DL-S9PRO

DATASHEET



The DL-S9PRO is a self-powered two-way full-range loudspeaker of the D+ Harmony series, built around one 8-inch low-frequency transducer with a 38.1 mm (1.5 in) voice coil and one 25.4 mm (1 in) exit compression driver on a neodymium magnet assembly, housed in a bass-reflex enclosure. A Class-D amplifier stage, a four-preset digital signal processor, a four-channel input mixer with independent reverb and a rechargeable battery pack are integrated in the same body. It covers 55 Hz to 18 kHz over a nominal 90 by 60 degree pattern, with 120 W peak output from a 35 W mains draw.

What separates the DL-S9PRO from a conventional powered box is the list of items it removes from the vehicle: no external amplifier, no outboard effects unit, no system processor, no mixing console and, when the battery is charged, no dependence on a finished mains installation. One person carries a working public-address system in one trip.

The input section is where most of the engineering value sits. Channels 1 and 2 each present a single combination connector accepting a balanced three-pin plug and a 6.35 mm plug in the same receptacle, with a Mic/Guitar to Line sensitivity selector, so microphone, instrument and line sources interchange without adapters. Each of these channels carries its own bass and treble controls with a full 12 dB of cut and boost, its own reverb depth control and its own level control, with master level kept separate downstream. The reverb generators are not shared: most compact powered cabinets run one effects engine across the whole mixer, so adding reverb to a vocal also smears the backing track playing alongside it. Two independent effect paths let the operator do one without the other. Channels 3 and 4 carry the stereo auxiliary input and the Bluetooth receiver.

Processing needs no computer. Four voicings are recalled from a single EQ PRESETS button with an indicator confirming the active setting: Music, Flat, Kickback and Monitor. The Kickback voicing is the one that matters on a small stage, compensating the low-frequency boundary gain that occurs when the cabinet is tilted onto the floor. The mains supply is auto-ranging across 100 to 240 V at 50/60 Hz with no manual selector, so the unit behaves the same on a weak local grid and on a diesel generator. Cooling is by natural convection with no fan. The cabinet deploys upright on the floor, tilted in the kickback position, or on a standard pole.

Key Features

- Self-powered two-way system, 8 in low-frequency transducer and 1 in exit neodymium compression driver, bass-reflex enclosure
- 120 W peak Class-D output, 55 Hz to 18 kHz, 90 deg x 60 deg coverage - no external amplifier, processor or mixer required
- Two independent microphone/instrument channels on combination connectors (balanced three-pin + 6.35 mm), each with a Mic/Guitar to Line selector - no adapters when changing source
- Independent reverb, bass and treble (12 dB cut/boost) per channel, plus separate master level - vocal reverb without smearing a backing-track or instrument channel
- Four DSP voicings on a single EQ PRESETS button - Music, Flat, Kickback and Monitor, the Kickback voicing compensating floor-coupling gain in the tilted position
- Auto-ranging 100 to 240 V mains plus internal rechargeable battery with four-step level indication and charge status
- Floor, kickback and pole-mount deployment; fan-less convection cooling, no mechanical noise near microphones

Applications

- Commune cultural houses and multipurpose halls
- Schools, training rooms and assembly spaces
- Mobile events, roadshows and outdoor stages
- Stage monitoring and small-ensemble foldback

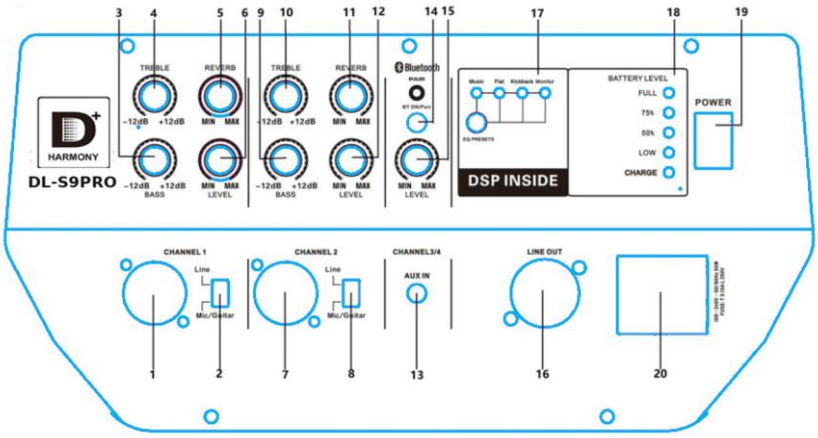
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Technical Data

Type	**Self-powered two-way full-range loudspeaker, bass-reflex enclosure**
Series	D+ Harmony
Low-frequency transducer	**8 in (203 mm), 38.1 mm (1.5 in) voice coil**
High-frequency transducer	**25.4 mm (1 in) exit compression driver, neodymium magnet assembly**
Frequency range	**55 Hz - 18 kHz**
Nominal coverage (H x V)	**90 deg x 60 deg**
Amplifier	**Class D digital amplifier, 120 W peak**
Signal processing	**Internal DSP, 4 voicings on one EQ PRESETS button with status indication Music / Flat / Kickback / Monitor**
Input channels 1 - 2	**Combination connector (balanced three-pin + 6.35 mm) per channel Mic/Guitar to Line sensitivity selector per channel**
Channel controls (1 - 2)	Bass -12 / +12 dB, Treble -12 / +12 dB, Reverb min - max, Level min - max All controls independent per channel
Input channels 3 / 4	1 x 3.5 mm stereo auxiliary input Bluetooth receiver, rear-panel on/off and pairing control with indicator
Master control	Master level, separate from channel levels
Output	1 x balanced three-pin line output (daisy-chain / subwoofer feed)
Mains supply	**100 - 240 V AC, 50/60 Hz, 35 W - auto-ranging, no manual voltage selector Mains current 0.16 A at 220 V - fused IEC inlet, T 3.15 A L 250 V, rocker switch**
Battery	Internal rechargeable pack, level indication Full / 75% / 50% / Low plus charge status
Cooling	Natural convection, fan-less
Deployment positions	**Floor upright / kickback (tilted) / pole mount**

Rear Panel - Control Layout



1, 7 - Channel 1 / 2 combination input (balanced three-pin + 6.35 mm) | 2, 8 - Mic/Guitar to Line selector | 3, 9 - Bass, -12 / +12 dB | 4, 10 - Treble, -12 / +12 dB | 5, 11 - Reverb | 6, 12 - Channel level | 13 - Auxiliary input, 3.5 mm stereo (channel 3/4) | 14 - Bluetooth on/off and pairing | 15 - Master level | 16 - Balanced line output | 17 - EQ presets: Music / Flat / Kickback / Monitor | 18 - Battery level and charge status | 19 - Mains switch | 20 - Fused IEC mains inlet

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Architect Specification

The loudspeaker shall be a self-powered two-way full-range system in a bass-reflex enclosure, with the amplifier stage, digital signal processing, a four-channel input mixer and a rechargeable battery pack contained within the same enclosure. No external amplifier, system processor, effects unit or mixing console shall be required for normal operation.

The low-frequency section shall comprise one 8-inch transducer with a voice coil of not less than 38.1 mm (1.5 in) diameter. The high-frequency section shall comprise one compression driver of not less than 25.4 mm (1 in) exit diameter using a neodymium magnet assembly. The operating range shall extend from not higher than 55 Hz to not lower than 18 kHz, nominal coverage shall be not less than 90 degrees horizontal by 60 degrees vertical, and peak amplifier output shall be not less than 120 W.

The unit shall provide two independent microphone/instrument channels, each terminating in a single combination receptacle accepting both a balanced three-pin plug and a 6.35 mm plug in the same connector body, with a sensitivity selector offering a Mic/Guitar position and a Line position. Arrangements requiring an adapter to change between microphone, instrument and line-level sources shall not be accepted.

Each of these two channels shall provide its own bass control with not less than 12 dB of cut and 12 dB of boost, its own treble control with not less than 12 dB of cut and 12 dB of boost, its own reverb depth control and its own level control, with master level adjustable independently. A single effects engine shared across both channels shall not be accepted, as it prevents reverb being applied to a vocal channel without affecting a backing-track or instrument channel operating in parallel.

The unit shall additionally provide a stereo auxiliary input on a 3.5 mm connector and an integrated Bluetooth receiver switchable on and off from a dedicated rear-panel control, with pairing status indication.

The unit shall incorporate an internal digital signal processor providing not fewer than four voicings, recalled from a single rear-panel control with indication of the active voicing and requiring no computer or external software. The voicing set shall include an uncoloured flat response, a music playback voicing, a performer monitoring voicing, and a dedicated kickback voicing correcting low-frequency boundary gain when the cabinet is tilted onto the floor.

The mains supply shall be auto-ranging over not less than 100 to 240 V AC at 50/60 Hz without a manual voltage selector, to permit stable operation on local distribution networks and on engine-driven generators, and shall be terminated in a fused IEC inlet with a rear-panel mains switch, with mains consumption not exceeding 35 W. The unit shall additionally provide an internal rechargeable battery with not fewer than four steps of capacity indication and a separate charge indicator.

Cooling shall be by natural convection. Forced-air fan cooling shall not be accepted, in order to eliminate mechanical noise in the area occupied by performers and within microphone pickup patterns.

The rear panel shall provide one balanced three-pin line output for connection to a second cabinet or a subwoofer without an external signal splitter. The enclosure shall support upright floor, tilted kickback and standard pole-mount deployment.

The loudspeaker shall be the D+ DL-S9PRO.

References

Full measurement data and loudspeaker presets are available on request – dailycompanyltd@gmail.com