

analogue turntables



# Sophisticated ...

... Craftsmanship with attention to detail that makes a Dual turntable so special.

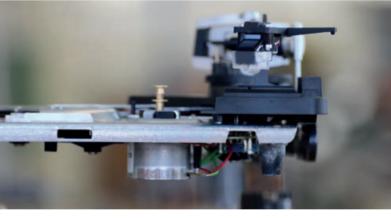
# Dual

# Production







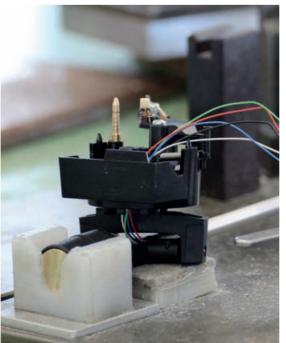














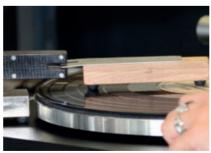


# ■ made ■ in ■ Germany

## **Production**

The company history of Dual begins with the production of spring drives in 1900. 27 years later, an electric motor with reared spring drive, the combination motor was introduced - the so-called "DUAL-Motor", and so the DUAL brand was born. In 1937, at the World Exhibition in Paris, the DUAL turntable gets the first award. In 1949 the DUAL-record changer, model "1000" was introduced. DUAL produces an annual 200,000 drives by now. In 1952 there were the first own crystal cartridge box-turntables and box-amplifiers followed in 1955/56. New developments such as tape recorders, tuners, amplifiers, speakers, and compact systems were equally successful. 1971 DUAL took over the competing company PE.While DUAL in the 70s still imports its biggest gains, in 1982 came the surprising bankruptcy with the acquisition of THOMSON. In 1988 DUAL was then sold to the Schneider-Rundfunk Werke AG, which then added televisions to the range, too. In 1993, Alfred Fehrenbacher GmbH took over the production of the complete turntable program by DUAL.











## Fully-Automatic

Midi-format turntable with built-in phono preamp. (Can be switched off)

The cheapest model of fully automatic turntables in the DUAL family. Easy plugand-play device for casual listeners who are looking for a quick and cheap solution to listen to their vinyls again.

#### Tone arm technology:

Weight balanced tone arm with pre-set tracking force. Magnet cartridge with diamond needle DMS-402S.

#### Chassis technology:

Equipped with special floating feet, aluminium platter with anti-resonance rubber platter surface.

### Drive technology:

Belt drive with polished flat belt. DC motor with electronic speed control. Viscosity- damped arm lift, automatic tone arm cue and return cue diameter 17/30 cm selectable.



□ made **■** in **□** Germany



## Fully-Automatic

Simple choice of material, but a high standard of quality ensure in this fully automatic turntable; Analog music enjoyment.

#### Tone arm technology:

Weight balanced tone arm. Pre-set trakking force and anti-skating. Headshells with 13mm (1/2-inch) - fixing-holes. Torsion headshell.

### Chassis technology:

Vibration damping wooden chassis. Floating sub chassis. Aluminium platter with antistatic felt mat.

#### Drive technology:

Belt drive with polished flat belt. Electronically controlled DC motor. Viscosity-damped arm lift. Automatic tone arm cue. Auto Stop with tone arm return. Supplied with magnetic DMS 251 S cartridge.





■ made ■ in ■ Germany

# CS 415-2 / CS 415-2 EV\*



Colour: Black

## Fully-Automatic

Turntable with mature technology and first-class workmanship.

The perfect start into the DUAL tradition, 100% MADE IN GERMANY.

Tone arm technology:

Weight balanced tone arm. Pre-set trakking force and anti-skating.

Headshell with 13mm (1/2-inch) - fixing-holes. Torsion headshell.

Chassis technology:

Vibration damping wooden chassis. Floating sub chassis. Aluminium platter with antistatic felt mat.

Drive technology:

Belt drive with polished flat belt. Electronically controlled DC motor. Viscosity-damped arm lift.

Automatic tone arm cue. Auto Stop with tone arm return. Supplied with magnetic DMS 251 S cartridge.

\* Also available with built-in phono preamplifier.



Colour: Silver

# ■ made ■ in ■ Germany







Colour: Black

## Fully-Automatic

Uncomplicated fully automatic midi format turntable with two speeds, for all who have little less space.

Tone arm technology:

Weight balanced tone arm. Counterweight and anti-skating adjustable. Headshell with 13mm (1/2-inch) - fixing holes. Torsion headshell.

Chassis technology:

Solid wooden chassis. Floating sub chassis. Aluminium platter with antistatic felt mat.

Drive technology:

Belt drive with polished flat belt. DC motor with electronic speed control. Viscosity-damped arm lift.

Automatic tone arm cue. Auto Stop with tone arm return. Supplied with magnetic DMS 251 S Cartridge.

# CS 435-I / CS 435-I EV\*



Colour: Black

## Fully-Automatic

This turntable creates the ultimate combination of precision technology and absolute convenience at an attractive price.

Tone arm technology:

Weight balanced tone arm. Counterweight and anti-skating adjustable. Headshell with 13mm (1/2-inch) - fixing-holes. Torsion headshell.

Chassis technology:

Solid wooden chassis. Floating sub chassis. Aluminium platter with antistatic felt mat.

Drive technology:

Belt drive with polished flat belt. DC motor with electronic speed control. Viscosity damped arm lift. Automatic tone arm cue.

Auto Stop with tone arm return. Supplied with magnetic DMS 251 S cartridge.

<sup>\*</sup> Also available with built-in phono preamplifier





## CS 455-1



Colour: Black / Silver Finish

## Fully-Automatic

High quality, fully automatic turntable with three speeds (33, 45, 78 rpm). This turntable meets all the criteria. Sophisticated technology, greatest convenience combined with great sound leaves the listener with no unfulfilled wishes.

Tone arm technology:

Cardan bearing with zero-mass tracking force setting, thanks to precision torsion spring. Detachable headshell with 13mm (1/2-inch) fixing-holes. Adjustable tracking force and anti-skating. Extremely rigid headshell made of carbon fiber.

Chassis technology:

Solid wooden chassis. Floating sub chassis. Vibration damping aluminium platter with antistatic felt mat.

Drive technology:

Belt drive with polished flat belt. DC motor with electronic speed control. Viscosity-damped arm lift. Automatic tone arm cue. Auto Stop with tone arm return. Playback option for archive disks with 78 rpm speed. Delivered with OMB 10 cartridge.



# Dual CS 455-1



Colour: Black / Silver Finish

# CS 455-1 EV



# Fully-Automatic Also available with built-in phono preamplifier



Colour: Black / Silver Gold



Colour: Black / Silver Finish



Colour: Silver



## Fully-Automatic

Luxuriously furnished, fully automatic turntable of high standard with three speeds (33, 45, 78 rpm). A solid heavy wooden console and a heavy platter in sandwich construction delivers outstanding absorbance of vibration and speed accuracy

Tone arm technology:

Cardan tone arm with mass tracking force set by a high-precision torsion spring. Detachable, Torsional rigid carbon fiber headshell with 13mm (1/2-inch) fixing-holes. Adjustable tracking force and anti-skating.

Chassis technology:

Solid wooden chassis, floating sub chassis, heavy sandwich platter with additional

damping mass ring for the highest fidelity sound.

Drive technology:

Belt drive with polished flat belt. DC motor with electric speed control. Viscosity-damped arm lift. Automatic tone arm top-mounted device. Auto Stop with tone arm return. Playback option for archive records at 78 rpm. Supplied with magnetic OMB 10 cartridge



# CS 505-4



## Semi-Automatic

The CS 505-4 is the eternal classic in the DUAL sortiment and is now in its fourth generation. A semi-automatic turntable with floating sub-chassis, which combines time and effortless good sound with excellent ease of use and so ensures relaxing and long lasting music enjoyment.

Tone arm technology:

Cardan bearing with massless Stylus force set by high-precision torsion spring. Detachable headshell with 13mm (1/2-inch) fixing-holes. Adjustable tracking force and anti-skating. Extremely rigid headshell made of carbon fiber.

Chassis technology:

Anti-Distortion wooden chassis. Board with floating suspension. Vibration dam-

ped aluminium platter with anti-static, thick felt mat.

Drive technology:

Belt drive with polished flat belt, 16 pole synchronous motor with speed precision control. Viscosity damped arm lift. Auto Stop with tone arm lift. Supplied with magnetic OMB 10 cartridge.





Colour: Black



## Manual

Modern design paired with perfected technology. That's the new CS 550 of the brand Dual.

#### Tonearm technology

The height-adjustable arm has a quadruple Cardan ball bearing and a particulary torsioinally rigid headshell made of carbon fibre with 13 mm (½ inch) fixing holes. Counterweight and antiskating are adjustable.

Chassis technology

Vibration damping solid wood chassis. Heavy aluminium sandwich platter is weighted with copper rings and a cast damping mass is also located within the interior. The brass bearing is build for longlife and has a bearing mirror made of teflon.

#### Drive technology

The platter is driven by a precision flat belt and a DC motor with electronic speed control. Cartridge is not included.



Farbe: Antrazit Metallic





## Manual

The latest top model from the house of Dual resides within an elegantly worked, massive wood console.

#### Tonearm technology

This record player is equipped with a newly developed tone arm, unique to this player. The height-adjustable arm has a quadruple Cardan ball bearing joint and a particularly torsionally rigid tone arm head made of carbon fibre.

#### Chassis technology

The aluminium sandwich platter is weighted with copper damping rings and a cast damping mass is also located within the interior. This ensures both good synchronisation and extremely low resonance

of the platter. The brass platter bearing is characterised by very high running smoothness. A Teflon bearing mirror makes the bearings extremely durable...

#### Drive technology

The platter is driven via a precision flat belt and a DC motor with electronic speed control. In addition to the standard 33 1/3 and 45 rpm speeds, archive records can be played at 78 rpm. Delivery does not include cartridge.





Colour: Piano Lacquer white

Dual

# CS 600

Colour: Piano lacquer white





# Technical Specifications

DUAL Turntable, long life and customer-oriented service, these are just some of the attributes of a great success story.

## CS 410

### Fully automatic turntable

Speed r / min. 33/45
Speed accuracy in% DIN / WRMS < +/- 0,15 % DIN
Rumble-to-noise ratio < 60 dB
Cartridge system DMS 402 S
Frequency Response 20 Hz - 19 kHz
Depth sensing capability (300 Hz) 65 µm at 315 Hz
Dimensions (WxHxD) 360 x 95 x 349 mm

Weight 2,88 kg
Colour Silver
Power requirement 230 V

### **CS 440**

### Fully automatic turntable

Speed r / min. 33/45
Speed accuracy in% DIN / WRMS 0.07 %
Rumble-to-noise ratio 46 dB
Rumble-noise ratio 68 dB
Cartridge system DMS 251 S
Frequency Response 20 Hz - 22 kHz
Dimensions (WxHxD) 420 x 133 x 360 mm

Weight 4,8 kg

Colour black, red, blue
Power supply 12V DC, 150 mA

# Dual

# Technical Specifications

### CS 415-2

#### Fully automatic turntable

Speed r / min. 33/45

Speed accuracy in% DIN / WRMS < +/- 0,12 % DIN

Rumble-to-noise ratio

Rumble-noise ratio

62 dB

Cartridge system

DMS 251 S

Frequency Response

20 Hz - 22 kHz

Depth sensing capability (300 Hz)

70 µm at 315 Hz

Dimensions (WxHxD)

420 x 125 x 360 mm

Weight 3,4 kg
Colour black / silver
Power supply 12V DC, 150 mA

### **CS 420**

#### Fully automatic turntable

Speed r / min. 33,45

Speed accuracy in% DIN / WRMS < +/- 0,12 % DIN

Rumble-to-noise ratio

Rumble-noise ratio

68 dB

Cartridge system

DMS 251 S

Frequency Response

20 Hz - 20 kHz

Depth sensing capability (300 Hz)

70 µm at 315 Hz

Dimensions (WxHxD)

360 x 95x 350 mm

Weight 4,92 kg

Colour black / aluminum
Power supply 12V DC, 150 mA

### **CS 435**

#### Fully automatic turntable

Speed r / min. 33/45

Speed accuracy in% DIN / WRMS < +/- 0.12 % DIN Rumble-to-noise ratio 46 dB

Rumble-noise ratio 68 dB

Cartridge system DMS 251 S

Frequency Response 20 HZ - 20 kHz

Depth sensing capability (300 Hz) 70 µm at 315 Hz

Dimensions (WxHxD) 420 x 125 x 360 mm

Weight 3,78 kg

Colour black / silver

Power supply 12V DC, 150 mA



# Dual

# Technical Specifications

## CS 455-1

#### Fully automatic turntable

Speed r / min. 33/45/78

Speed accuracy in% DIN / WRMS < -/+ 0,07 / 0,04 % DIN

Rumble-to-noise ratio

Rumble-noise ratio

Rumble-noise ratio

Cartridge system

OMB 10

Frequency Response

20 Hz - 22 kHz

Depth sensing capability (300 Hz)

70 µm at 315 Hz

Dimensions (WxHxD) 420 x 133 x 360 mm

 Weight
 5,43 kg

 Colour
 black / silver

 Power supply
 12V DC, 150 mA

## **CS 460**

#### Fully automatic turntable

Speed r / min. 33/45/78

Speed accuracy in% DIN / WRMS 0,07 / 0,04%

Rumble-to-noise ratio 48 dB

Rumble-noise ratio 72 dB

Cartridge system OMB 10

Frequency Response 20 Hz - 22kHz

Weight 6,6 kg

Dimensions (WxHxD)

Colour black structure, piano lacquer black,

walnut light

420 x 133 x 360 mm

Power supply 12 V DC, 150 mA

## CS 505-4

#### Semi-automatic turntable

Speed r / min. 33/45

Speed accuracy in% DIN / WRMS < +/- 0,06 / 0,035%

Rumble-to-noise ratio 52 dB
Rumble-noise ratio 75 DB
Cartridge system OMB 10
Frequency Response 20 Hz - 22 kHz
Depth sensing capability (300 Hz) 70 µm at 315 Hz
Dimensions (WxHxD) 440 x 147 x 372 mm

Weight 6,5 kg
Colour black
Power requirement 230 V

#### Manual

Speed r / min.33/45Speed accuracy in% DIN / WRMS0,05%Rumble-to-noise ratio53 dBRumble-noise ratio75 dB

Frequency Response 20 Hz - 22 kHz Depth sensing capability (300 Hz) 80  $\mu$ m at 315 Hz Dimensions (WxHxD) 440 x 119 x 370 mm

Weight 7.00 kg

Colour anthracite metalic Power supply 12V DC, 150 mA

## **CS 600**

#### Manual

Speed r / min. 33/45/78

Speed accuracy in% DIN / WRMS < -/+ 0,07 / 0,04 % DIN

Rumble-to-noise ratio 48 dB Rumble-noise ratio 72 DB

Frequency Response 20 Hz - 22 kHz Dimensions (WxHxD) 430 x  $135 \times 370 \text{ mm}$ 

Weight 8,7 kg

Colour black structure, piano lacquer black,

piano lacquer white

Power requirement I2V DC, I50 mA

■ made ■ in ■ Germany

Subject to correction and alterations.



Dual analogue turntables

www.dual-plattenspieler.eu