +44 (0)20 3365 8600 F: +44 (0)20 3365 8601

Email: <u>uk@antennainternational.com</u>

Please refer to our website http://www.antennainternational.com to find your local office, and all others worldwide.





Specifications XP-Iris 2 Player

Interfaces	USB 2.0 Device
Communications protocols	• Wi-Fi (802.11 b/g/n)
•	Bluetooth 4.0
Audio interface	Built-in Speaker
	3.5mm stereo headset jack
Power source	Internal: Lithium Polymer battery
	Device charges via CH150-2™ rack
Battery life	Standby Time:
-	Audio playback time: up to hours
	 Video playback time: up to hours
	o Audio+* Tour: hours
Scalability	Device automatically downloads latest
	firmware and content updates when the Wi- Fi connection is activated.
	 Content and updates can also be downloaded via USB to CH150-2™ rack
Product capacity	1GB DDR, 8GB chip on board flash with
Froduct capacity	additional micro SD slot for up to 64GB
	Up to hours of Audio, up to digital photos
	or up to hours of video
Display characteristics	 Touch screen, 800x480 pixels (WQVGA),
• ,	3.5" TFT LCD, 16 million colors
Keyboard characteristics	Front Keyboard 17 buttons
	Touch Screen
Processor and OS	ARM Cortex A8 at 800 MHz with DSP
	Graphic accelerator: 3D OpenGL ES 2.0 Andraid 2.2
Video Black of	• Android 2.3
Video Playback	• MPEG-4 ² HD (up to 720p, 30 fps@6Mbps)
	 MPEG-4² (ASP@L5 AVI, up to DVD resolution, 30 fps@8Mbps)
	H.264 HD (HP@L3.1 up to 720p, 30
	fps@5Mbps)
	• WMV9/VC1 (AP up to 720p 30
	fps@10Mbps)
	M-JPEG (Motion JPEG Video) in VGA
	resolution



CONNECTING THEWORLDTOCULTURE

INNALIONAL	HEWURLDIUCULIURE
Audio Playback	Stereo MP3 CBR & VBR
-	• WMA, WMA-Pro 5.1
	WAV (PCM/ADPCM)
	• AAC, AAC+ 5.1 ³
	OGG Vorbis
	• FLAC
Photo viewer	JPEG, BMP, PNG, GIF
Subtitles	Support subtitles files
	with .srt, .ssa, .smi, .sub extensions, MKV / VOB embedded subtitles.
Accessibility	 Sight: The rubber keypad has a raised dot on the "5" key.
	Sound: The device will work with a personal induction loop. Internal speaker and headphone output volumes can be set to a
	high level.
Compliance	CE, RoHS / WEEE, Wi-Fi, Bluetooth, FCC
Alarm System	Bluetooth Low Energy security system
Other Features	Motion Sensor
	Near Field Communication
	Light Sensor
	Magnetically operated on / off switch
	4 way charging and data connector Charging LED
Discolaries	• Charging LED
Physical size	• 182mm (7.17") L x 72mm (2.83") W x 60mm (2.36") D
Colors	 Blue with silver strips around the sides and top
Shock Resistance	Drop tested to a height of 5 meters
N	

CH150-2™ Charging Rack

Capacity	50 XP-Iris 2, 5 rows of 10 cradles.
Material	Color code
Dimensions	(W x H x D) = 482.6 x 444.3 x 191.6 mm (19" x
	17.49" x 7.54")
Weight	10kg (22lbs) approx. (Without Players)
Operating range	104°F (40°C) / 32°F (0°C)
Storage range	140°F (60°C) / -4°F (-20°C)
Ambient Temperature	0 °C to +40 °C
Certifications	RoHS, CE, FCC, UL & TUV (Power Supply)





Type	Sennheiser HD31
Frequency response	20 - 20,000Hz
Transducer principle	Dynamic, open
Nominal impedance	300 Ω^* as standard
Characteristic SPL	94dB (at 1KHz)
THD	<1%
Ear Coupling	supra-aural
Contact pressure	approx. 1.3N
Weight (without cable)	approx. 50g
Connection cable	80cm length
Connector HD 31-16-0	right-angled 3.5mm stereo jack (ARiNC type A1)

Speaker

Impedance	8 ohms At 1000Hz/1v
Power	Normal 0.5Watts Max 1 Watt
Lower Resonant Freq.	800Hz +- 20%
Freq Range	600-20,000 Hz
Distortion	5% Max @ 1000Hz 0.1W