



USERS GUIDE

PASSIVE BALANCED STEREO CONTROL UNIT

BPC 7.3

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UNPACKING

Please read the User Guide carefully before attempting to use this apparatus. The User Guide comprises general and specific information on adaptations/adjustments to give you the best possible performance of the apparatus.

Please store the packing materials for later use.

When the apparatus is unpacked, please check that it has not been exposed to any damage and that the package contains the following items:

1 pcs Dynamic Precision BPC 7.3. 1 pcs users guide for BPC 7.3.

Note: Please reports immediately any damage, defects or shortcomings to your dealer.



GENERAL INFORMATION

We congratulate you on your choice of the Dynamic Precision BPC 7.3.

The technical solutions are all based upon the best high quality switches, connectors and discrete components available, and the company's unique knowledge to achieve the best possible reproduction of musical signals.

The BPC 7.3 is fully balanced and DC-coupled from input to output. BPC 7.3 is designed to be able to drive relatively long cables, normally a problem what passive controllers concern. To achieve this we had to reduced the output impedance to a level lower than 2.4 k Ω .

BPC 7.3 has a minimum input impedance of 5.5 k Ω . Please observe that valve equipped D/A converters and/or MC-amplifiers equipped with coupling capacitors smaller than 0.1 μ F may suffer from a bass level reduction because of the low level input impedance of BPC 7.3. Consult the signal source users manual to find out if the signal source is able to work with loads as low as 5 k Ω . It is equally important to be aware of the fact that the input impedance of BPC 7.3 will rise to 10.5 k Ω . when the "LEVEL STEP -1dB" is in the position marked -10 dB. The latter will lower the load of the signal source output and may in turn cause an increase of the sub-bass level.

Dynamic Precision power amplifiers is designed to accommodate passive balanced configurations by keeping the input capacitance between 100 pF and 200 pF (please consult the Users Guide for that particular power amplifier). As a result of this, the cable length between BPC 7.3 and the power amplifier can be extended compared to other power amplifiers normally having a higher input capacitance (500 pF to 1000 pF). The inter conductor capacitance for balanced cables is normally 100 pF - 120 pF per meter, and this gives a combination of BPC 7.3 and a Dynamic Precision power amplifier the advantage to be interconnected with cables as long as 9 meters and still achieve the similar affect on the treble level as power amplifiers with an input capacitance of 1000 pF.

The resistive part of the input impedance, for power amplifiers is of minor importance.

From an audible point of view, it does not matter if the resistive input impedance for a power amplifier is $10 \text{ k}\Omega$ or $100 \text{ k}\Omega$, but what really matters when using passive controllers is to keep the capacitive load as low as possible. The latter is achieved using interconnect cables as short as possible (between the preamplifier and the power amplifier), and have the lowest possible input capacitance on the power amplifier.



SWITCHES AND INDICATORS

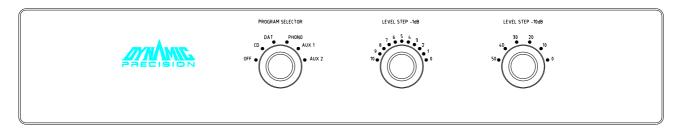


Figure A. BPC 7.3 front panel.

SWITCHES

PROGRAM SELECTOR:

OFF: All inputs disconnected, and the output terminated in 100 Ω .

CD: Signal from the CD-player.DAT: Signal from the DAT-player.

Phono: Signal from the turntable (NB! this input require a separate MC or MM amplifier).

AUX 1: Auxiliary input 1.

AUX 2: Auxiliary input 2.

LEVEL STEP -1dB

Fine volume control that attenuates the signal level for both channels from 0 to 10 dB in steps of 1 dB

Switches marked «LEVEL STEP -1dB» is primarily fine-tuning of the signal levels fed to the power amplifier.

LEVEL STEP -10dB:

Master volume control that attenuates the signal level for both channels from 0 to 50 dB in steps of 10 dB.

Maximum level attenuation is 60-dB pr. channel.

INDICATORS

BPC 7.3 is not equipped with any indicators.



CABLES AND CONNECTIONS

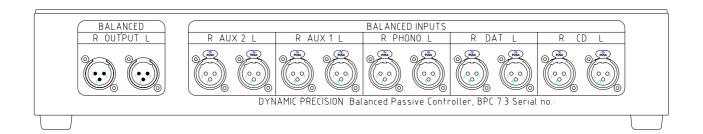


Figure B. BPC 7.3 back panel.

CONNECTIONS

BALANCED OUTPUT

R OUTPUT: Balanced output right channel, XLR male connector.

L OUTPUT: Balanced output left channel, XLR male connector.

BALANCED INPUTS:

CD L and R: Balanced input left and right channel for the CD-player, XLR female

connector.

DAT L and R: Balanced input left and right channel for the DAT-player, XLR female

connector.

Phono L and R: Balanced input left and right channel for the phono amplifier, XLR female

connector.

AUX1 L and R: Auxiliary input 1, right and left channel, XLR female connector.

AUX2 L and R: Auxiliary input 2, right and left channel, XLR female connector.



CABLES AND CONNECTIONS

<u>AUDIOCABLES</u>

Balanced cables

BPC 7.3 is fully balanced from input to output. Balanced signal sources shall always be connected using balanced cables as shown in figure 3. The benefit of a totally balanced system is that any noise superimposed on the signal paths will be cancelled on the input. On the other hand, when using an unbalanced system there is no control of the noise in the system. This may cause high level of out-band, high frequency signals to be applied on the input terminals. Such high frequency signals could causes the amplifier to be loaded by high output currents which may increase the inter-modulation and result in an audible reduction of the overall sound quality.

Ubalanced cables

BPC 7.3 can not be used with unbalanced power amplifiers. Unbalanced signal sources may be connected to BPC 7.3 using a "special cable" comprising two inner conductors and a shield. All conductors shall be terminated in both ends as shown in figure 4.

Authorised dealers of *Dynamic Precision's* products can help and advice you how to choose the proper cables to be used.



Figure 3. Balanced to balanced XLR-cable.



Figure 4. Unbalanced to balanced cable.



ADJUSTMENTS AND OPTIMALIZATIONS

ADJUSTMENTS

BPC 7.3 does not have any user operated adjustments.

OPTIMALIZATIONS

BPC 7.3 is equipped with an aluminium chassis to avoid electromagnetic influence from the internal signal flow, a solution which makes it sensitive to external electromagnetic fields eg. power amplifier transformers and the loudspeaker cables. Because of this we advice you to locate the BPC 7.3 at least 30 to 50 centimetres away from the power amplifier or other electromagnetic fields.



TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Noise when adjusting listening volume.	RF-noise.	Mains filter/ferrite core.
Noise when adjusting listening volume.	DC voltage present on signal source output.	Check if a DC voltage is present on the signal source output.
Noise when changing signal source.	RF-noise.	Mains filter/ferrite core.
Noise when changing signal source.	DC voltage present on signal source output.	Check if a DC voltage is present on the signal source output.
Hum.	Faulty signal cable, the shield is either broken or not connected.	Change the cable or connect the shield. Please observe figure 3 and 4 at page 6.



TECHNICAL SPECIFICATIONS

BPC 7.3

PROGRAM SELECTOR: 5 INPUTS, stereo balanced, CD-DAT-PHONO-AUX1-AUX2, and OFF-position.

LEVEL STEP-1dB: Fine adjustments for volume. Level change in steps of 1 dB.

LEVEL STEP-10dB: Master volume switch «LEVEL STEP -10dB» in steps of 10 dB.

LEVEL LINEARITY: < 0,1% for all level steps.

COMMON MODE REJECTION RATIO:

< 60 dB @ 20 Hz-20 kHz

INPUT IMPEDANCE: 5,5 k Ω with switch «LEVEL STEP -1 dB» in position 0 dB.

10,5 k Ω with switch «LEVEL STEP -1dB» in position -10 dB.

OUTPUT IMPEDANCE: Max. 2,4 k Ω with switch «LEVEL STEP -10dB» in position -10 dB. (Inputs short

circuited).

Dynamic Precision reserves the rights to change or alter the specifications and/or the technical solutions without prior notice.



WARRANTY

DURING THE WARRANTY PERIOD

The warranty and purchasers/vendors contractual obligations are in accordance with the *Sale of Goods Act*.

All warranties shall be void if any carelessness, misuse and/or unacceptable handling of the apparatus or any other conditions, which may be ascribed to the negligence of the purchaser of this product.

If a claim is raised concerning the operation of this product, please return it to the authorised dealer accompanied by a copy of the original purchase receipt and a brief description of the fault symptoms. The purchaser is requested to leave their telephone number and/or address in the event the manufacturer needs further information to resolve the problem to the purchaser's satisfaction.

Manufacturer

Dynamic Precision AS

Industriveien 3

N-2020 SKEDSMOKORSET

NORWAY

Telephone: +47 95870959
Facsimile: +47 63877911
E-mail: info@dynamicprecision.no

Web site: http://www.dynamicprecision.no/

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