



black&whitesoundconnections



made in germany

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soundconnections

Pleasure is passion experienced by the senses. Pleasure and passion know no compromises. When the wind section starts to build suspense, a vibrato dies away, the finely-interwoven lines of the bass pizzicato linger vividly in the air, the phrases of a Haydn symphony resound pointedly in your ear, the bass fills the room sonorously and powerfully . . . you feel a shiver down your spine, your stomach vibrates, even your soul opens its deepest cavities, colours explode inside your head.

But no more than a wonderful four-course meal in the city's best restaurant is worth nothing if the mousse and game tureen are served together or the pike-perch fillet is cold when it reaches the table, the same applies to sound: the road to pleasure must be short, precise and smooth.

Demanding recordings, perfect storage devices, players, amplifiers and speakers are precisely tuned and coordinated. But en route from the electronics to the amplifier, monitor or speakers, undesirable secondary noises join in and repress the dynamics. High frequencies disappear forever and to top it all, the bass starts to growl insipidly. So much for pleasure.

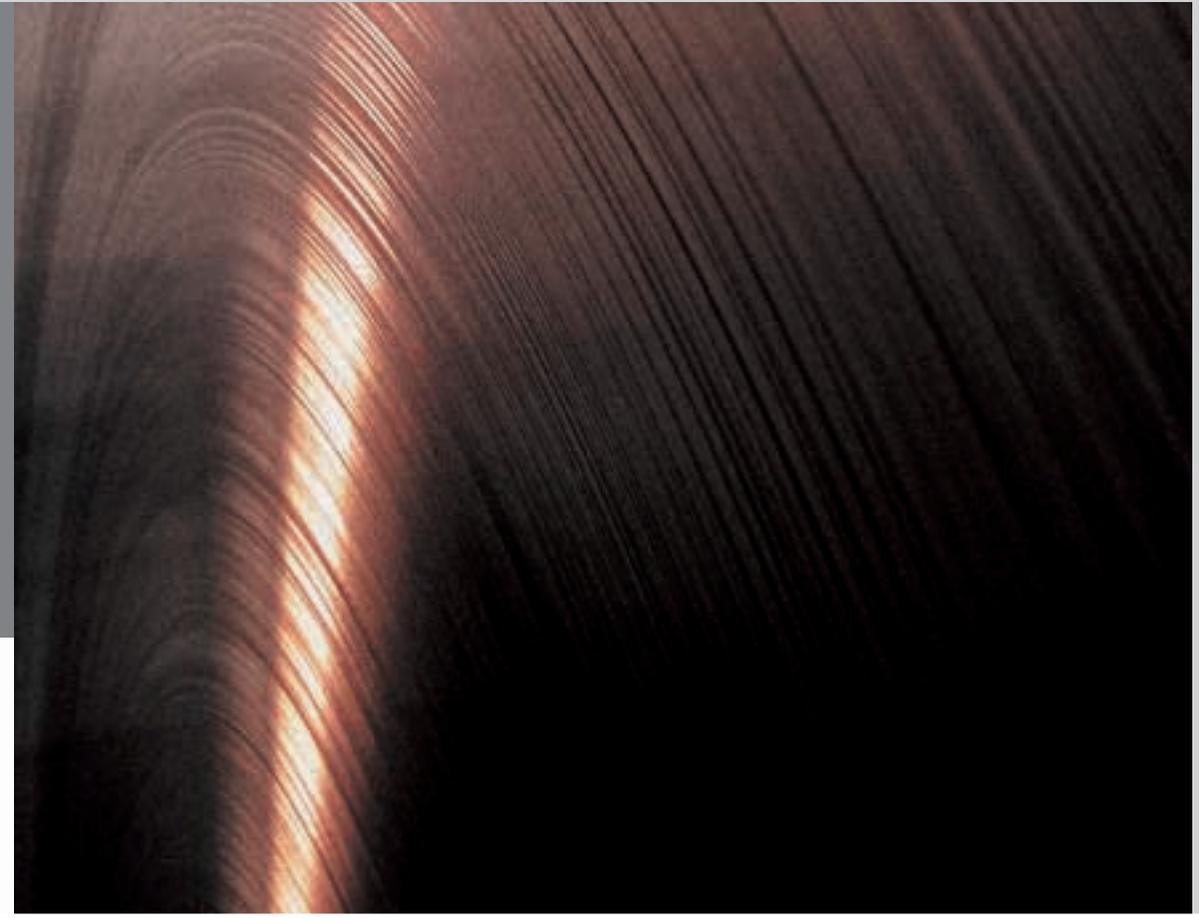
Pleasure knows no compromises

Cables and connections are susceptible to malfunctions. The difficult physical phenomena arising during the transport of signals can only be controlled via sophisticated technical expertise and the very best of materials. And this is the passion of black&white. No frills, no disguises. Real work down to the smallest detail using the very best materials. For pure sound pleasure. Especially using 02-Generation cables. This has been confirmed by independent tests all over the world. black&white from in-akustik sets the tone. The tone which flows to the pit of your stomach and the tips of your fingers and toes.

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Physics for an amazing sound

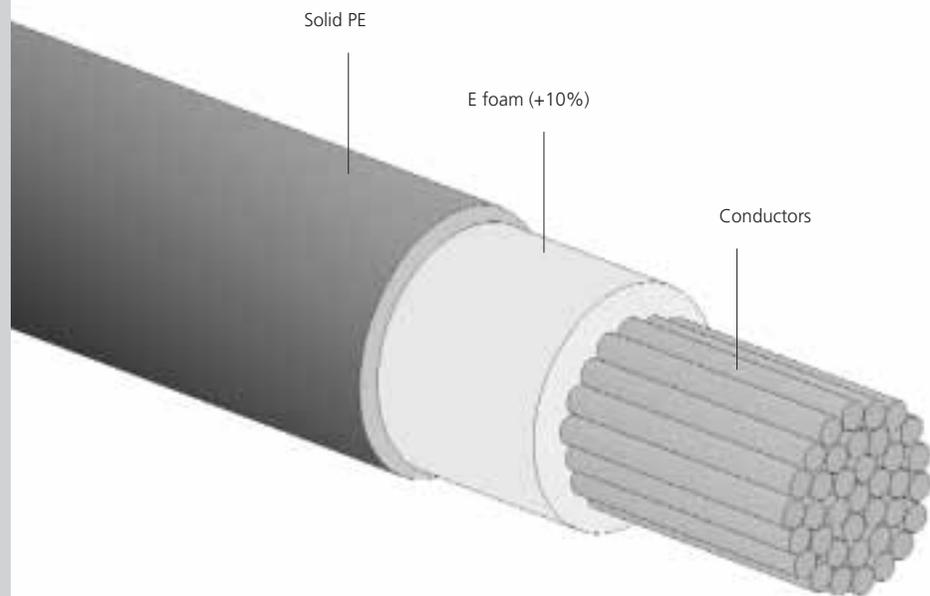
WE ALREADY KNOW THAT GOOD FOOD DEPENDS ON TWO THINGS: THE QUALITY OF THE INGREDIENTS AND THE SKILLS OF THE COOK. AND IT'S NO DIFFERENT WHEN IT COMES TO ENJOYING PERFECT SOUND. GOOD DESCRIPTIONS ARE ONE THING BUT WHERE TRANSPORT AND REPRODUCTION OF AUDIO SIGNALS ARE INVOLVED, ALL THE NICE TALK MASKS SOME COMPLEX PHYSICAL PHENOMENA – OR "HOT AIR". AND WE AT IN-AKUSTIK KNOW A THING OR TWO ABOUT PHYSICS. LIKE MUSICIANS MASTER THEIR INSTRUMENTS, WE MASTER OUR TECHNOLOGY. AND WE KEEP AN EYE ON THE QUALITY OF OUR "INGREDIENTS". FILIGREE SOLUTIONS AND SELECTED MATERIALS ARE WHAT TRANSFORM SOUND INTO AN EXPERIENCE.



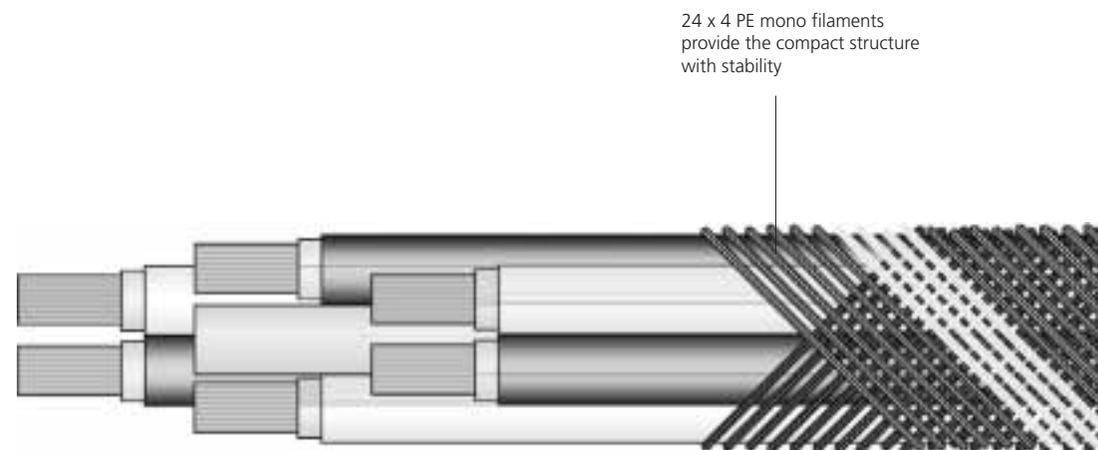
COPPER A LESSON IN PURITY

The transmission of audio signals is susceptible to many problems: resistance, inductance, capacity, dielectric properties of the insulation and skin effect can all impair sound quality. The material used in conductors is of great significance for any imperfection in the conductor material can prevent current flow, impair conductivity and increase the noise floor. That's why we only use particularly pure, oxygen-free, high-conductivity copper (OFHCC) for black&white cables. In our latest creation, the LS-1602, we even use high-purity mgc (medical-grade copper) with sensational conductivity properties.

Duo-PE II



PE-Network Jacket



INSULATOR HOT AIR

Good insulation material reduces interference. (So-called dielectric constants of insulation influence capacity.) Air is theoretically the best insulator but impractical due to poor stability. An insulation was therefore developed for black&white which combines the advantages of both. It comprises two layers of polyethylene; an excellent insulator. The first layer is injected with ten per cent more air than in the first generation and encloses the strands. This is then enclosed within a second solid PE insulating jacket providing the strands with even more stability. This DUO-PE II insulation prevents high capacities and facilitates the task of the amplifier.

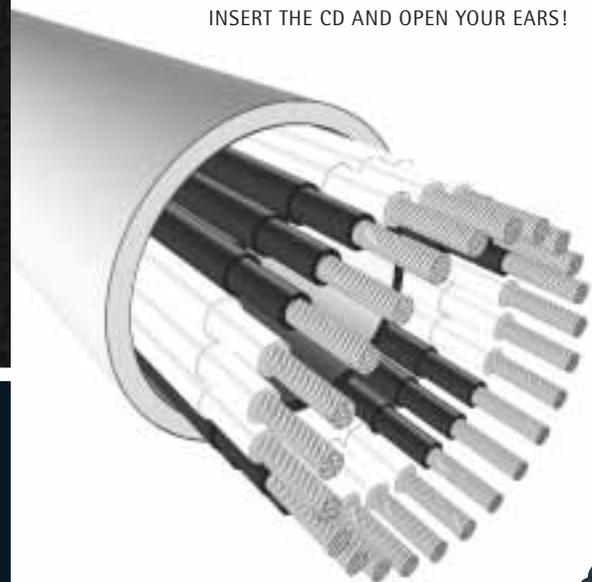
PE-NETWORK JACKET TIGHTLY BRAIDED

Each additional material used has a negative influence on the transmission of signals. Many cables have a PVC vest between the jacket braid and strands which has a negative influence on the electric parameters. Strands in black&white cables however are braided directly with the PE-network jacket in a complex process. The cables therefore comprise two materials only: copper and PE. The PE-network jacket is made of 24 x 4 mono filaments holding the strands together compactly. This reduces micro-vibrations and permits clean processing of extreme dynamic peaks.

HiFi Speaker Cables

LS-1602 / -1202 / -1102 / -1002 / -602 / -502

DISCERNING DEMANDS DEFINE THE BENCHMARK. INSERT THE CD, SIT BACK AND ENJOY. THAT'S HOW SIMPLE IT IS WHEN ALL OF THE COMPONENTS OF THE SYSTEM ARE FINELY TUNED AND COORDINATED. AUDIO SIGNALS REQUIRE JUST THAT BIT MORE. THEY COVER A GREAT DISTANCE FROM THE CD TO THE SPEAKERS WITH THE SECTION FROM THE AMPLIFIER TO THE SPEAKER ACCOUNTING FOR THE LONGEST BIT. BUT THE GREATER THE DISTANCE, THE MORE PRONE THE SYSTEM BECOMES TO PROBLEMS. EVEN IN THE VERY BEST RECORDINGS USING THE BEST HARDWARE AVAILABLE. BLACK&WHITE LOUDSPEAKER CABLES FROM IN-AKUSTIK HAVE ALWAYS SET STANDARDS. ALREADY THE FIRST LS-GENERATION WAS EXCEPTIONAL. IN THE FORM OF OUR 02-GENERATION, WE HAVE RAISED THE BENCHMARK YET ANOTHER NOTCH BECAUSE WE ARE ALWAYS ON THE LOOKOUT FOR PERFECT PLEASURE. SO SIMPLY INSERT THE CD AND OPEN YOUR EARS!

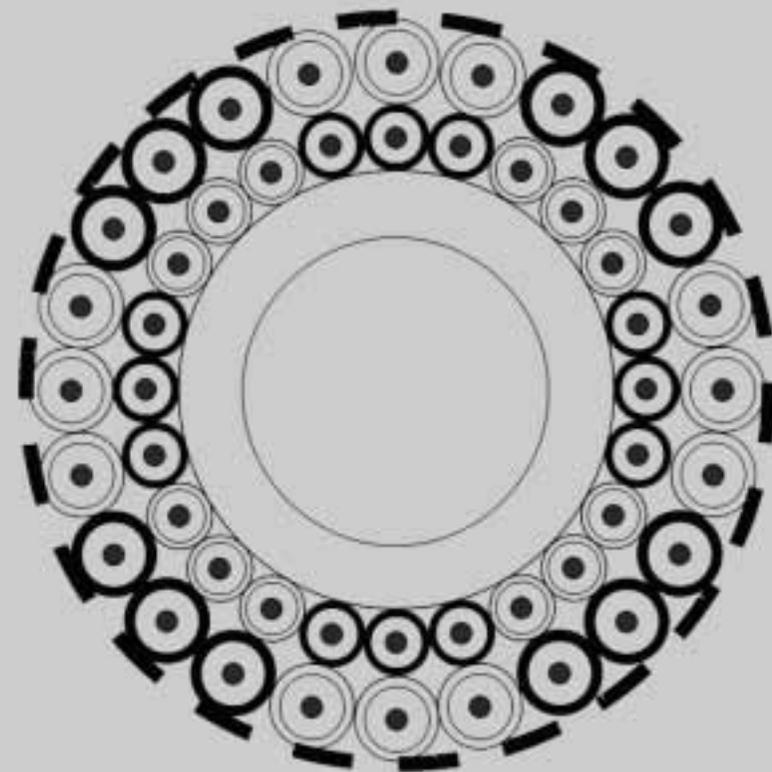


Speaker cable

LS-1602

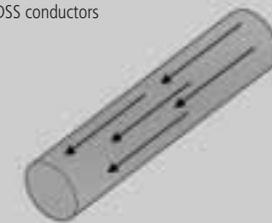


SPEAKER CABLE LS-1602		
ITEM NO.	DESIGNATION	CONNECTION
007816322	black&white LS-1602 2 x 3.0 m	BFA Banana
007816323	black&white LS-1602 2 x 3.0 m	Spade 6/8 mm

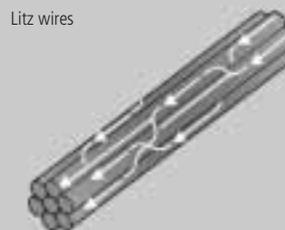


Conductor cross-section

DSS conductors



Litz wires



Because 100 per cent is just not enough. Boom!

The black&white LS-1602 represents a revolution. No other loudspeaker cable has ever undergone such a complicated manufacturing process. Using new sophisticated methods and the very best material available.

The 48 (!) conductors are made of selected mgc (medical-grade copper) from high-purity batches. This extraordinary purity can only be achieved by complex special tests resulting in a mathematical paradox: conductivity = 102 per cent. Boom!

In the case of standard cables, lots of fine litz wires are assembled enabling electrons to "jump" from one wire to another. Differing signals travel for different lengths of time whereby fast impulses are "slowed down". The DSS (Direct Signal Surface) conductors in the LS-1602 however comprise one single solid strand each. The result: identical transfer times accompanied by clear and powerful contours. Each individual strand avails of DUO-PE II

insulation. The strands are arranged in two layers around a hollow air filled tube in such a way that the magnetic fields overlap and are neutralised (multilayer). Such an arrangement is absolutely unique. Low inductance generates fast and linear reproduction – particularly in the critical medium-/high frequency range. Each conductor is subject to the so-called skin effect. With increasing frequency, the signal flows increasingly on the conductor surface. The higher the

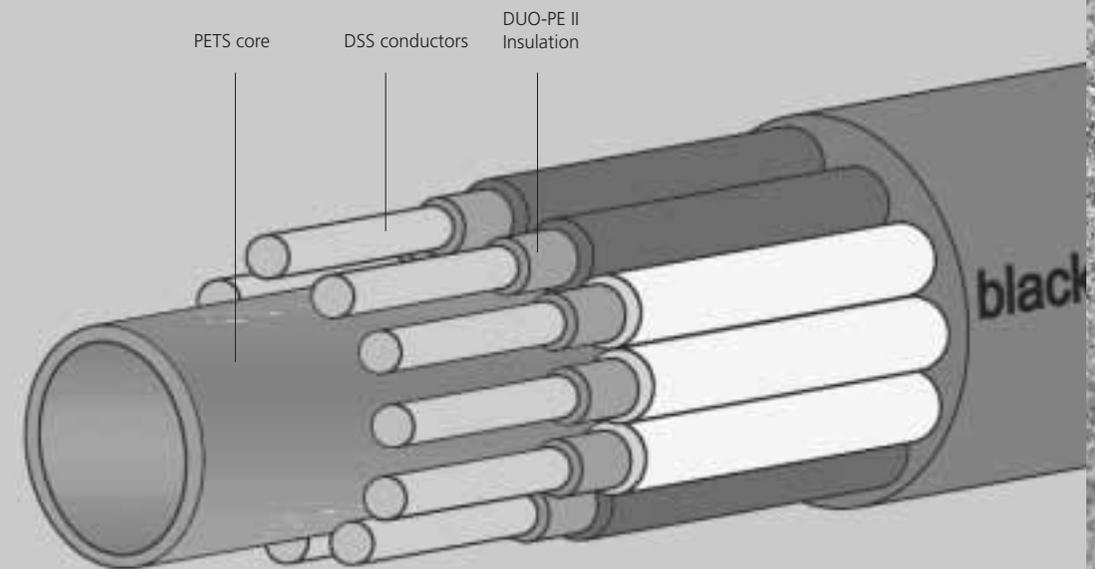
note, the smaller the effective cross section and the greater the resistance. In short: The smaller the conductor surface, the poorer the transmission of high frequencies. The 48 conductors in the LS-1602 avail of an enormous surface area: 600,000 mm² (two cables of 3 m each). And the skin effect is reduced significantly. The hollow-stranded conductor around which the strands are arranged is made of polyethylene and is filled with quartz

sand in the case of assembled LS-1602 products. This combination reduces micro-vibrations. The PE-network jacket comprising 24 mono filaments 1 mm thick is braided around the strands using a special machine exerting high pressure (per 800-gramme pull). This also helps to prevent micro-vibrations. Despite the complex structure, the entire cable comprises only two materials: mgc-copper and polyethylene. For a homogeneous sound.

Speaker cable **LS-1202**



SPEAKER CABLE LS-1202		
ITEM NO.	DESIGNATION	CONNECTION
00781202	black&white LS-1202 (sold by the metre)	
0078120231	black&white LS-1202 2 x 3.0 m SW	Screw Type
0078120232	black&white LS-1202 2 x 3.0 m SBW	Screw Type



A matter of faith. Faith can move mountains – but does not necessarily generate good sound. Fortunately, there are independent tests and laboratory analyses available. The LS-1202 is now regarded as one of the best loudspeaker cables on the market. Tested by “stereoplay” (8/2003), the successor to the legendary LS-1200 experienced a “highlight”. The filigree technology packed inside the LS-1202 was also the basis for development of the revolutionary LS-1602. The strands are made of oxygen-free copper (OFC). 24 DSS conductors are laid around a polyethylene tube which primarily consists of air, the very best insulation material around. For unbelievable sound!

In the case of the LS-1202, DSS conductors are used which only comprise of single solid strands – instead of lots of fine litz wires where signals take different routes. The transfer times are identical for DSS conductors while the contours are clear and powerful.

The conductors in the LS-1202 are very thin in order to avoid the skin effect. 24 conductors increase the effective conductor surface area thus reducing resistance. And therefore resistance is linear across all frequencies.

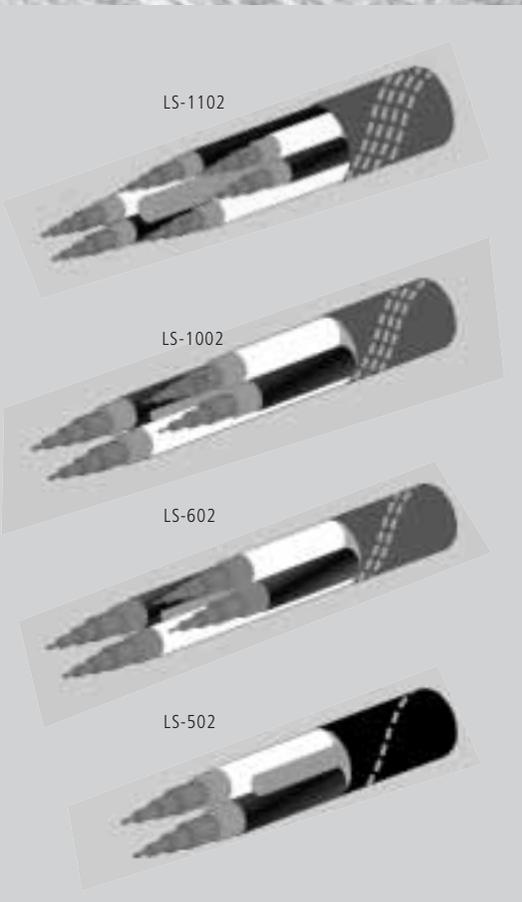
The strands are arranged around a hollow-constructed tube made of polyethylene. The very best insulation material in the form of “air” in the centre of the structure guarantees consistent capacity. Thanks to alternate arrangement of three positive conductors and three negative conductors, the magnetic fields overlap and are neutralised. After all, low serial inductance means unimpeded transport of music signals.

Speaker cable

LS-1102 | LS-1002 | LS-602 | LS-502



SPEAKER CABLE LS-1102 / LS-1002 / LS-602 / LS-502		
ITEM NO.	DESIGNATION	CONNECTION
00781102	black&white LS-1102 (sold by the metre)	
007811321	black&white LS-1102 2 x 3.0 m	Easy Plug
007811322	black&white LS-1102 2 x 3.0 m	BFA Banana
007811323	black&white LS-1102 2 x 3.0 m	Spade 6/8 mm
007811324	black&white LS-1102 2 x 3.0 m	Screw-type
00781002	black&white LS-1002 (sold by the metre)	
007810321	black&white LS-1002 2 x 3.0 m	Easy Plug
007810322	black&white LS-1002 2 x 3.0 m	BFA Banana
007810323	black&white LS-1002 2 x 3.0 m	Spade 6/8 mm
007810324	black&white LS-1002 2 x 3.0 m	Screw-type
00780602	black&white LS-602 (sold by the metre)	
007806321	black&white LS-602 2 x 3.0 m	Easy Plug
007806322	black&white LS-602 2 x 3.0 m	BFA Banana
007806323	black&white LS-602 2 x 3.0 m	Spade 6/8 mm
00780502	black&white LS-502 (sold by the metre)	
007805321	black&white LS-502 2 x 3.0 m	Easy Plug
007805322	black&white LS-502 2 x 3.0 m	BFA Banana
007805323	black&white LS-502 2 x 3.0 m	Spade 6/8 mm



Creating a legend. The 02 Generation of black&white loudspeaker cables picks up the thread of the legendary performance of the first generation. Now we are creating new legends. With a different arrangement of wires, better insulation and improved jacketing. The LS-1102, LS-1002, LS-602 and LS-502 are distinguished by their respective overall surface areas and cross section, numbers of strands and architecture (structure). Independent tests confirm the 02-Generation as having an excellent price/performance ratio.

The hot six: the LS-1102 uses strands in a triple symmetrical arrangement. The conductors are deliberately constructed with the CC-195 design to keep inductance low and resistance linear. Coolness with well-balanced and precise power.

The four strands of CC-309 design used on the LS 1002 are in double symmetrical arrangement. Made especially thick for a stronger basis and greater depth. The dynamic power-station.

The LS-602 is the smaller brother of the LS-1002; this speaker cable also has four, but thinner double symmetrical strands. The high packing density reduces the inductance factor to benefit mid- and high range frequencies. Our fine genius for pure reproduction.

The LS-502 has two symmetrically arranged strands. Thick strands allow this cable to perform without difficulty even on powerful systems. The fine one with plenty of energy.

CONCENTRIC COPPER

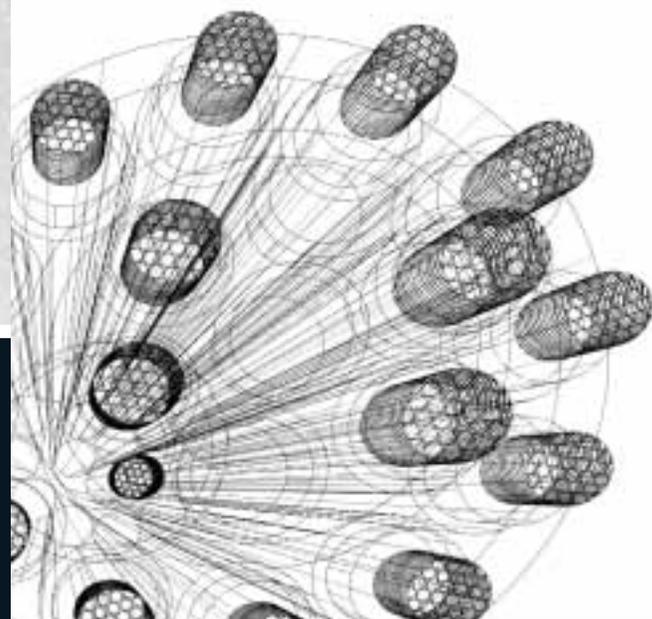
In standard cables, the individual wires in the strands are arranged chaotically. Resistance is particularly high, signals travel in zig-zag motion. This means that some signals travel further than others and high frequencies lose dynamism. In the concentric copper cables from black&white, 36 wires are arranged in several layers around a central wire.

Signals flow more harmoniously, pulses are reproduced precisely and spatial information is retained.

HiFi Audio Cables

NF-1202 / -202 / -102

AT THE HEART OF THE SOUND AGE. THE HEART IS NATURE'S MIRACLE. MUSCLES WORK AWAY IN SYNCHRONISATION SUPPLYING ORGANS WITH JUST THE RIGHT AMOUNT OF BLOOD. ONLY WITH FULL COOPERATION OF THE VEINS, OF COURSE. JUST LIKE IN A HIFI OR HIGH-END SYSTEM. EACH INDIVIDUAL DETAIL MUST WORK PRECISELY AND IN COORDINATION. THE O2 GENERATION OF BLACK&WHITE AUDIO CABLES TRANSFERS JUST THE RIGHT BEAT. BECAUSE THEY ARE BETTER PROTECTED FROM INTERFERENCE THANKS TO DSS, PETS AND DUO-PE II. THIS IS ALSO DOCUMENTED BY "CLINICAL" TRIALS. FOR EVEN A PULSE NEEDS TO HAVE A BEAT!



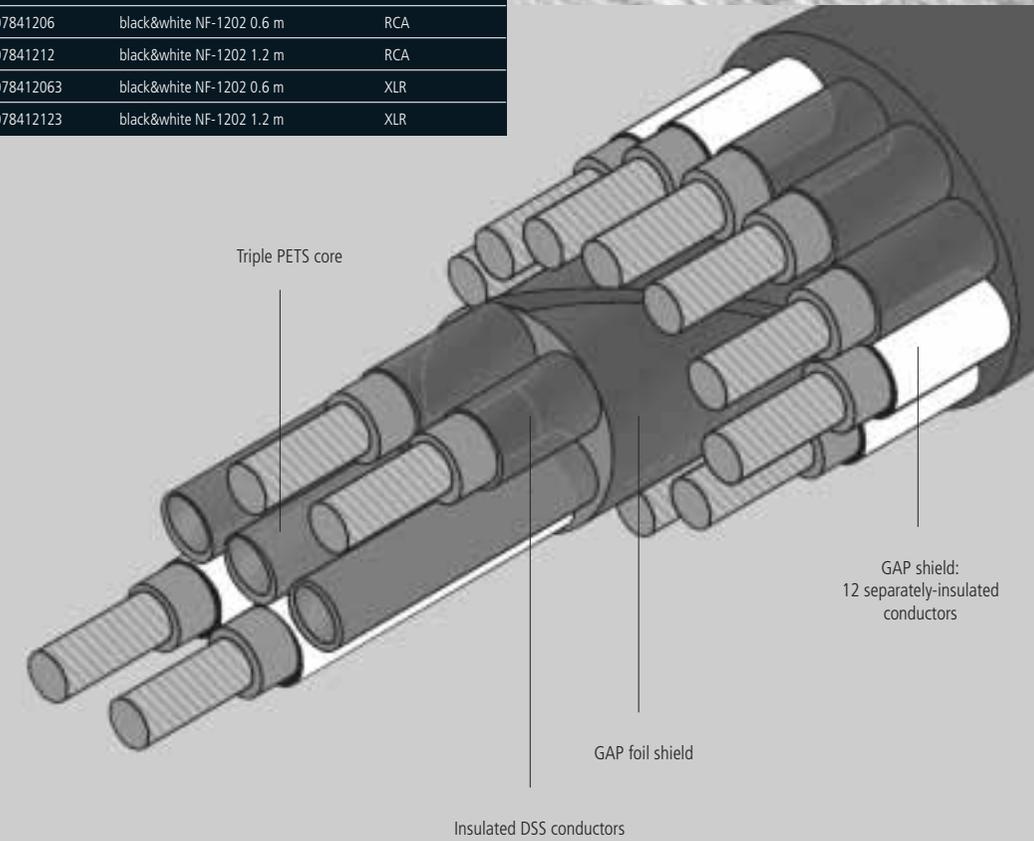
Audio cable

NF-1202



AUDIO CABLE NF-1202

ITEM NO.	DESIGNATION	CONNECTION
0078412	black&white NF-1202 (sold by the metre)	
007841206	black&white NF-1202 0.6 m	RCA
007841212	black&white NF-1202 1.2 m	RCA
0078412063	black&white NF-1202 0.6 m	XLR
0078412123	black&white NF-1202 1.2 m	XLR



A heart made of copper. In the form of the NF-1202 audio cable, black&white presents a sonorous vein. Independent laboratory and audio tests have attributed the NF-1202 excellent features right from the beginning with power, dynamics and precision outperforming everything else. A feat for strong hearts with powerful veins.

The heart of the black&white NF-1202 audio cable beats in the centre: four DSS conductors made of high-purity copper (OFC) transfer perfect sound signals at just the right moment. Their surfaces are extraordinarily smooth (Direct Signal Surface) for harmonious signal propagation and precise reproduction of high notes. The conductors are extremely thin to enable every tone in each frequency to travel at the same speed.

Like in black&white loudspeaker cables, the strands in the NF-1202 are insulated using a dual jacket of polyethylene (DUO-PE II). Three PETS cores (polyethylene tube support) between the signal conductors and ground conductors form additional air insulation in order to reduce capacity. The NF-1202 is ultra-fast and transfers spot-on.

A critical aspect among audio cables is represented by eddy currents caused by inductance. Standard, comprehensive shields act like short-circuited secondary circuits. The eddy currents alter the music signals leading to a deterioration in dynamics. The black&white NF-1202 audio cable counteracts this with its "GAP"-shield. The DSS conductors are enclosed in an open foil shield.

Above that, there are twelve separately insulated and precisely stranded single wires which are not closed radially either. DUO-PE II insulation and the open arrangement prevent the formation of secondary circuits. And the music remains powerful and dynamic.

Audio cables

NF-202



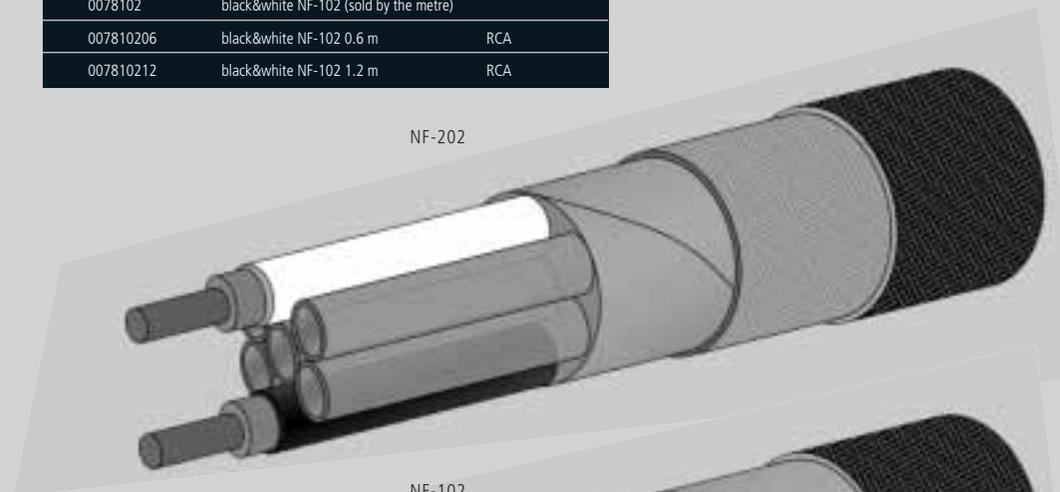
NF-102



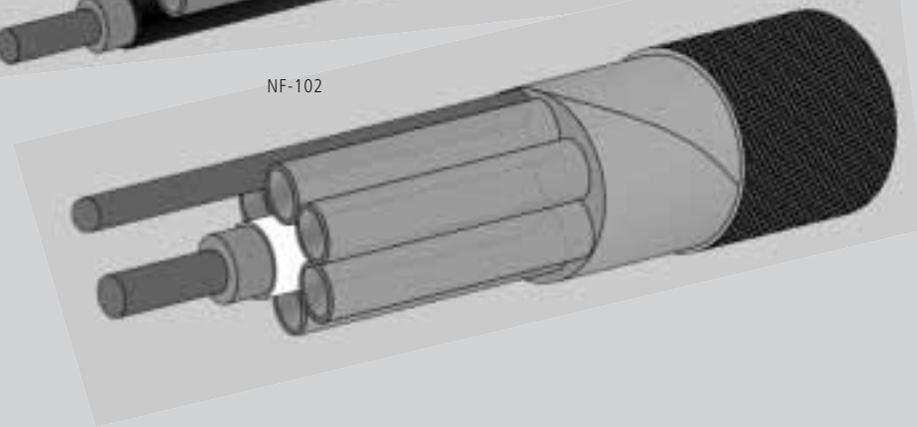
AUDIO CABLE NF-202/-102

ITEM NO.	DESIGNATION	CONNECTION
0078202	black&white NF-202 (sold by the metre)	
007820206	black&white NF-202 0.6 m	RCA
007820212	black&white NF-202 1.2 m	RCA
0078102	black&white NF-102 (sold by the metre)	
007810206	black&white NF-102 0.6 m	RCA
007810212	black&white NF-102 1.2 m	RCA

NF-202



NF-102



A sensual duet. The first steps taken by audio signals are shaky ones. The devices only send weak impulses to the amplifier making them all the more susceptible to all types of problems. For this reason, the 02 Generation of audio cables has integrated several new protective features: high-purity copper (OFC), optimum insulation material and an exact arrangement of all elements. The focal point of this NF line is also formed by DSS technology. The conductors are solid and extremely thin for uniform propagation times. And the cables are securely packed in a PE-network jacket to prevent micro-vibrations: to ensure that the smaller notes do not start to waver right at the beginning.

The ground conductor on the NF-202 has the same size as the signal conductor and is sheathed by DUO-PE II insulation. Both conductors keep maximum distance from each other (symmetrical design). Between them are five polyethylene tubes for perfect insulation. An aluminium-coated foil and, above this, a high-density copper braid shield the entire construction from external influences. The sound protector.

With the NF-102, the signal conductor with DUO-PE II insulation is in the centre. This conductor is surrounded by six hollow PE tubes. The best insulation material – air – prevents unwanted capacitance. The mass conductor is run along the outside edge (coaxially to the signal conductor). The practi-cable.

HiFi Digital Cable ON/OFF-12

FINE IN EVERY SENSE OF THE WORD. DIGITAL TECHNOLOGY IS A FINE THING: SIMPLY PLUG IT IN AND IT WORKS. SUPPOSEDLY LOSS-FREE. UNFORTUNATELY, THE REALITY LOOKS SOMEWHAT DIFFERENT. DATA LOSSES CAUSED BY JITTER EFFECTS AND REFLECTIONS DUE TO BADLY MATCHED CABLES MAKE IT PARTICULARLY DIFFICULT FOR THE D/A CONVERTER TO CORRECT FAULTS. AND THE CORRECTED MUSIC SIGNAL OFTEN HAS LITTLE IN COMMON WITH THE ORIGINAL. THE BLACK&WHITE ON/OFF-12 DIGITAL CABLE AVAILS OF ALL THE FINESSES TO COUNTERACT SUCH PROBLEMS. A FINE THING INDEED.



DIGITAL CABLE ON/OFF-12

ITEM NO.	DESIGNATION	LENGTH
007812	black&white ON/OFF-12	(sold by the metre)
00781206	black&white ON/OFF-12	0.6 m
00781212	black&white ON/OFF-12	1.2 m

Unlike other digital cables, the ON/OFF-12 is using a solid, silver-plated inner conductor which ensures that the 75-Ohm surge impedance is adapted precisely to the components while the silver-plating is perfect for reducing losses. Shielding in the form of a foil screen and a braided shield which is also silver-plated ward off interference from the outside. For natural pleasure in musical details.



HiFi Accessories

WELL-CONCEIVED UP TO THE END. SO MANY THINGS TO TAKE CARE OF. AFTER ALL, SOUND IS VERY COMPLICATED. NOTHING CAN BE LEFT TO CHANCE. AT LEAST THAT'S HOW WE AT IN-AKUSTIK SEE IT – AND WE DO OUR BEST TO ACCOMMODATE FRIENDS OF UNCOMPROMISING PLEASURE. ABSORBERS, CONNECTIONS AND ADAPTERS FROM BLACK&WHITE FOR ULTIMATE FINE-TUNING. PLEASURE SIMPLY KNOWS NO COMPROMISES.

ACCESSORIES

ITEM NO.	DESIGNATION	
00789105	black&white RCA-105 10.5 mm	bulk
0078985	black&white RCA-80 8.0 mm	bulk
0078965	black&white RCA-60 6.0 mm	bulk
0078930	black&white spade KS-30 6/8 mm	set of 4
0078960	black&white spade KS-60 6/8 mm	set of 4
009 71101	Spade adapter	set of 4
007891681bw	BFA adapter	set of 4
009 71104	Flexible pin adapter	set of 4
0078940	black&white Pic	set of 4
0078941	black&white protection plate	set of 4



KS-30 & KS-60

Loudspeaker connections are susceptible to the greatest losses at the connection points between cable and loudspeaker. Standard spades are nickel-plated and then gold-plated. The black&white KS-30 and KS-60 pure copper spades however are gold-plated directly – thus reducing the contact resistance.

RCA-60, -80, -105

black&white plug connectors are solid gold-plated and manufactured exerting utmost care. A guarantee for optimum transfer and maximum interference immunity for all audio and digital cables. The slit ground ring ensures perfect hold and optimum contact across eight independent contact areas.

SPADE-ADAPTER

The gold-plated spades in 6 mm and 8 mm design with internal thread matches the screw-type connections for LS-1002, LS-1102 and LS-1202 cables.

BFA-ADAPTER

The gold-plated BFA adapter can be used as a BFA or banana plug. Thanks to its internal thread, it matches the screw-type connections for LS-1002, LS-1102 and LS-1202 cables.

FLEXIBLE PIN-ADAPTER

The flexible pin adapter is a flexible pig-tail lead for small or difficult-to-access connection terminals on amplifiers and loudspeakers. The gold-plated design with internal thread matches the screw-type connections for LS-1002, LS-1102 and LS-1202 cables.

PIC-40 UND PLATE-40

Our Pic-40 is a solid sub-frequency absorber for setting up devices and speakers. It increases stability and prevents vibrations as well as natural resonance. Making the tone more precise and sharper. Height-adjustable and with adhesive pad. And under the Pic: a Plate-40 to protect delicate surfaces.

HiFi The First Generation

ACCESSORIES

ITEM NO.	DESIGNATION	LENGTH
00780300	black&white LS-300 loudspeaker cable	(sold by the metre)
007811	black&white NF-11	(sold by the metre)
00781106	black&white NF-11	0,6 m
00781112	black&white NF-11	1,2 m
007821	black&white NF-21	(sold by the metre)
00782106	black&white NF-21	0,6 m
00782112	black&white NF-21	1,2 m
007841	black&white NF-41	(sold by the metre)
00784106	black&white NF-41	0,6 m
00784112	black&white NF-41	1,2 m
007821126	black&white NF-21 5.1 cable	1,2 m
007841126	black&white NF-41 5.1 cable	1,2 m



LS-300

The LS-300 is manufactured using fine oxygen-free copper (OFC) litz wires and equipped with DUO-PE technology. For the very best test results thanks to extremely fine resolution and a gentle, soft sound.

NF-11

A classic audio cable with central signal conductor, DUO-PE insulation and high-density braid shielding.

NF-21

Two signal conductors with DUO-PE insulation, protected under a high-density shielding braid, offer a high degree of interference immunity and signal-free shielding in the case of the NF-21 audio cable. The music signals are free of external influences for reproduction down to the last detail.

NF-41

Double power: four DUO-PE insulated inner conductors in the NF-41 audio cable ensure very low inductance. Thus the music signal, which is very stable at high-quality device outputs, reaches its destination with controlled precision.

NF-21 5.1 AND NF-41 5.1 (SACD CABLE)

The high-quality 5.1 audio cable sets (6-cinch connector plugs) are based on the NF-21 und NF-41 and are fitted with gold-plated RCA-60 or RCA-80 plugs made of full metal. The clear cable markings permit easy allocation of channels and directions. The NF-21 5.1 avails of a symmetric structure while the NF-41 5.1 has a dual-symmetric one.