



Wilson benesch

THE FUTURE IS CARBON

IGx - Infrasonic Generator
User Manual

Dear Valued Customer,

To the cognoscenti of British high-performance audio, the Wilson Benesch marque is recognised as one of the world's leading loudspeaker, turntable and audio accessory design and manufacturing companies. We are honoured that you have chosen the IGx Infrasonic Generator for your personal audio system. Our team of engineers, craftspeople and designers have devoted every effort to manufacture this reference class product and we are extremely proud to present it to you. Our products are engineered to last a lifetime and we wish you many hours of enjoyment from your music collection with a Wilson Benesch IGx at the heart of the system.

Before starting your journey, we encourage you to pay special attention to the information contained in this manual. The IGx has been designed and built with precision. However, in order to extract maximum performance from the product, it is critical that it is setup correctly. Should you have any questions or require assistance, please do not hesitate to contact your authorised dealer or distributor.

On behalf of all the Team at Wilson Benesch,

A handwritten signature in black ink, appearing to read 'Craig Milnes', with a stylized, sweeping flourish extending to the right.

Craig Milnes, Design Director

A handwritten signature in black ink, appearing to read 'Christina Milnes', with a stylized, looping flourish.

Christina Milnes, Managing Director

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1.0 Registering your IGx Infrasonic Generator

Please register your IGx within 30-days of receipt of the product to receive your full warranty.

Failure to register your IGx within 30-days will limit your warranty to 90-Days only.

All conditions of our warranty are detailed in section '15.0 Limited Warranty'. Please refer to our terms and conditions at the back of this product manual for more information.

Product registration can be completed online using this link: <https://wilson-benesch.com/product-registration/> or by scanning the QR code below. Please complete all fields fully to validate your product warranty.



2.0 Warnings & Important Safety Instructions

Before unpacking the IGx please observe the instructions in this manual. Furthermore, please note the checklist on the opposite page for what is included in the product packaging.

During installation, please observe normal procedures for lifting and correct posture when handling the product. Never attempt to unpack or install the IGx without assistance as this can result in damage to the product and/or personal injury. It is strongly recommended that all watches and jewelry be removed prior to unpacking and gloves worn to allow better grip of the product and protection to the surface finish.

Once the IGx has been installed the protective covering and the packaging can be stored for future use. This packaging is essential for safe shipment of the product. It is designed and tested specifically for use with the product. Due to the bespoke nature of the packaging, replacement costs are not insignificant and it is highly recommended therefore, that the packaging is retained for any potential later use.

1. Read all of these instructions
2. Save these instructions for future use.
3. Heed all warnings.
4. The grille is provided to protect the diaphragm when the IGx is not in use. Users leaving the grille on during playback do so at their own risk. Warning, if the IGx is driven hard the grille might physically move and could damage the surface finish. Wilson Benesch recommend removing the grill during playback.
5. Do not use this apparatus near water.
6. Do not use any cleaning products or chemicals on the surface finish. Clean only with a micro fiber cloth.
7. Do not touch the chrome motor in the centre of the IGx, the oil in your skin can corrode the surface finishing on the motor.
8. Install in accordance with the manufacturer's instructions.
9. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
10. Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
11. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
12. Only use attachments/accessories specified by the manufacturer.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel designated by Wilson Benesch.

Design Safety

This apparatus is supplied with a detachable mains cord. The mains filter is fitted with a T2A (20mm x 5mm). Should the fuse need to be replaced use a similar rated fuse approved to ASTA or BSI 362 standards. Do not use without the fuse cover in place. Replacement fuse covers are available from your distributor.

2.1 Design Safety Model IGx230 only

The IGx is supplied with a detachable mains cord. The mains filter is fitted with a T2A Fuse (5mm x 20mm). This is located on the rear panel of the IGx and can be identified on the diagram on page 10. Should the fuse need to be replaced use a similar rated fuse approved to IEC 60939-2:2005 or UL 1449 standards. Do not use without the fuse cover in place. Replacement fuse covers are available from the manufacturer.

The IGx is also fitted with a driver fuse (5mm x 20mm). This is located on the rear panel of the IGx and can be identified on the diagram on page 10. The fuse that is fitted to the IGx is different depending on the voltage that the IGx has been built and set to. It is important that the backpanel of the IGx is observed and that the correct fuse is fitted according to the markings on the product.

IGx 230V only

The IGx 230V is fitted with a T2A driver fuse (5mm x 20mm). Should the fuse need to be replaced use a similar rated fuse approved to IEC 60127-1:2015, IEC 60127-2:2014, UL 248-1, CSA C22.2 No 248.1 standards. Do not use without the fuse cover in place. Replacement fuse covers are available from the manufacturer.

IGx 110V only

The IGx 230V is fitted with a T2A driver fuse (5mm x 20mm). Should the fuse need to be replaced use a similar rated fuse approved to UL 248-1 or CSA C22.2 No 248.1 standards. Do not use without the fuse cover in place. Replacement fuse covers are available from the manufacturer.

3.0 What is included with your IGx

	IGx
Product Manual	•
Warranty Registration Card	•
3x Kinematic Location Cups	•
1x Product Grille	•
1x High Level Neutrik Cable	•
1x 3m IEC Power Cable	•

4.0 The IGx Back Panel & Connections

Always ensure that the IGx is switched to the off position before connecting or disconnecting any cabling.

Connections Illustrated on the opposite page:

- 1) High Level Input for connection to power amplifier outputs with High Level Lead.
- 2) Variable Phase Control Bypass Switch allows 'On' and 'Off' settings
- 3) Low Level Left RCA Input for connection to a pre-amp output.
- 4) Low Level Left XLR Balanced Input for connection to a pre-amp output.
- 5) Low Level Right RCA Input for connection to a pre-amp output.
- 6) Low Level Right XLR Balanced Input for connection to to pre-amp output.
- 7) Driver Fuse
- 8) Mains Power Supply Input - IEC Connector.
- 9) Filter Fuse
- 10) Mains Power On/Off Switch

The high level input is an unbalanced dual channel (stereo) input that uses a professional touch proof Neutrik Speakon connector. Signals for this input would normally be sourced from the left and right speaker terminals of the main system amplifier. The advantage of this method is that the IGx receives the same signal that is driving the main speakers and will retain characteristics of the main amplifier, aiding in integration between the IGx and main speakers.

A low level input is made using either the unbalanced RCA inputs marked as "IN" on the front panel or alternatively the balanced XLR inputs. Signals for the low level input are unbalanced.

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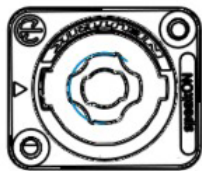
6

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8

9

10



HIGH LEVEL INPUT



VARIABLE
PHASE



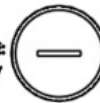
RIGHT INPUT



LEFT INPUT

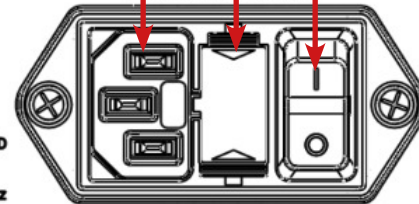


DRIVER FUSE:
T3.15A 250V



WILSON BENESCH LTD
POWER: 650W
FREQUENCY: 50/60Hz
VOLTAGE: 230V
MODEL: IGx230

230V AC 50/60Hz 650W
HOT PARTS REMOVE POWER AND WAIT ONE
HOUR BEFORE HANDLING



AMP FUSE: T2A 250V

5.0 High Level Connection using Neutrik Speakon Cable

Method 1: HIGH LEVEL IGx AMPLIFIER INPUT

WARNING: It may not be possible or advisable to connect the high level input directly to an amplifier that has a class D digital output. Please check with the supplier of your amplifier that this form of connection is possible.

PLEASE ALSO NOTE: The high level lead and connection must not be used with a power amplifier of dual mono bridged design as this may damage the power amplifier.

The IGx can be connected by the low level connection as shown below in method 2, if your power amplifier is unsuitable for high level connection.

It is strongly advised that the IGx is installed, by a suitably trained person, to avoid causing damage or injury resulting from an incorrect installation.

The diagram opposite shows how to connect to the high level input of the IGx. Using the supplied Neutrik Speakon cable, connect the IGx to the output of your amplifier. In effect you are Bi- Wiring your IGx to your power amp. Please note that the Neutrik cable has only three wires and is arranged this way to preserve the star-earthing of your amplifier (assuming it has a star earth arrangement).

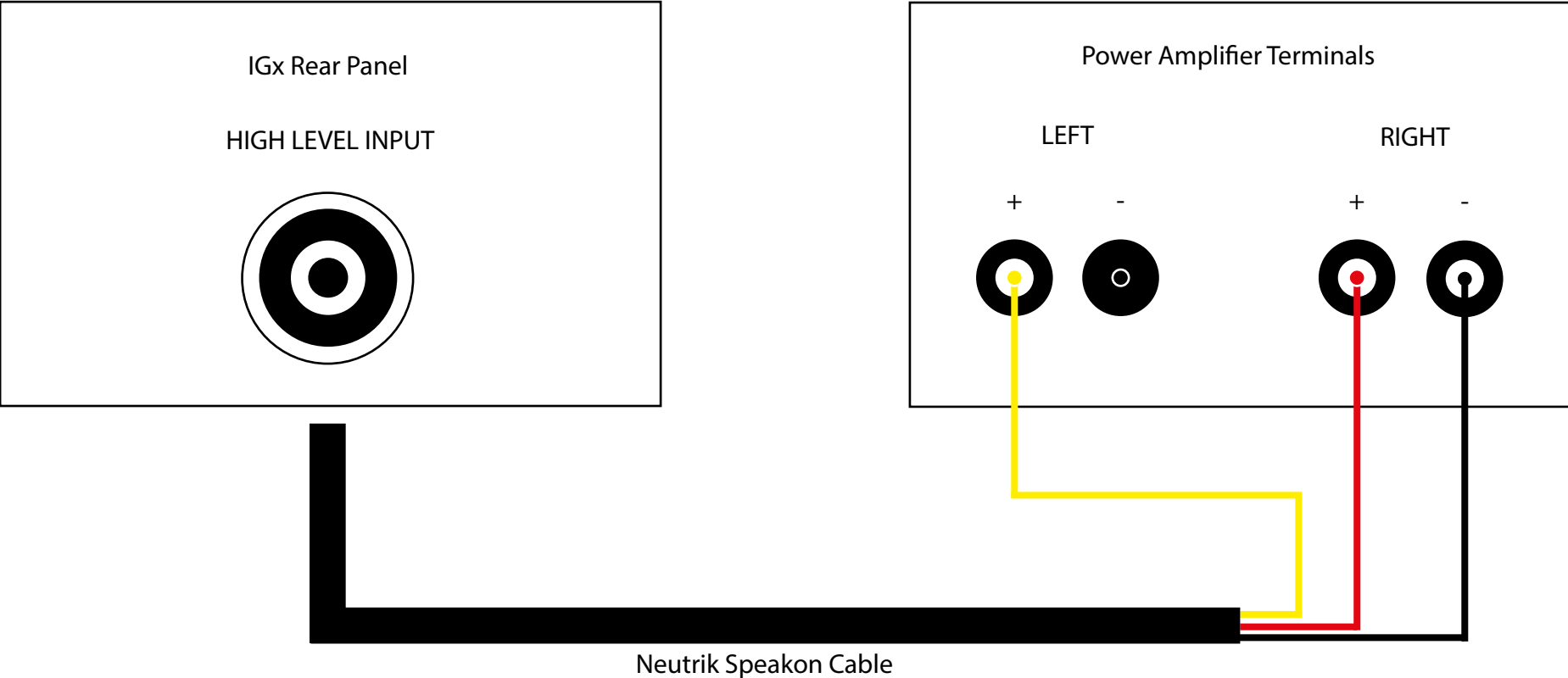
To connect the high level lead, you will need to connect the RED wire to the + positive terminal of the RIGHT hand speaker terminal of your power amp.

Connect the YELLOW wire to the + positive terminal of the LEFT hand channel speaker terminal of your power amp.

The BLACK wire is connected to either one of the BLACK - negative speaker terminals of your power amplifier.

Now plug the neutrik connector into the high level input of the IGx. The Neutrik plug will fit only one way as it has a key. Next push the plug in then turn clockwise until you feel it latch. To undo the Neutrik plug, pull back the silver lever on the Neutrik plug and turn counterclockwise.

5.0 High Level Connection using Neutrik Speakon Cable

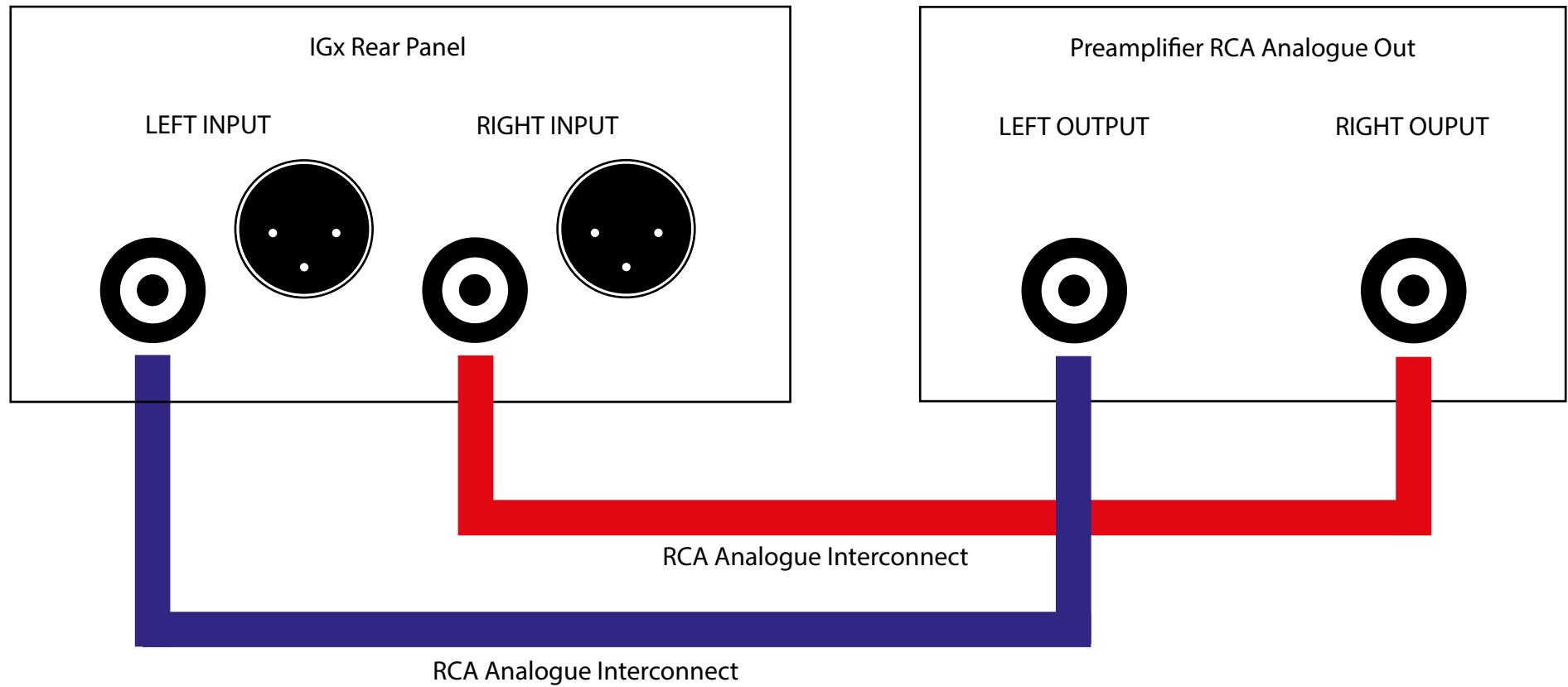


5.1 Low Level RCA IGx Connection

Method 2: LOW LEVEL IGx AMPLIFIER INPUT

The diagram opposite shows how to connect the low level input of the IGx. Using a pair of RCA to RCA interconnects (not supplied), connect your chosen low level source to the IGx low level inputs.

5.1 Low Level RCA IGx Connection

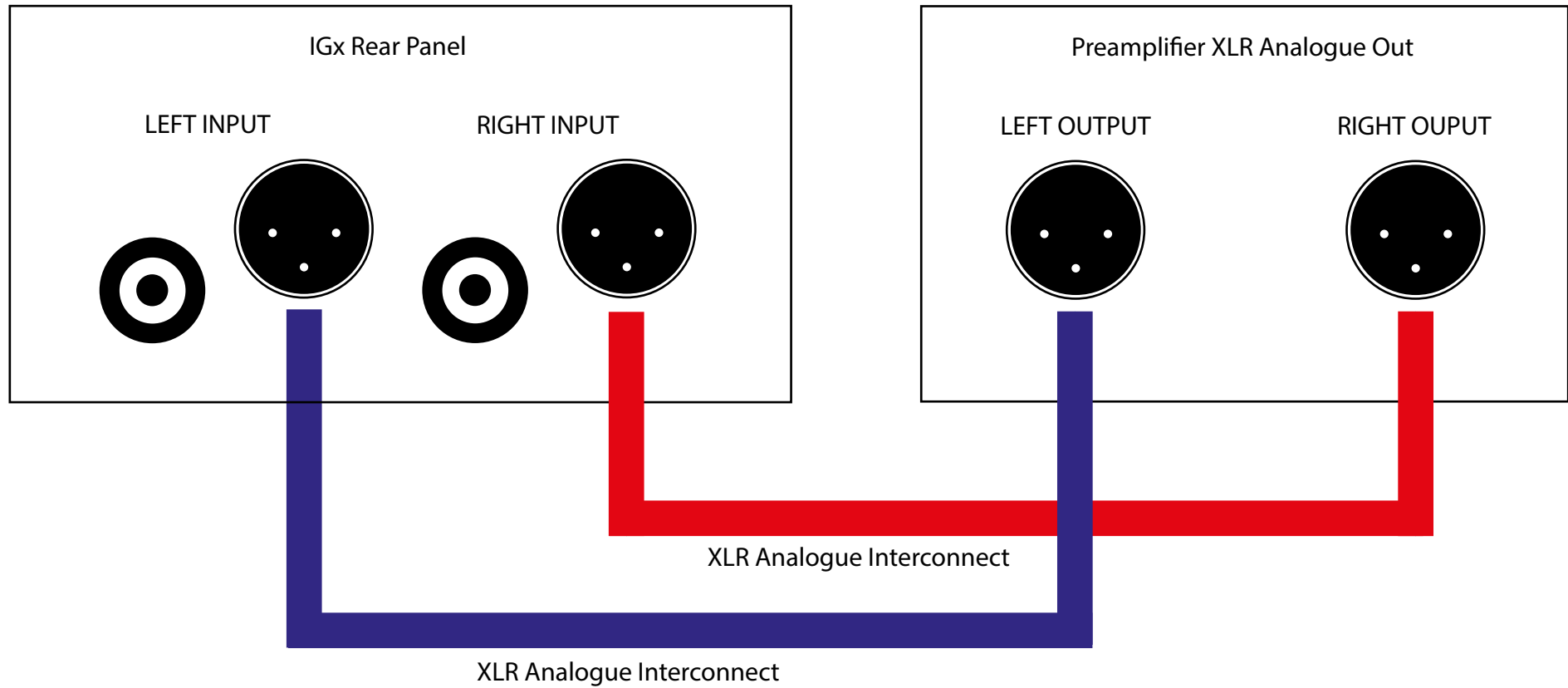


5.2 Low Level XLR IGx Connection

Method 3: LOW LEVEL IGx BALANCED XLR AMPLIFIER INPUT

The diagram opposite shows how to connect the Balanced, low level input of the IGx. Using an XLR to XLR interconnect (not supplied), connect your chosen low level source to the IGx low level inputs.

5.2 Low Level XLR IGx Connection



6.0 The IGx Front Panel Controls & Basic Setup Steps

Front Panel Controls

- 1) Continuously Variable Phase Control
- 2) Input Filter Control to adjust the IGx filter crossover point
- 3) Gain Adjust

Basic Setup Steps

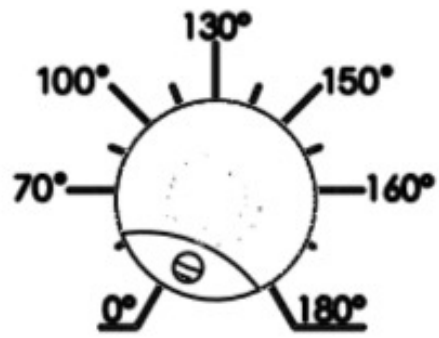
1. Turn the 'Gain' dial to the minimum -30dB position
2. Set the Filter control to 50Hz
3. Turn the phase control to 0-degrees or alternatively, set the phase switch on the rear panel to "direct" - this will entirely bypass phase control.
4. Connect your IGx as detailed for a high or low level method of connection.
5. With the IGx power toggle set to the 'off' position, plug your IGx into your mains socket using the supplied IEC power cable.
6. Now power on your system, and play a track that you are familiar with that has bass content.
7. Adjust the gain control until the level of the bass from your IGx matches the level from your main system speakers.
8. Now slowly adjust the frequency control counter clockwise until the output from the IGx meets the lowest notes from your main speakers (the crossover point), you may need to adjust the gain control again to match your main system speakers. **

The IGx has a fully adjustable phase control to help reach phase alignment between the IGx and main loudspeakers. This control can help in setups where the distance between IGx and the listening position is different to that of the speakers and the listening position. Listen to the quality of the bass first with the phase in the 0 deg position and then slowly adjust towards the 180 deg position. Choose the position that subjectively offers the tightest cleanest bass. If adjusting the phase control, ensure that the phase switch on the rear of the panel is not set to "direct" as this will bypass the phase control.

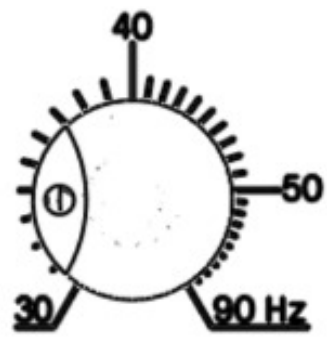
Following these setup instructions will get your IGx up and running, but with a little extra invested time and experimentation you will be able to fine tune the IGx setup for seamless integration with the rest of your system.

IGx Filter Setting

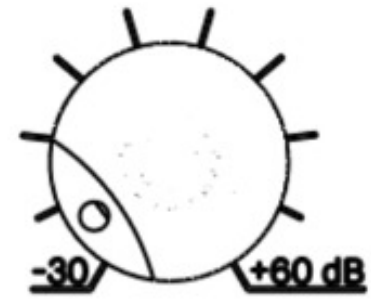
If using the IGx with Wilson Benesch floor standing loudspeakers, we would recommend setting the filter frequency at between 38-40Hz as a starting point. For Wilson Benesch stand mounted loudspeakers we would suggest 48-50Hz. **



PHASE



FILTER



GAIN

1

2

3

6.1 The Subject of Room Acoustics

Acoustics is a complex subject and this text should be treated for what it is – a simple but informative guide. For a deeper understanding we would recommend seeking out a range of texts on the subject which can be used in conjunction with basic measurement equipment such as a tape measure, laser measure and spirit level.

It is important to respect the role that the room and its contents will have on the overall sound of the audio system. The air contained within the room is the link between the output of the loudspeaker and your ear. How this air behaves is dependent upon the attributes or character of the room. It follows that a better understanding of basic acoustics will assist in making decisions about the way in which the room and subsequently the system can be initially installed and ultimately improved. We strongly recommend that customers have your Wilson Benesch dealer do the final voicing and positioning of your Wilson Benesch loudspeaker with you.

Room types fall between two extremes. A room can be 'dead' – being full of highly acoustic energy absorbent materials. Or a room may be 'lively' – with a high proportion of non-absorbent, hard, reflective surfaces. A combination of materials with different acoustic properties will in general allow the listener to achieve a balance between these extremes, which is of course preferable to either extreme at which point the performance and accuracy of the music's presentation will suffer.

The contents of a room will impact upon its overall acoustic character. As you would expect harder surfaces like glass, concrete or wooden floors tend to reflect and/or diffuse a broad band of acoustic energy. Complimentary materials that are soft and thick such as heavy natural fibre curtains, large rugs or soft acoustic panels will tend to absorb a broad band of frequencies.

6.2 Standing waves

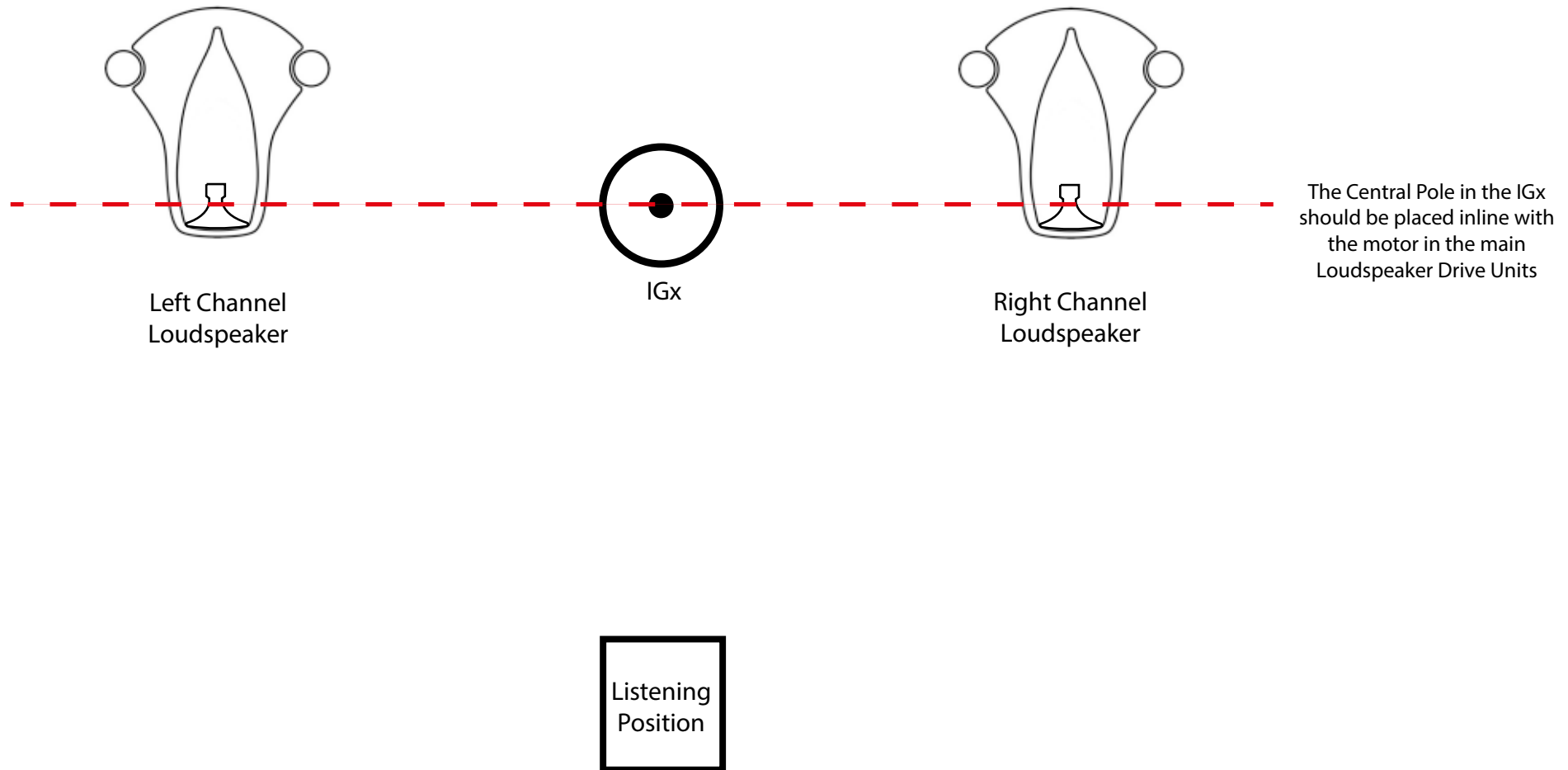
When sound waves reflect between two parallel surfaces, the distance apart being equal to half the wavelength or less, dependent upon wave size, resonance modes referred to as 'standing waves' are created. In loudspeakers with parallel walls these waves will cause distortions. The standing waves in your room will distort the frequency response of your system sympathetically boosting or cancelling certain frequencies. If a certain standing wave frequency is acoustically isolated from its modal neighbours its effect is more likely to be audible and problematic. This can compromise the accuracy of the presentation of any loudspeaker.

6.3 Positioning One IGx

A useful technique when looking for the optimum location is to place the IGx at the most common seating position. By working methodically through a range of frequencies, record the measurements around the perimeter of the room where the IGx might be located to ascertain the loudest signal. This process will assist in building up a picture of where the room is augmenting the output or not. One way of using this information would be to determine three possible options, the loudest, quietest and a middle position. This will provide a much clearer idea of adjusting the location of the generator over a period of time using listening tests as the guide.

Today, there are many sources available on the internet, where you can download frequency sweep tracks. There are Applications for mobile phones available for download to help with this process also. Please be careful when working with any of these measurement procedures. Always begin the test with the amplifier in the lowest level of output then increase slowly. Always progress through the tests with caution and double check volume levels as good practice. It is very easy to damage the system if care is not exercised at all times.

6.3 Positioning One IGx

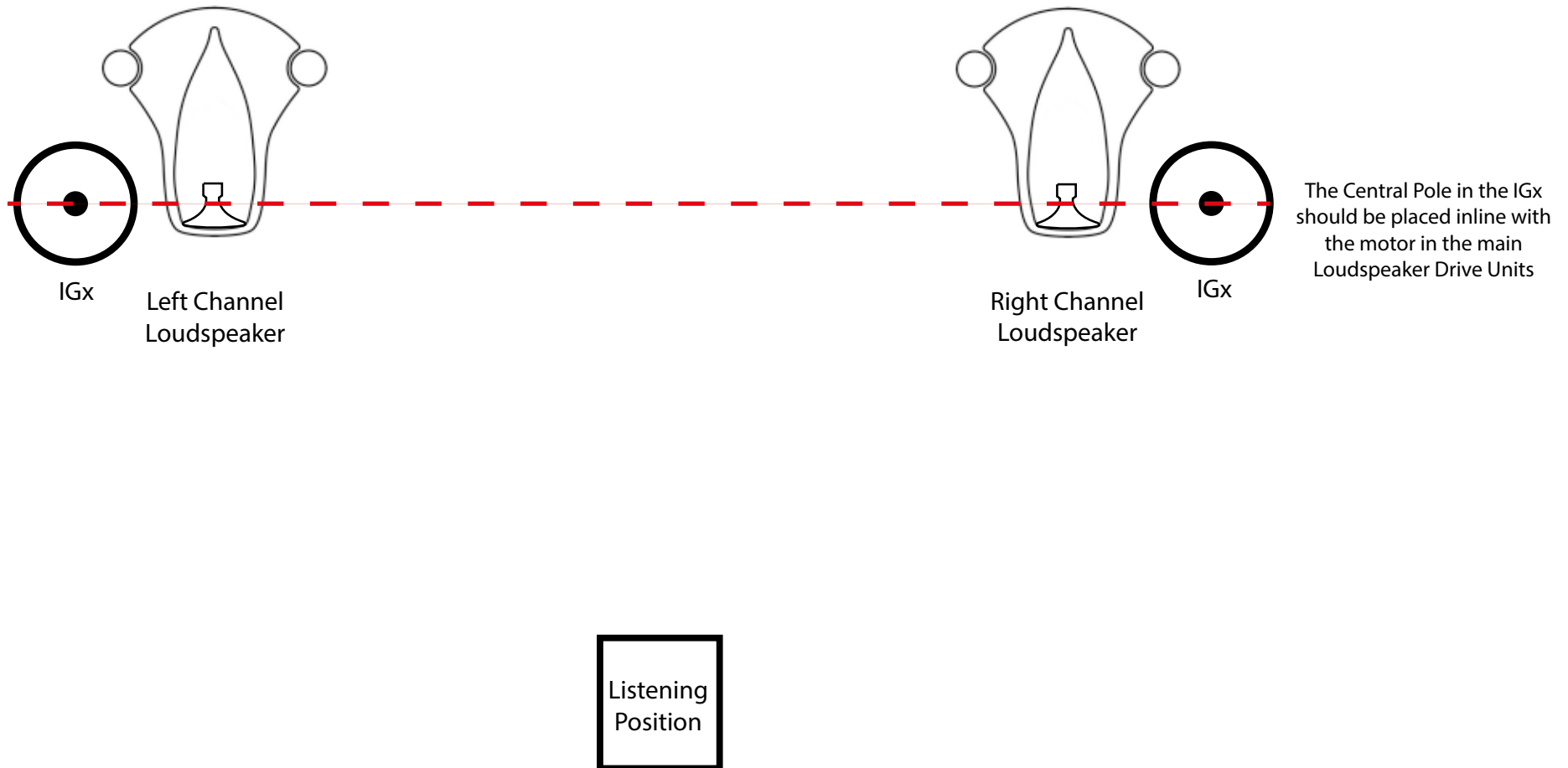


6.4 Positioning Two IGx Infrasonic Generators

Each IGx should be positioned next to your respective front left and front right channel speakers so that they are adjacent to the center line of the coils in your loudspeakers drive units. The diagram opposite shows the ideal positioning for two IGx systems in stereo configuration, however the effects of the room on the placement of the IGx's should be considered.

To avoid an imbalance between the left and right hand channels the crossover frequency and gain levels should be set at the same values on each IGx.

6.4 Positioning Two IGx Infrasonic Generators



7.0 Stable Listening Room Environment & Surface Finishes

The Wilson Benesch IGx is constructed from high quality materials and surface finishes that are durable. However these products are electronic devices, constructed from precision components, with specialist finishings applied. Therefore your Wilson Benesch IGx should be cared for and protected at all times from high humidity, air pollutants and water. The IGx should not be left in direct sunlight. Any item left in direct sunlight will gradually be faded by sunlight which will change the surface finish of the IGx. During periods when the IGx will not be used, it is recommended that the grille is placed on the top to protect the diaphragm, surround and rhodium finishing on the core. However, the grille should be removed when the IGx is being used.

In areas of the world where high humidity, and or, air pollution is prevalent such as in large city areas, Wilson Benesch highly recommend the use of air purifiers and air conditioning to maintain a steady state, stable environment for your loudspeakers and electronics.

IGx Rubber Surround: The rubber surround used by Wilson Benesch has an agent added during manufacturing that is designed to react with pollutants in the air to protect the rubber. A characteristic grey discolouring of the rubber surround is a sign that the rubber is reacting. This can be cleaned from the surface and the normal black appearance returned, by using a cloth with a small amount of deionised purified water to dampen the cloth. It is important not to spread water onto other surface finishes or leave any surface water, the cloth should be only slightly damp.

IGx Chrome Centre Motor: The motor should not be touched. The skin has oils in it that over time can corrode and degrade the surface finish. If the motor needs to be cleaned, no chemicals should be used. A microfibre cloth can be used to gently wipe the surface clean.

No other cleaning products or chemicals should be used on the surface finishes and in particular the drive units must not under any circumstances be cleaned with any chemicals.

8.0 Magnet Precautions

The motors used in all Wilson Benesch speakers are built from the most powerful magnetic material in the world, Nd.Fe.B. Do not bring any metallic objects or sensitive electronic, electromagnetic or mechanical systems into close proximity of these devices. This includes pace makers or other critical devices. The company cannot accept responsibility for any damage or injury caused to any such systems as a result of accidental exposure.

9.0 Limited Warranty

Subject to the provisions set out below, Wilson Benesch warrants its loudspeakers to be free of manufacturing defects in material and workmanship for the Warranty Period (the "Limited Warranty").

All shipments to our import partners shall be provided on ex-works terms.

Warranty Period

The Warranty Period is a period of ninety (90) days from the date of shipment recorded on the shipment confirmation form retained by Wilson Benesch when the loudspeaker leaves the factory in England. The Warranty Period is provided to the original purchaser only.

The Warranty Period shall be extended to a period of one (1) year from the date of shipment, for the IGx amplifier and control boards.
The Warranty Period shall be extended to a period of three (3) years from the date of shipment, for the IGx chassis and motor parts.

These warranties are provided for the for the original purchaser only, if:

1. no later than thirty (30) days after product delivery to the original purchaser, the purchaser completes the Warranty Registration by either:
 - a. completing the warranty registration online at <http://wilson-benesch.com>; or
 - b. scanning the QR Code appearing on the product, product packaging or in the product manuals and completing the details to register the product; or
2. and the product has been professionally installed on site by the Wilson Benesch dealer that sold the loudspeaker to the purchaser,

the above conditions being the "Warranty Conditions".

FAILURE TO COMPLY WITH EITHER OF THE WARRANTY CONDITIONS WILL RESULT IN THE WARRANTY PERIOD BEING LIMITED TO A PERIOD OF NINETY (90) DAYS ONLY.

9.1 Limitations of Warranty

Wilson Benesch will have no obligations in relation to the Limited Warranty if the product has been:

1. used or handled other than in accordance with the instructions in the product's owner's manual; or
2. abused or misused, damaged by accident, neglect or in transit, or if the product has been tampered with or service or repair of the product has been attempted or performed by anyone other than Wilson Benesch, an authorised Wilson Benesch dealer or technician or a technician of an authorised importer of Wilson Benesch products.

In the event that a product defect is deemed (by Wilson Benesch) to be due to a manufacturing defect or failure of the components, Wilson Benesch will effect the repair of the product without charge for parts or labour and will pay standard shipping costs to return the product to the purchaser. In all other circumstances, Wilson Benesch will provide the purchaser with a quote for the repair and the purchaser shall be solely responsible for any service or handling charge levied before receipt of the product by Wilson Benesch, together with the cost of the return of the product to the purchaser and the cost of any repair.

Wilson Benesch reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products and to change the prices or specifications of any product without notice or obligation to any person.

9.2 Repairs

In the event that a product is defective and the purchaser considers that the Limited Warranty applies, the purchaser should contact an authorised Wilson Benesch Dealer or authorised service and repair centre (together a "Dealer") (details of which can be obtained by contacting Wilson Benesch on +44 (0) 114 285 2656) within the Warranty Period for service or repair of the product. The Dealer will confirm whether or not it considers the Limited Warranty to be applicable (subject always to receipt of the loudspeaker to determine the reason for the defect). If the Limited Warranty is applicable, the service or repair shall, at the Dealer's option, take place either on site or at the Dealer's place of business. If the service or repair is at the Dealer's place of business, the purchaser shall be responsible for the cost of return to the Dealer and the dealer is responsible for the cost of return to the purchaser.

If the Limited Warranty is applicable but the product cannot be repaired by the Dealer, then the purchaser must first obtain a return authorisation from Wilson Benesch and at the purchaser's cost return the product to Wilson Benesch authorisation with a written description of the defect. The defect will be rectified by Wilson Benesch without charge for parts or labour and Wilson Benesch will return the repaired product to the purchaser at Wilson Benesch's cost.

9.3 Warranty Limited to Original Purchaser

Subject as otherwise provided below in relation to demonstration equipment, the Limited Warranty is for the sole benefit of the original purchaser of the product and shall not be transferable to any subsequent purchaser of the product.

9.4 Demonstration Equipment

Any IGx purchased by a Wilson Benesch authorised dealer, while used by such authorised dealer for demonstration purposes, is warranted to be free of manufacturing defects in materials and workmanship for a period of one (1) year for the amplifier and control boards and five (5) years for the chassis and motor parts from the date recorded on the shipping confirmation form retained by Wilson Benesch when the IGx leaves the factory in England.

Any such product which is covered by the Limited Warranty and requires repair may be repaired on-site or, if necessary (at Wilson Benesch's option), correctly packed and returned to Wilson Benesch by, and at the sole cost of, the dealer accompanied by a written description of the defect.

In the event that the product defect is deemed to be due to a manufacturing defect or failure of components, Wilson Benesch will effect the repair the product without charge for parts or labour and will pay standard shipping costs to return the product to the dealer. In all other circumstances, Wilson Benesch may provide the dealer with a quote for the repair and the dealer shall be solely responsible for the cost of the repair and the return of the product to the dealer.

9.5 On-Sale of Demonstration Equipment

The Limited Warranty shall apply in relation to a dealer-owned demonstration IGx sold to a retail customer on the same terms as set out above, except that the original purchaser shall be deemed to be the retail customer to whom the dealer sold the IGx and the Warranty Period shall be the remaining period left on the original Warranty granted to the dealer calculated from the date of the sale to such retail customer.

The dealer shall notify Wilson Benesch by sending an email to info@wilson-benesch.com prior to delivery of a dealer-owned demonstration IGx to a retail customer detailing the date of the sale, the model, model number, serial number of the dealer-owned demonstration IGx sold and the full customer name, address and contact information to allow the warranty to be registered. In the absence of any such notification by the dealer, the remaining term of the Warranty Period shall lapse, unless the retail customer notifies Wilson Benesch of the same by sending an email to info@wilson-benesch.com within 14 days from the date of sale.



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