Domino Pro
Personal listening system

Bellman & Symfon®
DESIGN FOR EARS

Features

Digital signal processing
Sound with incredible detail

Encrypted broadband link
Secure from eavesdropping

Directional microphones
Useful in busy surroundings

Pocket size and light
Fits discretely in your pocket

Domino Pro is a personal listening system that helps you hear better in most everyday situations, whether you use hearing aids or just suffer the occasional hearing difficulty.

Digital signal processing. Domino Pro uses digital state-of-the-art signal processing technology. As a result, the system delivers music and speech with incredible detail, even in the toughest listening conditions.

Worry free communication. Domino Pro uses the 2.4 GHz global frequency standard for wireless broadband communication, just like your Wi-Fi computer at work. This means you can use your Domino Pro system anywhere in the world.
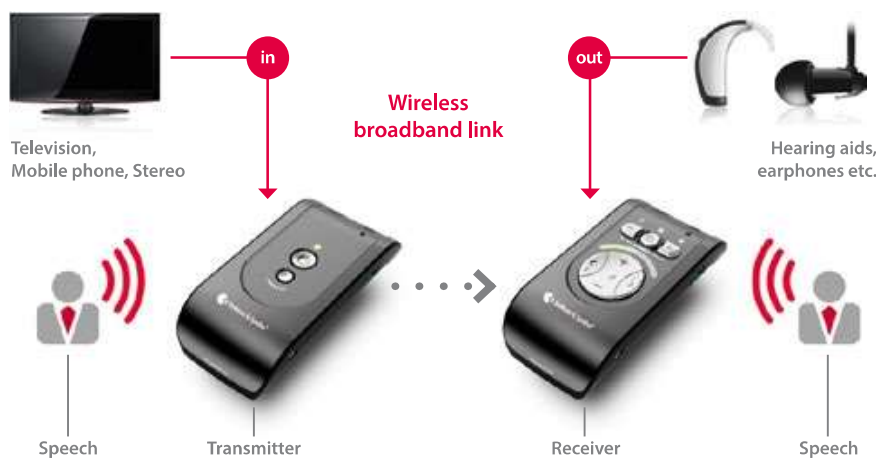The system uses secure 128-bit digital encryption technology; which makes it virtually impossible to eavesdrop.

Zoom the sound. Both units are equipped with omni- and directional microphones. With a directional microphone, you can 'point' to the person talking, reducing the background noise.

Pocket size and super light. The units are as small as a modern cell phone and weigh just 2½ oz each. So they can be kept discreetly in your pocket without weighing you down.

Easy to use. The system is virtually intuitive to use. All functions are accessed with the simple press of a button and there are no complicated menus to navigate.

Long lasting power. The units are powered with rechargeable lithium-ion batteries, just like a modern cell phone. So you never need to worry about buying new batteries.

Enjoy music and TV. Connect the Domino Pro transmitter to your TV or stereo system and enjoy wireless broadband Hi-fi sound at your own volume.

in

out

Wireless broadband link

Television, Mobile phone, Stereo

Hearing aids, earphones etc.

Speech   Transmitter   Receiver   Speech

Technical specifications

Size and weight

Height:	**3.9"**, **99** mm
Width:	**1.9"**, **48** mm
Depth:	**0.9"**, **22** mm
Weight:	**2.4** oz, **74** grams / unit

0.9", 22 mm   1.9", 48 mm   1.9", 48 mm

3.9", 99 mm

Input signals

- Microphones: Built in omnidirectional and directional microphones on both units
- External sound source input: 2.5 mm stereo jack plug (0 dBV max input signal)

Output signals

- Headphone socket: 3.5 mm stereo jack plug
- Distortion: 0.05% THD (electrical)
- Frequency range: 40-10 000 Hz
- Tone control: 9 steps
- Volume control: 9 steps, cut-off frequency 1.6 kHz
- Output power: 100 mW (16 Ω load)

Radio communication

- Frequency   2.4 GHz, uses 3 frequencies
- Range   25 m indoors, clear line of sight
100 m outdoors, clear line of sight
- Characteristics:
Encrypted communication
Automatic channel searching
Coexists with other radio transmitters operating on the 2.4 GHz frequency band

Environmental requirements

- Operating temperature: 32° to 95° F (0° to 35° C)
- Relative humidity: 5% to 95% (non condensing)

In the box

- BE2230 Transmitter
- BE2210 Receiver
- BE9142 Universal charger
- BE9241 EU-plug
- BE9135 Neck straps with safety clasp (2)
- BE9124 In-ear stereo earphones

- BE9141 Durable hard-top travel case
- BE9136 Tie-clip microphone
- BE9137 BE9137 Stereo cable, 1.5 m with adapter from 3.5 mm jack to RCA (phono)
- BE9139 Charger cable
- BE9159 / BE9161 Neck loop
- User manual and pocket reference guide

Power and battery

- Built in rechargeable lithium-ion battery on both units
- Operating time: 11-16 hours (With included light weight battery)
- Charging time: 4 hours (With included light weight battery)

Acoustic specifications

- Maximum output using BE9124 earphones 132 dB SPL
- Gain at full volume using BE9124 earphones (60 dB SPL input signal):
57,5 dB @ 1kHz   56 dB HFA
- Distortion
Using BE9124   0.08 % THD
Using BE9122   0.6 % THD

Regulatory requirements

- Complies with the following requirements: **CE, FCC, RoHS, WEEE, C-Tick and UL**

Receiver button and controls

Tone   Int. Mic.   LED indicator
Volume   On/Off   Microphones
Headphones output
Ext. sound selector
Volume/Tone indicator
Charger input

Transmitter button and controls

LED indicator
Pairing with receiver   Microphones
Line in
On/Off
Charger input

Accessories

The following accessories are available:

- BE2210 Additional receiver unit
- BE9122 Stereo headphones
- BE9124 Stereo in-ear earphones
- BE9125 Stetoclips
- BE9127 Tie-clip microphone
- BE9126 Cable kit, 5 m (stereo) incl. adapter from 3.5 mm stereo tele jack to RCA (phono)
- BE9159 Neck loop
- BE9143 USB car charger

BE8005_048DSH003_EN   **bellman.com**

In-depth technical information

Features

- Digital Signal Processing, DSP
- Omni directional and zoom electret microphones
- Dynamic range compressor
- Dynamic noise reduction
- Adaptive feedback manager
- Radio transmission using broadband technology
  - Uses the non-licensed 2.4GHz ISM band
  - One transmitter to one or multiple receivers
- Intuitive user interface
  - LED light bar for excellent readability
  - Clear indication of Volume, Tone, Mic & RF mode
  - Low battery warning indicator
- Auxiliary stereo signal input (2.5 mm tele jack)
- Headphones stereo output (3.5 mm tele jack)
- Mix mode mixes sound from transmitter and receiver
- Auto mute when switching between signal sources
- High gloss finish to minimize handling sound
- Requires no individual fitting
- Built-in rechargeable lithium-ion batteries
- BE9142 USB universal charger with 4 mains plugs for EU, GB, US & AU are included
- BE9141 Durable hard-top travel case included
- BE9124 Earphones included
- BE9136 Tie-clip microphone included
- BE9137 Stereo Cable Kit with RCA adapter included
- BE9135 Neck straps with safety clasp and polished stainless steel belt clips included
- **Supported configuration**
  1 Domino Pro transmitter and 1+ Domino Classic receiver(s) and 1+ Domino Pro receiver(s).
- **Non recommended configuration**
  1 Domino Classic transmitter and 1+ Domino Classic receiver(s) and 1+ Domino Pro receiver(s).

Technical specifications

- Dimensions: 99 mm (h) x 48 mm (b) x 22 mm (d)
- Weight: BE2210: 74 g, BE2230: 70 g
- Batteries: Built in rechargeable lithium-ion, 617 mAh
- Operating time: 11-16 hours (fully charged)
- Charging time: 4 hours (max)
- Ext. Mic./Aux. in connector: 2.5 mm stereo tele jack
- Headphones connector: 3.5 mm stereo tele jack
- Volume and Tone control: 9 steps
- Power switch: On/Off toggle button
- Mic and RF mode: Separate mode select buttons
- External microphone / Aux in selects automatically when plugged in
- Dynamic Range Compressor
  - Dynamic gain range   0-35 dB
  - Compression   3:1
  - Expansion   1:1.5
  - Attack time   20 (25) ms (≥3 kHz)
  - Release time   110 (200) ms (>3 kHz)
- 10 channel dynamic noise reduction
- Adaptive phase-invert feedback cancellation
- Digital signal processing
  - 22 050 kHz sampling frequency
  - 16 bit resolution in stereo
- Digital radio transmission
  - 2.4 GHz ISM band, 3 channels
  - Automatic channel allocation
  - 128 bit encryption
- Topology: Point-to-point or point-to-multipoint
- Diversity
  2 antennas receive, 1 antenna transmits Rx + Rx/Tx
- Radio range
  25 m indoors, clear line of sight
  100 m outdoors, clear line of sight
- Transmitter output power: max 25 mW

Acoustic specifications

- Maximum output saturation
  - Using BE9122 Headphones
    BE2210: 124.3 dB SPL / BE2230: 124.3 dB SPL (@ 2.5 kHz)
  - Using BE9124 Earphones
    BE2210: 132.0 dB SPL / BE2230: 130.5 dB SPL (@ 5 kHz)
  - Using BE9125 Stetoclips
    BE2210: 133.7 dB SPL / BE2230: 133.6 dB SPL (@ 1 kHz)
- Gain, full volume (1 kHz, 60 dB SPL input signal)
  - Using BE9122 Headphones
    BE2210: 42.5 dB / BE2230: 44.0 dB
  - Using BE9124 Earphones
    BE2210: 55.0 dB / BE2230: 57.5 dB
  - Using BE9125 Stetoclips
    BE2210: 58.2 dB / BE2230: 64.2 dB
- Gain, full volume (60 dB SPL input signal, HFA)
  - Using BE9122 Headphones
    BE2210: 46.5 dB / BE2230: 49.0 dB
  - Using BE9124 Earphones
    BE2210: 51.5 dB / BE2230: 56.0 dB
  - Using BE9125 Stetoclips
    BE2210: 52.0 dB / BE2230: 59.4 dB
- Distortion
  - Using BE9122 Headphones
    0.6 % THD
  - Using BE9124 Earphones
    0.08 % THD

Electrical specifications

- Output power tele-jack   100 mW at 16 Ω load
- Impedance, headphones 8 – 72 Ohm
- Distortion   0.05 % THD
- Dynamic range   95 dB
- Frequency range   40 – 10 000 Hz
- Tone control
  - Break point at 1.6 kHz
  - Tone, high: +10dB@3.15 kHz, –6dB@250Hz
  - Tone, mid: flat
  - Tone, low: –10dB@3.15 kHz
    No bass boost
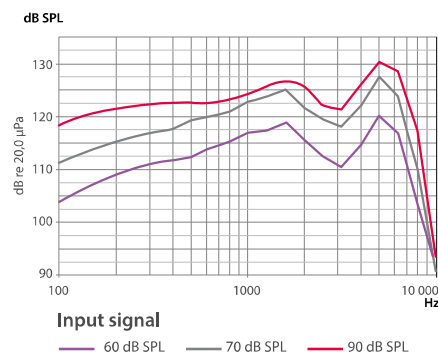- Line in sensitivity
  0 dBV (maximum input level)

Advanced settings menu

Balance control
Compensates for example for hearing loss in one ear. 5 dB / step.

Basic attenuation
Trim the attenuation to a specific hearing accessory. 3 dB / step.

Stereo/Mono
Only effects the line-in signal. Used for neck loop and stetoclips.

Bass reduction
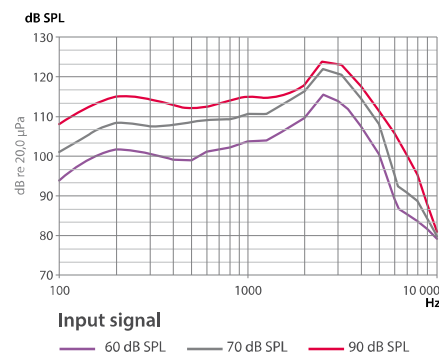Reduces low frequency interference from fans, road-noise etc.

Tone control blocking
Makes it easier for some end users to handle the Mino.

Tone control preset
Select preset tone. Used together with Tone control blocking.

Reset to factory settings
Resets all settings to the default factory settings.

Software version
Used primarily for service purposes.

Detailed information is available in the user manual appendix.

Output using BE9124 Earphones

Input signal
— 60 dB SPL   — 70 dB SPL   — 90 dB SPL

Output using BE9122 Headphones

Input signal
— 60 dB SPL   — 70 dB SPL   — 90 dB SPL

Output using BE9125 Stetoclips

Input signal
— 60 dB SPL   — 70 dB SPL   — 90 dB SPL