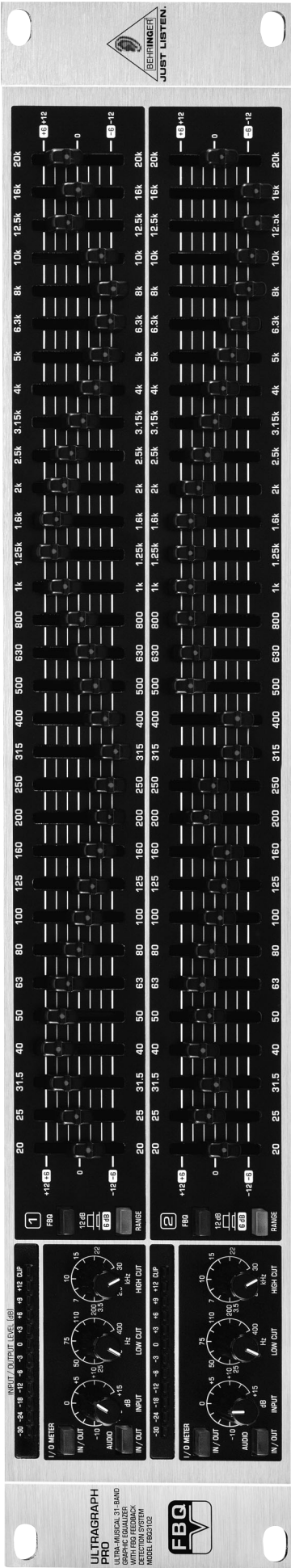


# ULTRAGRAPH PRO FBQ3102



## Technical Specifications

Version 1.1 October 2003

ENGLISH

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# ULTRAGRAPH PRO FBQ3102

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## ULTRAGRAPH PRO

### Ultra-Musical 31-Band Stereo Graphic Equalizer with FBQ Feedback Detection System

- ▲ Professional 31-band stereo Graphic Equalizer for both live and studio applications
- ▲ Revolutionary, patent-pending FBQ Feedback Detection System instantly reveals critical frequencies and can also be used as Audio Analyzer
- ▲ Dedicated mono subwoofer output with adjustable crossover frequency
- ▲ Additional sweepable high and low cut filters for each channel remove unwanted frequencies e.g. floor rumble, tape hiss etc.
- ▲ Highly accurate 12-digit LED input/output metering and input gain control for easy level setting
- ▲ Ultra low-noise audio operational amplifiers offer outstanding sound performance
- ▲ Relay-controlled hard-bypass with an auto-bypass function during power failure (failsafe relay)
- ▲ Servo-balanced inputs and outputs with 1/4" TRS and gold-plated XLR connectors
- ▲ High-quality illuminated faders, detent ALPS® potentiometers and illuminated switches for long-term reliability
- ▲ Shielded toroidal power transformer for ultra low-noise performance
- ▲ Extremely rugged all-metal chassis ensures long life even under the most demanding conditions
- ▲ Designed in Germany. Manufactured under ISO9000 certified management system

# ULTRAGRAPH PRO FBQ3102

## SPECIFICATIONS

|                               | ULTRAGRAPH PRO FBQ6200                                    | ULTRAGRAPH PRO FBQ3102  | ULTRAGRAPH PRO FBQ1502                                   |
|-------------------------------|---|---|--|
| <b>AUDIO INPUTS</b>           |   |   |  |
| INPUTS                        | RF-filtered, servo-balanced XLR and 1/4" TRS connectors   |   |  |
| Impedance                     | 40 k $\Omega$ balanced and unbalanced                     |   |  |
| Maximum input level           | +21 dBu balanced and unbalanced                           |   |  |
| CMRR                          | typ. 40 dB, >55 dB @ 1 kHz                                |   |  |
| <b>AUDIO OUTPUTS</b>          |   |   |  |
| OUTPUTS                       | servo-balanced XLR and 1/4" TRS connectors                |   |  |
| SUBWOOFER OUT                 | balanced XLR connector, level variable off to 0 dB        | balanced XLR connector  |  |
| Crossover frequency           | variable, 30 - 200 Hz                                     |   |  |
| <b>SYSTEM SPECIFICATIONS</b>  |   |   |  |
| Frequency response            | 10 Hz to 30 kHz, +/-3 dB                                  | 10 Hz to 200 kHz +/-3dB   |  |
| S/N ratio                     | 22 Hz to 22 kHz >94 dB @ +4 dBu                           |   |  |
| Distortion (THD)              | typ. 0.006% @ +4 dBu, 1 kHz, Gain 1                       |   |  |
| Crosstalk                     | typ. -65 dB @ 1kHz  |   |  |
| <b>ROLL-OFF FILTERSECTION</b> |   |   |  |
| Type                          | 12 dB/oct., Butterworth                                   |   |  |
| Input                         | variable (-15 dB to +15 dB)                               |   |  |
| Low Cut                       | variable (10 Hz to 400 Hz)                                | switchable, Cutoff @ 25 Hz  |  |
| High Cut                      | variable (2.5 kHz to 30 kHz)                              | -   |  |
| <b>GRAPHIC EQUALIZER</b>      |   |   |  |
| Type                          | analog 31-band equalizer                                  | analog 15-band equalizer  |  |
| Frequency range               | 20 Hz to 20 kHz in 31 1/3-octave bands (ISO frequencies)  | 20 Hz to 16 kHz in 15 bands (ISO frequencies)                               |  |
| Bandwidth                     | 1/3 octave  | 2/3 octave  |  |
| Control range                 | +/-6 dB or +/-12 dB (switchable)                          |   |  |
| <b>LIMITER SECTION</b>        |   |   |  |
| Attack/Release                | 20 msec / 90 msec   | -   |  |
| Threshold                     | variable, -6 dB to +22 dB (off)                           | -   |  |
| LED meter                     | Gain reduction 20/10/3/1 dB                               | -   |  |
| <b>NOISE GENERATOR</b>        |   |   |  |
| Type                          | Pink noise, level variable, off to 0 dBu,                 | -   |  |
| LED level meter               | -24/-12/-6/0 dB   | -   |  |
| <b>FUNCTION SWITCHES</b>      |   |   |  |
| FBQ                           | activates the FBQ Feedback Detection System               |   |  |
| Audio In/Out                  | switch to bypass the equalizer functions                  |   |  |
| I/O Meter In/Out              | switches the meter display from input to output           | -   |  |
| Range                         | shift of the maximum cut/boost range for all 31/15 bands  |   |  |
| Low Cut                       | -   | -   | activates the high pass filter                           |
| Limiter                       | activates the limiter                                     | -   | -  |
| Pink Noise                    | activates the noise generator                             | -   | -  |
| Subwoofer                     | activates the subwoofer output                            | -   | -  |
| <b>INDICATORS</b>             |   |   |  |
| Input/output level            | 8-segment LED display:<br>-24/-18/-12/-6/0/+6/+12 dB/CLIP | 12-segment LED display:<br>-30/-24/-18/-12/-6/<br>-3/0/+3/+6/+9/+12 dB/CLIP | 4-segment LED display:<br>-20/0/+6 dB/CLIP (output only) |
| Subwoofer                     | 4-segment LED display:<br>-18/-12/0/+12 dB                | -   | -  |

# ULTRAGRAPH PRO FBQ3102

|                                     | ULTRAGRAPH PRO FBQ6200                      | ULTRAGRAPH PRO FBQ3102    | ULTRAGRAPH PRO FBQ1502      |
|-------------------------------------|---|---------------------------|-----------------------------|
| <b>POWER SUPPLY</b>                 |   |                           |                             |
| Mains voltage                       | USA/Canada 120 V~, 60 Hz                    |                           |                             |
|                                     | Europe/U.K./Australia 230 V~, 50 Hz         |                           |                             |
|                                     | Japan 100 V~, 50 - 60 Hz                    |                           |                             |
|                                     | general export model 120/230 V~, 50 - 60 Hz |                           |                             |
| Power consumption                   | 35 W  | 35 W                      | 22 W                        |
| Fuse                                | 100 - 120 V~: <b>T 630 mA H</b>             |                           |                             |
|                                     | 200 - 240 V~: <b>T 315 mA H</b>             |                           |                             |
| Mains connection                    | standard IEC receptacle                     |                           |                             |
| <b>DIMENSIONS/<br/>WEIGHT</b>       |   |                           |                             |
| Dimensions (approx.)<br>(H x W x D) | 133.5 mm x 482.6 mm x 150 mm                | 89 mm x 482.6 mm x 150 mm | 44.5 mm x 482.6 mm x 215 mm |
|                                     | 5 ¼ " x 19" x 5 7/8"                        | 3 ½" x 19" x 5 7/8"       | 1 ¾" x 19" x 8 3/8"         |
| Weight                              | approx. 2.70 kg                             | approx. 2.5 kg            | approx. 2.15 kg             |
|                                     | approx. 5.95 lbs                            | approx. 5.51 lbs          | approx. 4.74 lbs            |

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