



SP SERIES · MIDRANGE

SP-6.5TM

6.5" MIDRANGE SPEAKER · PROFESSIONAL USER MANUAL

Installation · wiring · specifications

80 W RMS · 160 W MAX

4 Ω NOMINAL

93 dB SPL 1W/1M

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The SP-6.5TM is a 6.5" (165 mm) midrange driver built for professional car-audio component systems that need clean, controlled midrange output in a compact, door-friendly chassis. This manual takes you from unboxing to a correctly mounted and wired pair.

- ✓ ITALIAN DESIGN
- ✓ QUALITY
- ✓ EASY INSTALL
- ✓ SUPPORT
- ✓ SECURE

WHAT'S IN THE BOX

- > 2× SP-6.5TM · 6.5" midrange speaker driver (sold and shipped as a matched pair)
- > 1× this professional user manual

NOTE — the factory datasheet supplied for this manual does not list mounting screws, grille or gasket as included accessories, so they are not listed above. Check your own retail packaging for any additional hardware.

Read the mounting chapter before cutting any panel. A dry-fit test of the cutout and the mounting depth is always required before permanent installation: damage caused by an incorrect cutout is not covered by warranty.



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THE BRAND

SP • SUPER POWER AUDIO • DESIGNED IN ITALY



Performance, design e passione italiana. Every SPAUDIO product is designed in Italy, tuned for real cars and real installers, and built to be recognised at a glance: black steel frame, orange trim, the tricolour stripe.

Performance, design e passione italiana

THE OFFICIAL SPAUDIO WORDMARK

SP

Super Power: the speaker-and-lightning mark stands for output without compromise — power you can feel.

AUDIO

Sound first: every SPAUDIO driver is voiced for real-world installations, with honest RMS ratings and no inflated 'max power' claims.

ITALIAN DESIGN

Designed in Italy. Distributed in Europe by Audiocar Import & Export, Milano — official SPAUDIO distributor.

THE PRODUCT & FEATURES



A dedicated 6.5" midrange for 2-way and 3-way component front stages. The orange stamped-steel basket keeps the motor rigid and cool, while the compact 1" KSV voice coil and the 80 × 40 × 15 mm Y30 ferrite magnet are sized to deliver 80 W RMS of continuous midrange output from a chassis that still fits most factory door and kick-panel locations.

NOTE — the factory datasheet does not declare the cone, surround or dust-cap materials, so this manual describes them only from the photos: a black woven cone with a black center cap and an orange steel mounting ring.

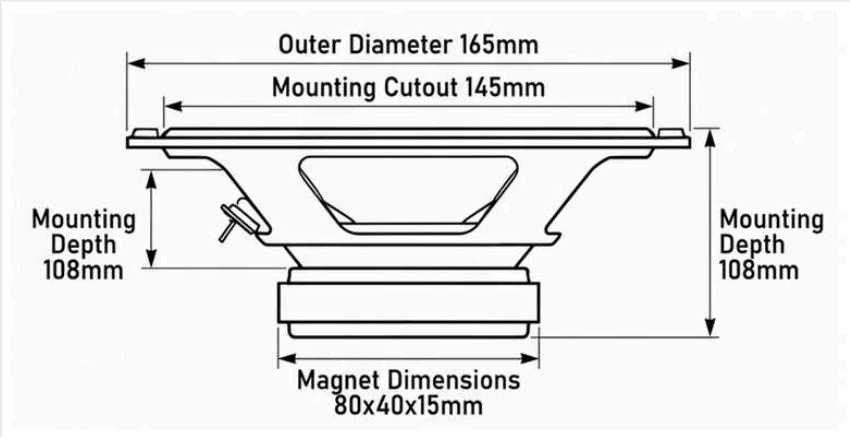
KEY FEATURES

- > 6.5" (165 mm) nominal frame, 145 mm mounting cutout
- > 1" KSV voice coil, 6 mm copper wire width for high current handling
- > Y30 ferrite magnet, 80 × 40 × 15 mm
- > 4 Ω nominal impedance — pairs cleanly with SPAUDIO 2-channel amplifiers
- > 93 dB SPL sensitivity (1 W / 1 m) for an efficient, low-strain amplifier match
- > 110 Hz–12 000 Hz declared frequency response
- > Sold and matched as a pair for symmetrical left/right response

TECHNICAL SPECIFICATIONS

Model	SP-6.5TM
Type	6.5" (165 mm) midrange speaker
RMS power	80 W
Max power	160 W
Nominal impedance	4 Ω
Sensitivity	93 dB SPL (1 W / 1 m)
Frequency response	110 Hz - 12 000 Hz
Voice coil diameter	1" KSV
Voice coil wire width	6 mm copper
Magnet	80 × 40 × 15 mm, Y30 ferrite
Outer diameter	165 mm
Mounting cutout diameter	145 mm
Mounting depth	108 mm
Sold as	Matched pair (2 units)
Design	Designed in Italy

DIMENSIONS & MOUNTING DRAWING



All dimensions from the factory mechanical drawing. Always dry-fit the driver in the cutout and confirm the 108 mm clearance behind the panel before cutting or drilling.

MOUNTING, WIRING & POLARITY



1

PLAN THE LOCATION

Choose a door, kick-panel or dash location with at least 165 mm of flat surface and 108 mm of clearance behind the panel for the magnet. Check for window regulators, speaker wiring and structural braces before marking the cutout.

2

DRY-FIT BEFORE CUTTING

Mark and cut a 145 mm cutout, then dry-fit the driver without fasteners. Confirm the basket sits flush and the magnet clears every obstruction through its full 108 mm depth before committing to a permanent cut.

3

WIRE THE PAIR

Connect each driver to its own amplifier channel, or to the midrange output of a passive crossover, respecting the 4 Ω nominal impedance and staying within 80 W RMS per channel for continuous use.

4

RESPECT POLARITY

Keep the same polarity (+ to +, - to -) on both drivers of the pair. The terminals supplied on this sample are not printed with polarity symbols: mark the wiring at the amplifier end and keep it consistent left and right.

5

SET THE CROSSOVER POINT

Use the 110 Hz-12 000 Hz declared response as the usable window: a typical 2-way or 3-way front stage will high-pass the SP-6.5TM around 100-150 Hz and hand off to the tweeter within that same band, tuned to taste with your processor or passive network.

6

SECURE & FINISH

Fasten the driver with the hardware supplied with your own kit, fit a grille if used, and re-check both channels for phase and polarity before closing the door panel.

WARNING — never drive the pair above 160 W MAX, even briefly: sustained clipping or over-powering will damage the voice coil and is not covered by warranty.

CARE, WARRANTY & CONTACTS

CARE & MAINTENANCE

- > Keep the cone and dust cap dry; this is a component driver, not a marine or outdoor-rated speaker unless your installer has separately sealed the panel.
- > Clean the frame and grille with a dry or barely damp cloth — never spray cleaner directly onto the cone.
- > Re-torque the mounting screws after the first weeks of use, once the door panel trim has settled.
- > Keep continuous power within 80 W RMS per driver; brief peaks up to 160 W MAX are tolerated but should not be sustained.

WARRANTY

SPAUDIO products are covered by the manufacturer's limited warranty against defects in materials and workmanship from the date of purchase. Damage from incorrect cutout dimensions, incorrect wiring polarity, moisture or overpowering beyond the rated MAX power is not covered. Current warranty terms are available from your dealer or at www.spaudio.it.

CONTACTS

Free technical support from a real person:
spaudio@spaudio.it · +39 340 807 8778 · www.spaudio.it

PRODUCT	LANGUAGE	VERSION
SP-6.5TM	English	Rev. 1.0 · Sept 2026

