

## Q Acoustics Warranty

Q Acoustics loudspeakers are warranted free of defects in materials and workmanship for a period of 5 years from the date of purchase. During the warranty period Q Acoustics will, at its option, repair or replace any product found to be faulty after inspection by the company or its appointed distributor or agent.

Misuse and fair wear and tear are not covered by the warranty.

Goods for repair should, in the first instance, be returned to the supplying dealer. If this is not possible the item/s should be sent carriage paid, preferably in the original packaging, to Q Acoustics or their appointed regional distributor accompanied by proof of purchase. Damage sustained by goods in transit to the repair centre is not covered by the warranty. Return carriage will be paid by Q Acoustics or their distributor as appropriate.

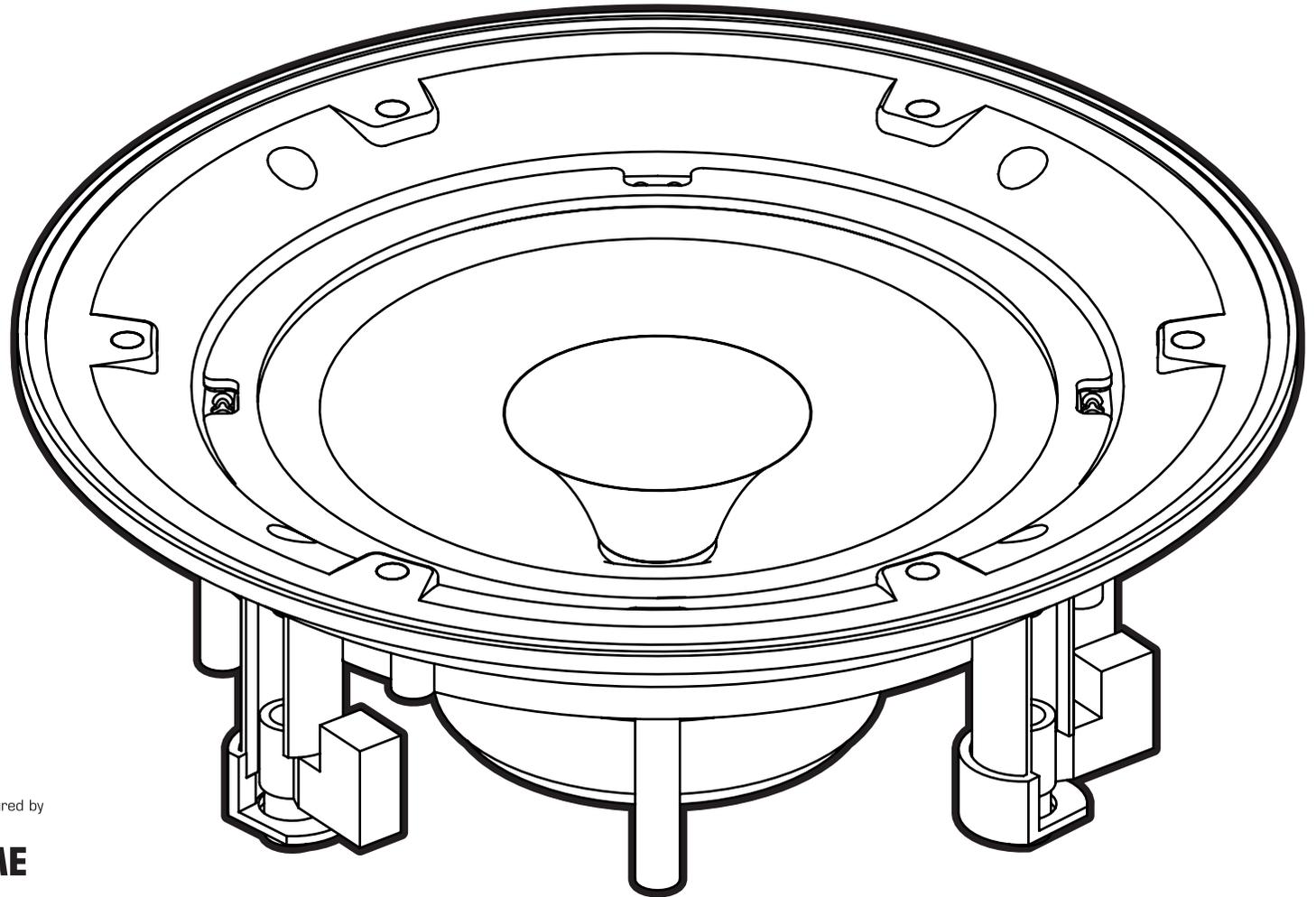
The warranty does not in any way affect your legal rights.



# INSTALL

## IN-CEILING BACKGROUND LOUDSPEAKERS

Quick start installation instructions for Qi 65CB



Q Acoustics is designed and manufactured by

**armourHOME**

Armour Home Electronics Ltd  
Stortford Hall Industrial Park  
Bishops Stortford, Herts,  
CM23 5GZ  
UNITED KINGDOM

[www.Qacoustics.co.uk](http://www.Qacoustics.co.uk)

Q147604S\_r2

**Thank you for purchasing Q Acoustics loudspeakers.**  
**Please take a few minutes to familiarise yourself with the installation procedure.**  
**The speakers are designed for installation into plasterboard ceilings or stud wall cavities.**

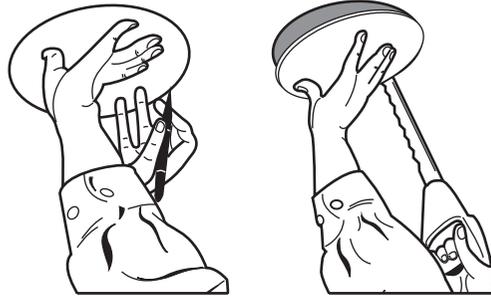
**Warning Notices**

- Before cutting the mounting hole ensure that there is no conflict with other in-ceiling or in-wall installed items such as pipe work, electrical cabling, gas pipes and supporting joists etc.
- It is important to ensure that the installation complies with all relevant building regulations.
- Take care not to apply pressure to the speaker cone and tweeter dome during installation.
- Ensure that the speaker model is suitable for use in the intended application. The QI 65CB should not be used where there are high levels of moisture.

**INSTALLING THE SPEAKERS**

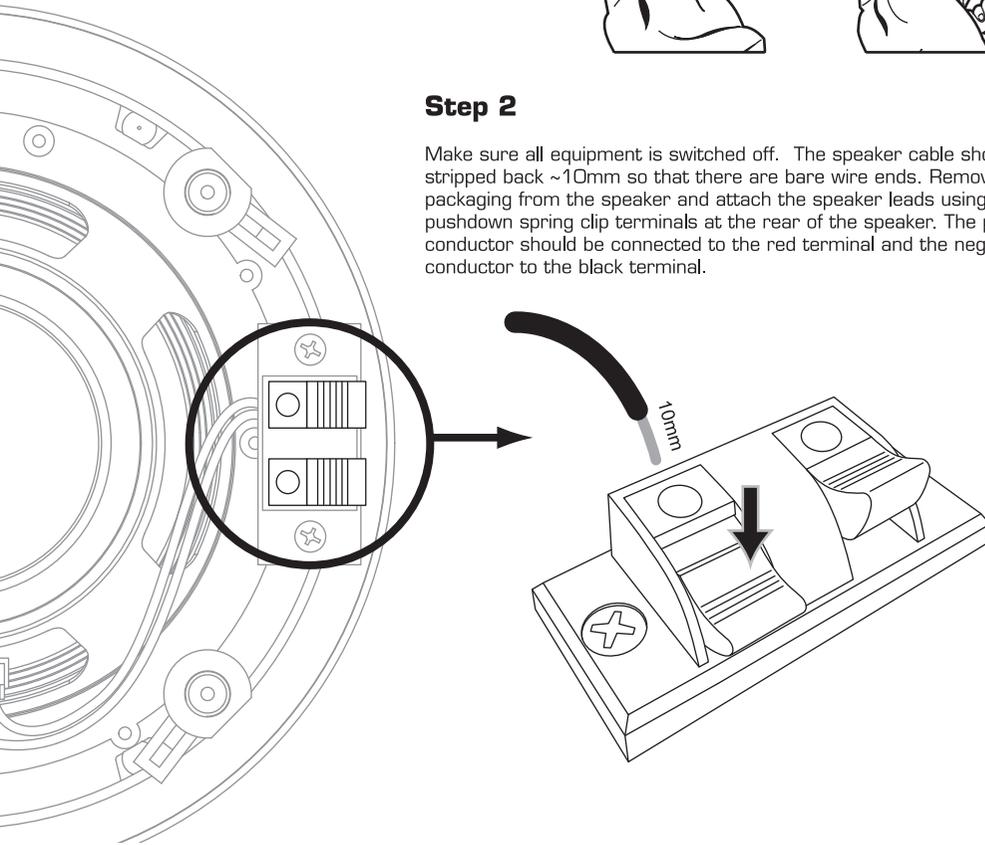
**Step 1**

Select a suitable mounting location for the speaker taking note of the Warning Notices above. Using the installation template supplied mark the speaker position and cut the mounting hole.



**Step 2**

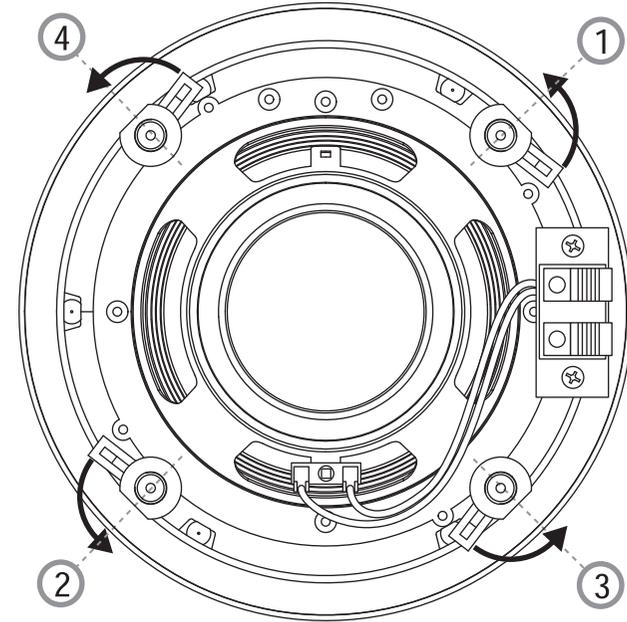
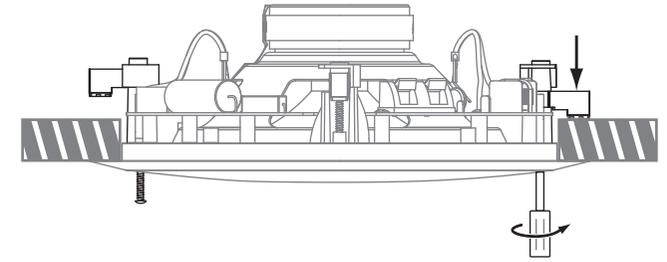
Make sure all equipment is switched off. The speaker cable should be stripped back ~10mm so that there are bare wire ends. Remove the packaging from the speaker and attach the speaker leads using the pushdown spring clip terminals at the rear of the speaker. The positive conductor should be connected to the red terminal and the negative conductor to the black terminal.



**Step 3**

Check that each of the 4 swing out clamps are rotated inwards. Push the speaker through the mounting hole and position flush with the ceiling.

Whilst holding the speaker in place tighten each of the mounting screws using a No. 2 Pozidriv® screw driver in the order shown in the diagram (below). When an increase in resistance is felt the clamp is in position.



**Step 4**

Once the speakers are installed they should be tested before the grilles are fitted.

**Step 5**

Locate the grille over the speaker bezel where it will be pulled into place.

**Grille backing cloth**

A white backing cloth behind the grille helps minimize visual contrast with the ceiling. For the very best sound performance it is recommended that this cloth is removed before use or after painting. To remove simply peel away the backing cloth from the grille.

# WA-2154D

## COMPACT CLASS D STEREO AMPLIFIER

### INSTRUCTION MANUAL



**FONESTAR**

We take this opportunity to thank you for buying this product.

We recommend you read the instruction manual before switching on the machine and follow the instructions that are given. Keep the manual for future reference.

## **SECURITY AND THE ENVIRONMENT**

### **ELECTRICAL SECURITY**

Check that the current in the mains connection where the machine is to be installed corresponds to the power supply of the machine.

To avoid damaging the equipment, electrical shocks, fire or physical injury when you connect or disconnect the equipment from the power supply, pull the plug firmly out of the mains socket holding the plug, never the cable.

Always do this with dry hands.

Keep the power supply cable far from sources of heat. Do not put heavy objects on top of it or change it.

Clean dust and dirt off the power supply cable regularly.

Do not open the machine; you could get an electric shock.

### **CAUTION**

While installing the machine, make sure it is switched off and unplugged.

Do not open the machine. Touching the internal parts is dangerous and you could receive an electric shock.

The machine must not be splashed or dripped on. Never place recipients with liquid inside on the machine.

Do not place anything inside the machine.

### **LOCATION**

Place the equipment on a horizontal surface with enough space around it to allow ventilation.

Avoid direct sunlight, heat sources and excessive dust.

Do not place the machine near magnetic fields or static electricity.

Do not use surfaces which vibrate or receive impact.

Do not pile machines on top of one another.

### **VENTILATION**

Never block or cover the ventilation slits on the machine.

Do not expose it to direct sunlight or place it near sources of heat.

### **PERIODS OF INACTIVITY**

When the machine is not going to be used for a long period of time, disconnect it from the mains.

If you are using an adapter, take into account that it will continue using electricity even if the machine is switched off. If it is not going to be used for a long period of time, disconnect it from the mains.

### **THE ENVIRONMENT**

To save energy, switch the machine off when you are not going to use it for a long time. The machine could contain substances that are harmful to the environment or human health. To minimize the effect of these substances the machine must be correctly managed and recycled when you decide to dispose of it.

When you dispose of it remember: it cannot be thrown into a conventional rubbish bin.

If it contains or uses batteries, these must be disposed of separately.

The machine (without batteries) must be disposed of correctly. Put it in a container specially intended for the collection of electronic and electrical appliances, at the dump or hand it over to the dealer when you purchase similar equipment, so that the dealer can dispose of it correctly (at no added cost).

## SIGNIFICANCE OF THE SYMBOLS ON THE MACHINE\*



The symbol formed by the expression “Class 1 laser product” written in a rectangle indicates that visible or invisible laser radiation could be produced. Avoid direct exposure to the laser.



The symbol formed by a ray of lightning inside a triangle shows that the machine has connection terminals or a circuit with areas with a current which could cause an electric shock, even in normal working conditions.



The symbol formed by an exclamation mark in a triangle shows that the instruction manual must be referred to for information on how the machine works and its use.



The symbol formed by one square inside another square shows that the machine has double electrical insulation.



The European Community symbol shows that the machine complies with the current European Union legislation, as well as its transposition to local legislation.



The symbol of a rubbish bin crossed out and over a horizontal line shows that when the product is disposed of it must be done properly, placing it in a special selective electronic and electrical equipment container or through a dealer when purchasing a similar product, at no additional cost. It also shows that the machine was put on the market after 13th August 2005 (European Community Directive 2002/96/CE of Electrical and Electronic recycling, and its Spanish equivalent R.D.208/2005).

In accordance with what is set out in the aforementioned decree, FONESTAR is registered in the RAEE (Registro de Aparatos Eléctricos y Electrónicos) in a special section REI (Registro de establecimientos Industriales), with the entry number 001851.

\*It is possible that some of these symbols do not appear on the machine.

### EXEMPTION OF LIABILITY

The characteristics of the equipment and the content of the manual can change without forewarning. **FONESTAR, S.A.** does not assume responsibilities regarding the inappropriate use of the equipment or the information supplied in this instruction manual, and specifically disclaims any implied liability for marketability or fitness for any other use.

All rights reserved by **FONESTAR, S.A.**

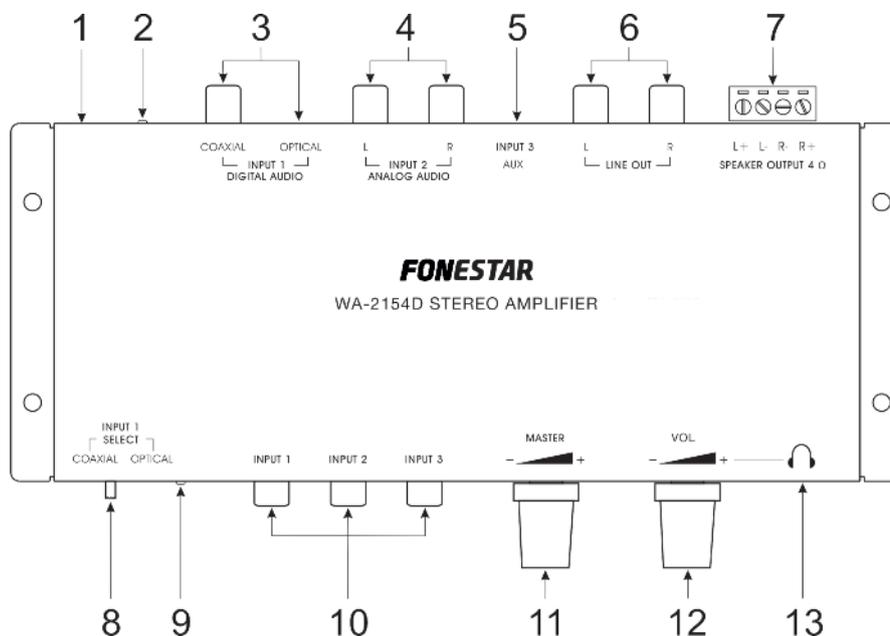
## DESCRIPTION

Amplifier designed specially for use in audio installations. Highly reliable with high quality audio. Compact and robust construction. Highly efficient class D amplification circuit.

Assembly recommended in small installations, behind flat screens, newsstands or stalls, digital billboards or classrooms.

## CONTROLS AND FUNCTIONS

### FRONT PANEL



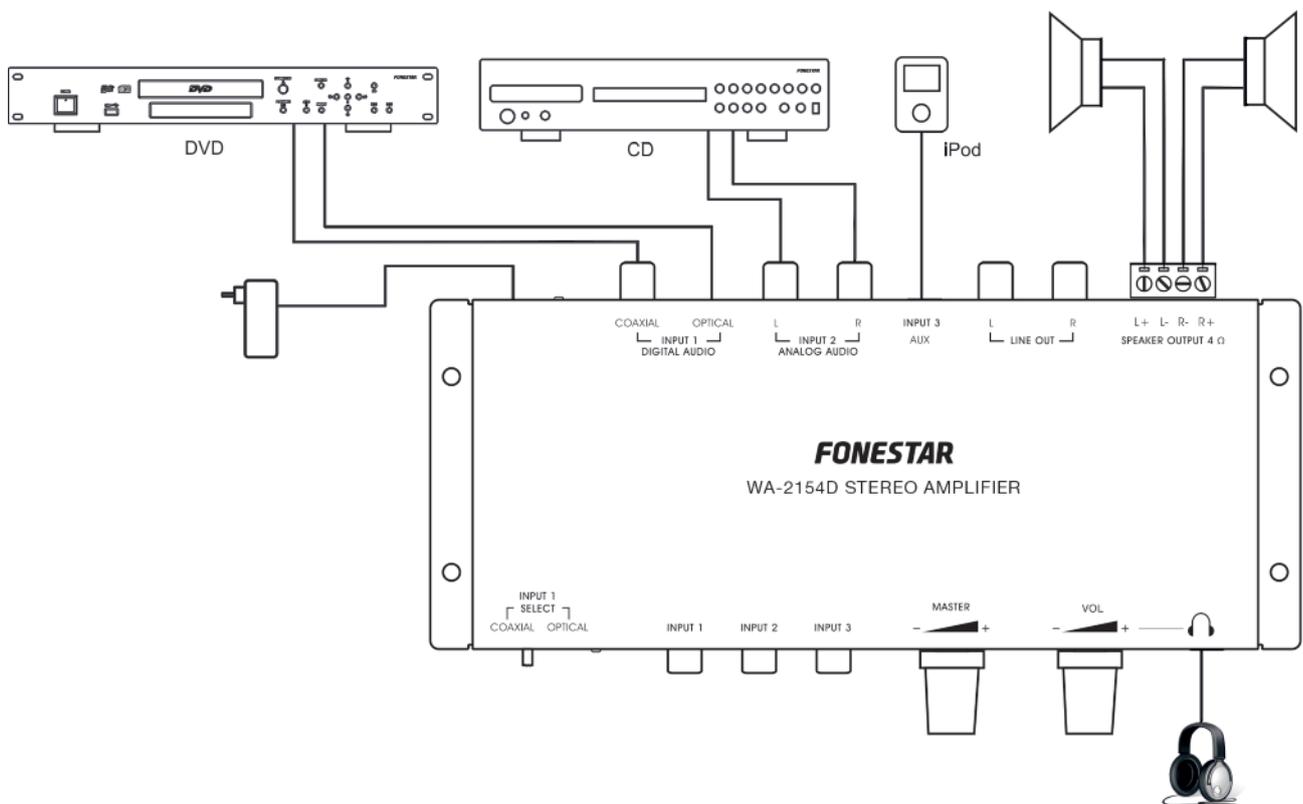
- 1.- **12 V DC:** power supply input for the mains adapter supplied.
- 2.- **POWER:** LED amplifier power indicator.
- 3.- **INPUT 1:** optical and coaxial SPDIF digital audio inputs, toslink and RCA connectors.
- 4.- **INPUT 2:** aux input for connecting audio sources, 2 x RCA connector.
- 5.- **INPUT 3:** aux input for connecting audio sources, 3.5 mm stereo jack connector.
- 6.- **LINE OUT:** balanced aux line output, 2 x RCA connector.
- 7.- **SPEAKER OUTPUT:** output for loudspeakers. For connecting low impedance loudspeakers 4-8 Ω.
- 8.- **INPUT 1 SELECT:** selector for the input 1 signal type: coaxial or optical.
- 9.- **INPUT 1 SIGNAL:** LED indicator for input 1 signal. It lights up green when it is connected and the corresponding input has been selected.
- 10.- **INPUT 1-2-3:** selectors for the corresponding input.
- 11.- **MASTER:** amplifier general volume control.
- 12.- **HEADPHONE LEVEL:** headpho output volume control.
- 13.- Headphone output, 3.5 mm stereo jack connector.

## CONNECTION

- Make the connections with the amplifier and all the audio system components switched off and disconnected from the mains.
- Connect the required audio sources to inputs INPUT 1 - 3. Then select the required source by pressing the corresponding switch.

**Note:** if you have both digital inputs connected (coaxial and optical), you must select the required input with the INPUT 1 SELECT switch.

- If you wish, connect headphones to the headphone output.
- Check that the general volume and headphone controls are at their minimum.
- Connect the loudspeakers to the low impedance outputs in a series/parallel circuit so that the load impedance from the loudspeakers is the same as the amplifier output impedance and the power supplied by the amplifier does not exceed that withstood by the loudspeakers.
- Once the connections have been made according to your needs, connect the equipment to the mains and switch it on. After use, do not forget to disconnect everything from the mains.



## TECHNICAL SPECIFICATIONS

	<b>WA-2154D</b>
<b>CHARACTERISTICS</b>	Compact class D stereo amplifier. Steel case for surface assembly. Digital and analogue audio inputs. Stereo loudspeaker output. Headphone output.
<b>POWER</b>	2 x 15 W RMS at 4 $\Omega$
<b>PROTECTION</b>	Short circuit and temperature
<b>RESPONSE</b>	20-20,000 Hz
<b>DISTORTION</b>	Harmonic: 0.06 % at 1 kHz
<b>INPUTS</b>	1 optical SPDIF, toslink 1 coaxial SPDIF, RCA 2 aux lines, 2 x RCA and 3.5 mm stereo jack
<b>OUTPUTS</b>	4-8 $\Omega$ loudspeakers, Euroblock 1 aux line, 2 x RCA 1 headphones, 3.5 mm stereo jack
<b>CONTROLS</b>	Input signal selector Digital input signal selector: optical or coaxial General volume Headphone volume
<b>INDICATORS</b>	LED power indicator LED indicator for input 1 signal
<b>POWER SUPPLY</b>	12 V DC, 2 A with adapter included
<b>DIMENSIONS</b>	205 x 25 x 108 mm depth

## DECLARATION OF CONFORMITY

### FONESTAR SISTEMAS S.A.

Polígono de Trascueto s/n  
39600 Revilla de Camargo, Cantabria (Spain)

Declares, under its responsibility, that the following equipment:

**Description:** Compact Class D stereo amplifier  
**Brand:** FONESTAR  
**Model:** WA-2154D

complies with the European Community directives 2004/108/CE on Electromagnetic Compatibility, 2006/95/CE on Low Voltage and 2011/65/UE on the restriction on the use of certain dangerous substances in electrical and electronic appliances (RoHS).

Santander, 29th October 2015



Juan Vallejo

Technical Engineer, Sales Department

## WARRANTY

This product has been tested and has passed the corresponding quality control prior to being put on the market. **FONESTAR** guarantees the suitability of the product for its specified use during a period of 2 years from the delivery date and commits itself to repair or substitute the goods as expressed in the Spanish law 'La Ley General para la Defensa de los Consumidores y Usuarios, Real Decreto Legislativo 1/2007 16 Noviembre.

The lack of conformity in the first six months after purchase, due to a manufacturing defect, will be rectified with no more than showing the proof of purchase. After six months **FONESTAR** reserves the right to demand proof of the product being sold with that problem.

This warranty does not include damage produced by: inappropriate use or negligence, accidents, worn out parts due to use, breakages, burns, spilt liquids or other substances, excessive humidity, battery deterioration and internal manipulation of the device, the software or its components by unauthorized persons, and in general any use that is unrelated to the nature and purpose of the product.

If any service is needed during the warranty period because of lack of conformity, please contact the business or distributor where the product was purchased in no more than 2 months after being conscious of the problem. It is only necessary to contact **FONESTAR** if it is impossible or imposes an undue burden for them to solve it.

To benefit from this warranty it is necessary to show the proof of purchase with the date clearly visible, with no corrections or crossing out.

This document adds information, and never decreases the consumers' rights, which in all cases are protected by the Spanish law 'La Ley General para la Defensa de los Consumidores y Usuarios, Real Decreto Legislativo 1/2007 16 Noviembre.



**FONESTAR** is a member of ECOEMBALAJES ESPAÑA, S.A. "ECOEMBES", with number 03497 and all our products carry the symbol, backed by our membership and subscription to the above mentioned organization with the recycling and subsequent management of our packaging.

FONESTAR, S.A. - NIF A28780443 - Polígono Trascueto - 39600 Revilla de Camargo, Cantabria (Spain)

[www.fonestar.com](http://www.fonestar.com)

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802.767 **RL** CONNEX

## **RX30 Universal Cable Red & Black 2 x 0.75mm<sup>2</sup> 10m**

10m Standard quality Red & Black stranded power 2x 0.75mm cable for automotive and other applications.

Product colour : Black, Red  
CSA : 0.75mm<sup>2</sup>  
Conductor : 24x0.2mm  
Sheath : Black, Red  
Outer diameter : 2.75 x 6mm  
Weight (kg) : 0,25