COMPRESSION DRIVER · HORN-LOADED ·
CLASS TITANIUM



SP-DRIVER 47

PROFESSIONAL USER MANUAL

DRIVER SERIES · Installation · wiring · specifications

200 W RMS · 4 Ω	**400 W PEAK MAX**	**114 dB SENSITIVITY**	**800 Hz – 20 kHz**

EN · REV. 1.0 · SEPTEMBER 2026

WELCOME

THANK YOU FOR CHOOSING SPAUDIO

The SP-DRIVER 47 is a compact horn-loaded compression driver with a titanium diaphragm and a ferrite motor, built for installers who need high sensitivity and a clean top end without giving up install space. This manual covers unboxing, mounting, wiring and the specifications you need to integrate it correctly into a car-audio system.

> Read the Safety chapter before wiring the driver. A compression driver is a high-SPL, low-mass transducer: it is protected by correct filtering, not by brute force. Damage caused by feeding it full-range or clipped signal is not covered by warranty.

✓ **ITALIAN DESIGN** ✓ **TITANIUM DIAPHRAGM**
✓ **HORN-LOADED** ✓ **EASY INSTALL** ✓ **SUPPORT**

DOCUMENT

Product	SP-DRIVER 47 (SPTW.DRIVER-47)
Language	English
Version	Rev. 1.0 · September 2026
Code	46

Ratings at 1 W / 1 m, free field. Latest version at www.spaudio.it.

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SYMBOLS USED IN THIS MANUAL

WARNING	risk of injury, hearing damage or permanent damage to the driver.
NOTE	useful information for a better installation result.
ALLOWED	configuration within the driver's ratings.
NOT ALLOWED	configuration that will damage the diaphragm or void the warranty.
INSTALLER	step recommended for a professional installer.

NEED HELP?

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

PART 1

SAFETY FIRST — READ BEFORE INSTALLING

A compression driver reproduces the most audible part of the spectrum at very high sensitivity. Every rule on this page protects your hearing, your vehicle and the driver itself: none of them is optional.

1. **Disconnect power before wiring.**
   Switch off and disconnect the amplifier before connecting or disconnecting the driver. Live wiring can short the amplifier output and damage the voice coil.

2. **Always use a high-pass filter or crossover capacitor.**
   Never feed the SP-DRIVER 47 a full-range or low-frequency signal. Use the supplied passive capacitors, or the high-pass section of your amplifier / DSP, set above the driver's usable range. Bass content into a compression driver is the single most common cause of diaphragm failure.

3. **Respect the rated power and impedance.**
   200 W RMS continuous, 400 W peak, 4 Ω minimum per driver. Exceeding these ratings, or driving the amplifier into clipping, will overheat and permanently damage the titanium diaphragm.

4. **Match polarity across the system.**
   Connect + to + and – to – on every driver and speaker in the installation. Reversed polarity causes cancellation, weak imaging and poor integration with the rest of the system.

5. **Mount with the horn mouth unobstructed.**
   Do not block, foam-line or paint over the horn throat. Keep the driver away from direct moisture, engine heat and vibration-prone panels.

6. **Professional installation recommended.**
   Correct crossover point, gain staging and mounting make the difference between a driver that lasts and one that doesn't. If in doubt, have the system tuned by a qualified installer.

PART 2

WHAT'S IN THE BOX

- 1 × SP-DRIVER 47 compression driver
- 2 × passive crossover capacitors, 8 µF / 250 V (high-pass protection)
- Mounting screws, pre-fitted to the flange
- Retail packaging with original specification card
- This user manual

Sold as a single unit — order two for a stereo pair.



PRODUCT TOUR



1 Horn / waveguide
Orange-finished compression horn that loads and directs the high-frequency output.

2 Titanium diaphragm & mesh
Protective mesh grille over the titanium diaphragm and aluminium phase plug.

3 Aluminium throat ring
Precision-machined ring at the horn throat, 30 mm (1.2") compression exit.

4 Mounting flange
Octagonal flange with 4 mounting holes on an 85 mm bolt pattern.

5 Ferrite motor body
13 oz ferrite magnet assembly with CCAW voice coil, 34.4 mm (1.35").

6 + / – terminals
Screw terminals for amplifier connection; observe polarity.

PART 3

DIMENSIONS & MOUNTING

Confirm clearance behind the mounting panel before drilling: the driver's total depth, including the magnet body, must be free of trim, wiring and structural panels.



All dimensions in millimetres (mm). Overall diameter 100 mm · body height 80 mm · mounting-hole span 65 mm · base width 85 mm.

KEY DIMENSIONS

Overall width / diameter	**100 mm / 3.9 in**
Body height	**80 mm / 3.15 in**
Mounting hole span (right side)	**65 mm / 2.56 in**
Base width	**85 mm / 3.35 in**
Total depth	**94 mm / 3.6 in**
Throat diameter	**30 mm / 1.2 in**

Use the 4 flange holes for mounting; do not over-tighten into thin sheet metal — use rubber washers or a backing plate to isolate the driver from panel resonance.

PART 4

TECHNICAL SPECIFICATIONS

Model	**SPTW-DRIVER 47**
Type	**Compression driver, titanium diaphragm, horn-loaded, ferrite magnet**
Power handling, RMS	**200 W**
Power handling, peak / max	**400 W**
Minimum impedance	**4 Ω**
Sensitivity	**114 dB (1 W / 1 m)**
Frequency range	**800 Hz – 20 kHz**
Throat diameter	**30 mm / 1.2 in**
Voice coil diameter	**34.4 mm / 1.35 in**
Voice coil winding	**CCAW (Copper-Clad Aluminium Wire)**
Magnet	**Ferrite, 13 oz**
Overall diameter	**100 mm / 3.9 in**
Depth	**94 mm / 3.6 in**
Net weight	**1.15 kg**
Shipping weight (1 pc)	**1.3 kg**
Shipping box (1 pc)	**11 × 11 × 10.5 cm**
Sold as	**Unit**

FREQUENCY RESPONSE



IMPEDANCE



Measured on Klippel-referenced test bench, 1 W / 1 m, anechoic-equivalent conditions.

PART 4

WIRING & CROSSOVER

Connect the amplifier's positive output to the driver's + terminal and the negative output to the – terminal. When using the supplied passive capacitors, wire one capacitor in series on the + lead between the amplifier and each driver — this forms a simple first-order high-pass filter that keeps damaging low-frequency energy away from the diaphragm.

Recommended crossover point	2.5 kHz or higher (first-order minimum), matched to your horn / enclosure design
Included capacitors	2 × 8 µF / 250 V, non-polarised, wired in series on the + lead
Amplifier configuration	High-pass filter engaged, gain calibrated below clipping at full volume
Polarity	+ to +, – to – on every driver in the system

> Never bypass the crossover capacitor or high-pass filter to "test" the driver full-range — even briefly, this can rupture the diaphragm.

CARE & MAINTENANCE

- Wipe the horn and flange with a soft, dry cloth; avoid solvents and abrasive cleaners.
- Do not disassemble the diaphragm or phase plug — there are no user-serviceable parts inside.
- Keep the driver dry; if installed in a door or exposed location, use a moisture-resistant enclosure.
- Check terminal connections periodically for tightness and corrosion.
- The leading cause of premature failure is amplifier clipping — keep gain below the distortion threshold.

WARRANTY & CONTACTS

SP-DRIVER 47 is covered by a 2-year manufacturer warranty against manufacturing defects, valid with proof of purchase. Damage from overpowering, clipping, moisture, incorrect polarity or improper installation is not covered.

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