# PRS — PIONEER REFERENCE SERIES

### sonic excellence

### redefined

Sound simply does not get better than PRS — the Pioneer Reference Series. Pioneer should know. When it comes to high-end sonic expertise and experience, no other audio maker comes close. That's why PRS turns up consistently at championship sound competitions. Judge for yourself. In pure sonic quality and unparalleled performance, PRS components soar above the crowd. Combined as a system, it sounds supreme.



#### **DEX-P9R**

#### COMPONENT CD RDS TUNER

























Pioneer's lengthy experience with high-end audio systems continues with the DEX-P9R ultra-high-quality CD RDS component tuner. The DEX-P9R transfers digital data directly from the CD to the audio processors, so you get as close as possible to the original sound, with an absolute minimum of distortion and noise. The DEX-P9R can function alone, but when optically paired with the DEQ-P9 high-tech digital preamp/equaliser, it forms a system with unrivalled audio, DSP and network functions. If you really want to experience what this system is capable of, then make sure to use thoroughly engineered and pure sound-proven amps and speakers, such as the PRS series. Go for an unparalleled listening experience.



### DEQ-P9

#### **DIGITAL PREAMP/EQUALISER**

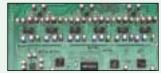


By adding this DSP unit to the DEX-P9R, the discerning driver can enjoy the versatility, sonic purity and distortion-free control of digital signal processing and network functions. By converting the incoming signal to digital form, it enables you to balance the output signal to match the acoustic characteristics of your car and to create your personal sound profile by using the parametric equaliser and Sound Field Control functions.

#### **I** Full Digital System

Pioneer's combination of the ultra-high-quality DEX-PoR component CD RDS tuner and the DEQ-P9, a Universal Digital Preamp/Equaliser, creates a pure audio system that redefines sonic excellence. Pioneer's acclaimed hi-bit technology converts the original 16-bit CD audio signal to 24-bits, which improves signal linearity and maintains pure audio quality during digital processing. The DEX-P9R has optical digital input for connecting Pioneer's XDV-P9 multi-DVD player, and optical digital outputs for connecting to the DEQ-P9 off-board digital network. This network features 3 ultra-precise 51-bit Digital Signal Processors to implement the 31-band graphic equalisation with independent Left/Right control, Time Alignment and the 4-way digital network.

The DEO-Po's outputs are loaded with six Burr Brown 24-bit multi-bit DACs - the best of the best! Each of the audio output channels features 2 separate DACs, arranged in Sign-Magnitude conversion mode. This eliminates zero cross distortion, and offers an astounding S/N ratio and an ultra-wide dynamic range. The



24-Bit multi-bit D/A Converters

final result is unparalleled sonic clarity, faithfully reproducing the resonance of the original recording in any car.

The DEX-P9R also functions as a stand-alone headunit. In this case, external amplifiers can be used to drive the front and rear speakers as well as a subwoofer over the non-fading pre-out. Each of the outputs from the DEX-P9R features a 4 Hi-Volt pre-out, and the analogue conversion is done using Burr Brown 24-bit multi-bit DACs.

To get the most from the DEX-P9R, however, Pioneer strongly recommends using it in combination with the DEQ-P9. The DEQ-P9 has a 4-way output, for driving a low-range woofer, a midrange speaker, a tweeter and a subwoofer. This can also be adapted to a low midrange woofer, a tweeter, a subwoofer and full-range rear fill speakers, if required. The external amplifiers are driven by the DEQ-P9's Hi-Volt outputs. These very high-quality outputs use their own balanced plus/minus PWM power supply, to minimise noise and distortion.

Audiophiles will also appreciate Pioneer's attention to detail. The aluminium front panel and elegant blue OEL display of the DEX-P9R are a sight to behold. For absolute perfection, choose the display off mode to eliminate noise created by the display's power circuits. Special touches such as the copper-plated chassis for reducing noise inducing eddy currents, gold-plated RCA terminals and the use of 99.99 % pure Oxygen-Free Copper in the RCA cables make these products the acoustic perfectionist's dream.



play Off Mode Copper-plated



Graphic Equaliser



Crossover Network Adjustment

# PRS — amplifiers

Pioneer's PRS amps are designed to drive speakers to the limit — or rather, beyond the limit. Thanks to the MOSFET power supply, these amps offer more distortion-free sound power than ever before. In addition, a 4-channel crossover (PRS-X340) gives you several power options, while a high/low switch lets you choose between 3-9 kHz or 40-120 Hz. The bandpass filter makes bi-amplifying a breeze. So, if you want truly awesome power, it's even possible to mount two PRS series amps together.

#### **■ Mount PRS Series Amps Together**

Mount two PRS series amplifiers together to create one massive amplifier. The mounting feet on the interior side can be removed or rotated inward to allow the amplifiers to mount flush against each other.



#### ■ Intelligent Power System

A car's normal 12 V  $\sim$  14 V power supply restricts output power to a theoretical limit of about 50 W through a 4 ohm load. For more power, all Pioneer PRS amplifiers use a PWM Regulated MOSFET power supply unit to boost the car's line voltage and control their own power supply.

This control is exercised by Pioneer's Intelligent Power System, which does everything to ensure you get peak power output without noise by giving an extra current boost to the speakers to compensate for any drop in voltage caused by other electric loads in the car. You can now have the power you crave.

#### **■ MOSFET Devices for Optimum Performance**

Pioneer MOSFET output devices, incorporated in all Pioneer PRS series amplifiers, offer significant advantages over traditional bipolar devices such as faster switching results, less crossover distortion and less noise. High power used to mean high heat and resistance that could lead to noise — but not anymore. Pioneer PRS amplifiers use a PWM Regulated MOSFET power supply unit that's designed to keep its cool even under pounding pressure.

With full MOSFET-driven power supplies and MOSFET output sections, Pioneer PRS amplifiers are better than ever at delivering power!



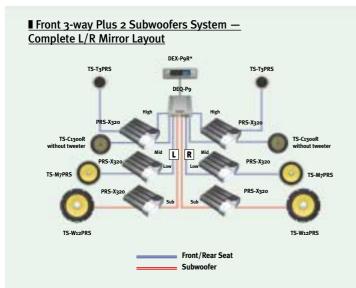
# PRS — amplifiers

PRS Amplifiers — Features	PRS-X340	PRS-X320	PRS-X220*
Max. output power	4 x 150 W	2 x 200 W	2 X 120 W
	2 X 500 W	1 x 800 W	1 X 400 W
Continuous output power (RMS) (14.4 V)			
20 – 20 kHz/4 ohms	4 x 37.5 W	2 x 50 W	2 x 30 W
20 – 20 kHz/2 ohms	4 x 75 W	2 X 100 W	2 x 60 W
Bridged 4 ohms	2 X 150 W	1 X 200 W	1 X 120 W
DIN output power	4 x 115 W or	2 x 163 W or	2 x 87 W or
(DIN45324, +B = 14.4 V)	2 x 360 W	1 x 486 W	1 X 313 W
Variable Crossover network			
A channel	LPF-Low, LPF High,		
	HPF-Low, BPF		
B channel	LPF-Low, LPF-High,		
	HPF-Low, HPF-High		
Low Frequencies (-12 dB/oct)	40 – 120 Hz		
High Frequencies (-12 dB/oct)	3 – 9 kHz		
LPF/HPF Network (-12 dB/oct)		50 – 120 Hz	50 – 120 Hz
Input level/gain control	•	•	•
PWM Regulated MOSFET power supply	•	•	•
High Voltage Input capability (400 mV - 6.5 V)	•	•	•
Low load impedance capability (1 — 8 ohm)	•	•	•
Variable Bass Emphasis (o — 18 dB)		40 – 120 Hz	6o Hz
Subsonic filter: 15 Hz (-24 dB/oct)		•	
Gold-plated RCA input and output terminals	•	•	•
(full range) enabling Link Top connection			
Gold-plated screw-type speaker terminals	•	•	•
Large gold-plated power/ground terminals	•	•	•
(screw-type)			
High performance balanced isolator circuit	•	•	•
Reversible endcaps for installation versatility	•	•	•
MOSFET output section	•	•	•

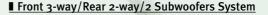
Warning: Pioneer Power Series amplifiers are designed to supply higher output power than conventional amplifiers. Therefore, please use a subwoofer whose nominal input power is about twice the connected Power Series amplifier's continuous output power.

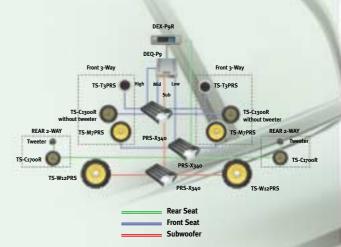
# PRS — recommended system set-ups

To get the most from the DEX-P9R, Pioneer strongly recommends using it in combination with the DEQ-P9 and the PRS amps and speakers, to create a variety of system set-ups that suit your sound preference and in-car audio characteristics. In both the configurations shown below, the external amplifiers are driven by the DEQ-P9's Hi-Volt outputs. These very high-quality outputs use their own balanced plus/minus PWM power supply to minimise noise and distortion. Create the ultimate system by using the DEQ-P9 in its 4-way (low, mid, high, subwoofer) configuration for optimum performance. Each band has its dedicated speaker, while the Crossover Network and Time Alignment feature allow for each band to be precisely tuned. Result: perfectly balanced acoustics. If you prefer to work with a 2-way plus subwoofer system, the resulting extra channel won't go to waste. It can be used to drive a full-range rear fill speaker and will enhance the rear seat acoustics.



To bring out the full potential of the DEQ-P9, set up a front 3-way system plus subwoofer, as shown here. This system configuration guarantees the utmost in accurate sound staging.





The front 3-way configuration in this system consists of a low and midrange speaker and a tweeter, driven by the DEQ-P9's active network. The rear 2-way configuration is driven through the mid-output channel of the DEQ-P9. This mid-output can be used as a full-range output, which can then be combined with the UD-N2PRS crossover network to drive a 2-way system. The rear speaker's sound output will improve the ambience, while also giving rear seat passengers a better listening experience.

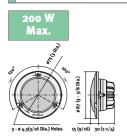
<sup>\*</sup> Not available in the UK.

 $<sup>\</sup>mbox{\scriptsize \star}$  For specific needs — even in this system configuration — rear speakers can be added via the DEX-P9R's rear RCA output.

# PRS — speakers & passive crossover network

#### **TS-T3PRS**

#### 1-1/4" (30 MM) FLUSH MOUNT SOFT DOME TWEETER



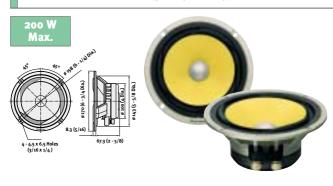


How low does your tweeter go? The tweeter must be able to play sweet and low with an extended low-frequency response that can actually improve the overall imaging and staging of your audio system. The TS-T3PRS has a large-sized, 30 mm Soft Dome Diaphragm for higher sound imaging without any harshness. Its magnetic circuit uses an ultra-strong (30.5 g) Neodymium magnet for faster and more precise transient response. The Sealed Performance Chamber is designed to extend the crossover frequency down to 3 kHz. This chamber was carefully tuned using 4 different acoustic damping materials.

- 30 mm Polyester Fibre diaphragm
- Large Neodymium magnet (30.5 g)
- Die-cast aluminium flange
- Die-cast aluminium back chamber
- Nominal input power: 60 W
- 1,000 30,000 Hz, 92 dB (1 W/1 m)

### TS-M7PRS

#### 6-3/4" (17 CM) MID-BASS DRIVER



The TS-M7PRS Mid-Bass Driver was meticulously designed to reproduce real strings and vocals with less distortion. Thanks to the Aramid Fibre Composite Cone and the Butyl Rubber Symmetrical Balanced Surround, you can expect smooth, accurate sound from mid-bass to upper midrange frequencies. If it's precision control of sound you're after, the TS-M7PRS comes highly recommended. And you can combine it with the DEX-P9R and DEQ-P9R for the ultimate in acoustic pleasure.

- Aramid Fibre Composite Cone woofer
- Symmetrically balanced Butyl Rubber Surround
- Aluminium die-cast frame
- Gold-plated binding post-screw terminals
- Nominal input power: 60 W
- 28 10,000 Hz, 91 dB (1 W/1 m)

### TS-W12PRS

#### 12" (30 CM) DUAL VOICE COIL C-TYPE SUBWOOFER



Introducing TS-W12PRS, a subwoofer that can handle real power and equipped with the Voice Coil Cooling System (VCCS), which together with a giant magnetic circuit, draws heat away from the inside of the sub, so that the sound stays natural and your subwoofer keeps its cool. There's also a 3" (76 mm) dual-layer long voice coil (2 x 4 ohm) that, combined with the extremely light Aramid Fibre Composite Cone, results in a very strong moving force.

- Aramid Fibre Composite Cone woofer
- Dual 4 ohm Voice Coil design (2 or 8 ohm)
- VCCS (Voice Coil Cooling System)
- Aluminium die-cast frame
- Gold-plated binding post-screw terminals
- Low-Q design for use in small sealed box
- Lowest resonance frequency (Fs): 24 Hz
- Qts: 0.39
- Recommended Sealed Enclosure (± 10 %): 28 litres/1.0 cu. ft.
- Vas: 93 litres/3.3 cu. ft.
- Nominal input power: 300 W
- 15 2,000 Hz, 92 dB (1 W/1 m)

### **UD-N2PRS**

#### 2-WAY PASSIVE CROSSOVER NETWORK





Pioneer has designed a 2-way, passive crossover network especially for use with the TS-T<sub>3</sub>PRS and TS-M<sub>7</sub>PRS. With its discriminating EMI (Electromagnetic Interference) shielding chassis, the UD-N<sub>2</sub>PRS network provides simple, clear and precise sound solutions.

- EMI (Electromagnetic Interference) shielding chassis
- Selected quality devices

- Tweeter attenuation: o dB/-3 dB
- Nominal input power: 60 W

## european reference separate component speaker series

The Pioneer European Reference Separate Component Speaker Series, with standard European frame size, offers bold music lovers an exciting opportunity to create a super high-quality sound system.

These speaker systems contain carefully chosen, precision-engineered woofers, tweeters and crossovers, all designed to bring you to new levels of sound perfection. The Pioneer Aramid Fibre Composite Cone woofers bring both music and vocals right into your car, creating a warm and "original" sound. The Soft Dome tweeter reproduces accurately the high notes while the Passive Crossover Network guarantees an optimal distribution of low and high frequencies from the amplifier to the woofers and tweeters.

A guaranteed unforgettable listening experience!

### **TS-C1700R**

#### 17 CM SEPARATE 2-WAY SPEAKER SYSTEM



















- 25 mm Ø Soft Dome tweeter with Neodymium magnet
- VCCS (Voice Coil Cooling System)
- Aluminium die-cast woofer basket
- Gold-plated binding post-screw woofer terminals
- Tweeter fitting kits included:
- Surface mount slant spacer
- Custom tweeter bracket for Renault, Peugeot and Citroën



### **TS-C1300R**

#### 13 CM SEPARATE 2-WAY SPEAKER SYSTEM













- 13 cm Ø Aramid Fibre Composite Cone woofer with Butyl Rubber Edge
- 25 mm Ø Soft Dome tweeter with Neodymium magnet
- VCCS (Voice Coil Cooling System)
- · Aluminium die-cast woofer basket
- Gold-plated binding post-screw woofer terminals
- Tweeter fitting kits included:
  - Surface mount slant spacer
- Custom tweeter bracket for Renault



#### ■ Aramid Fibre Composite Cone Woofer

The woofer of the TS-W12PRS, TS-M7PRS, TS-C1700R and TS-C1300R was meticulously designed to reproduce real strings and vocals with less distortion. Thanks to the Aramid Fibre Composite Cone, you can expect accurate, smooth sound from mid-bass to upper midrange frequencies.



	TS-C1700R	TS-C1300R
Frequency Response	25 – 32,000 Hz	35 – 32,000 Hz
Sensitivity (1 W/1 m)	90 dB	90 dB
Nominal input power	70 W	40 W

# pioneer sound tuning



Pioneer is definitely a respected name on the international tuning scene. Talented professionals count on the high-quality standard of Pioneer products to win. That's why Pioneer high-end gear consistently appears in the most impressive combinations and award-winning cars at many international tuning shows. Continuously launching innovative products with breakthrough technology, Pioneer will certainly make a strong showing in the Sound Quality and SPL (Sound Pressure Level) competitions. Pioneer is also proud to be an official sponsor of the 2003 EMMA (European Mobile Media Association) sound competitions. Check out several of the finest show cars available, loaded with top-of-the-line Pioneer products.

#### PIONEER EUROPE'S MERCEDES ML430











Showing sound professionals how it is done isn't easy. That's why the Pioneer Europe's Mercedes ML430 will be on tour this year, to showcase the best sound quality and installation with state-of-the-art Pioneer equipment. Loaded with the best that Pioneer has to offer — the DEX-P9R component CD tuner; two loudspeakers in the front door: TS-C1300R for the mid-high range, TS-C1700R for the mid-low range; TS-T3PRS tweeters in the dashboard; TS-M7PRS and TS-T3PRS in the rear door; PRS-X340 amplifiers and TS-W12PRS subwoofers — it is certain to be a familiar face at a majority of sound events across Europe.

#### LARS KARLSON'S MERCEDES W124

With a winning mentality and knack for selecting the best equipment, like Pioneer PRS, Lars Karlson is a true sound competition professional. A powerhouse in the Swedish and European championship scene since 1998, you can expect to see his new customised Mercedes dominating the expert class in the IASCA (International Auto Sound Challenge Association) and EMMA competitions. He's already won two world titles in the Expert 600 watts class and scored highest in the Best Installation category at the EMMA 2002 finals. With the purest and highest sound quality Pioneer units in his car, he's set to defend his titles for 2003.



#### **DMITRY MATVEEV'S MINI COOPER**

Only the best would do for this stylish little demo number — from installation to equipment, even to the car body paint job. And all of this was in the hands of Dmitry Matveev and the AM-Style Company. Matveev was the 2000 Europe Sound Contest champion in the professional class. When designing the sound system, he chose the hallmark DEX-P9R CD tuner, connected via an optical cable to the DEQ-P9 digital preamp/equaliser. Next step was adding TS-T3PRS tweeters and a TS-C1300R speaker system in the dashboard, TS-M7PRS mid-bass drivers in the doors, and topped it off with a TS-W12PRS subwoofer in the passenger compartment. PRS series amplifiers installed in the side walls complete the look, matching the chrome





steel cover plates. The entire system is perfectly integrated to complement the hip looks of the new Mini. No wonder it was a star at the MIMS 2002 Exposition in Moscow, and was lauded with a diploma from the Russian Designers Union.

# AMPLIFIERS & SUBWOOFERS

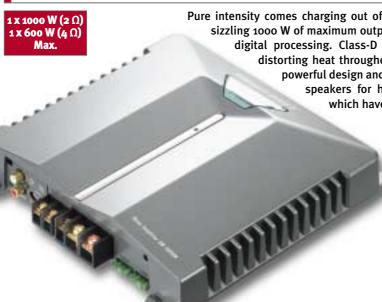




Go ahead. If you're power hungry. For pure clean sound — and solid booming bass — you need to be. Feast on these beauties. New Class-D amps rev up pure and clean power yet take up little space. New GM-X 2- and 4-channel amps pump power off the scale to top out your sound. Does more intense bass sound tempting? Simply kit out a neat new enclosure sub. Better yet, try out one of Pioneer's new SPL topping subwoofers — fit to dominate the sound circuit. These subs break such new ground, the patents are pending. Whichever way you go, you'll get totally off.

GM-D500M CLASS-D AMPLIFIER



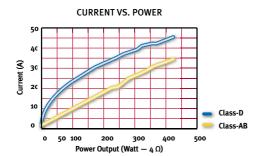


Pure intensity comes charging out of Pioneer's first Class-D amplifier, the GM-D500M. With a sizzling 1000 W of maximum output power, the sound is overwhelmingly crisp thanks to the digital processing. Class-D amps require less electrical current which means less distorting heat throughout the system without bulky heat sink surfaces. With its powerful design and Pioneer technology, this compact amp fuels your subs and speakers for hyper-clean sound without distortion — at power levels which have to be experienced to be believed.

- Max. output power: 1 x 1000 W (2 Ω) or 1 x 600 W (4 Ω)
- Continuous output power (14.4 V): 1 x 500 W (20 240 kHz/2 Ω),
- 1 x 300 W (20 240 kHz/4 Ω)
- 1 x 490 W (4  $\Omega$ ) or 1 x 630 W (2  $\Omega$ ) (DIN 45324, +B = 14.4 V)
- 2 Ω stable operation
- Variable LPF (Low Pass Filter) (40 240 Hz, -24 dB/oct.)
- PWM Regulated MOSFET power supply
- Bass Level control (-22 +12 dB)
- High Voltage Input capability (125 mV 6.5 V)
- Low load impedance capability  $(2 8 \Omega)$
- Large power/ground terminals (screw-type)
- RCA input terminals
- Chassis size (mm): 268 x 52 x 250

#### **■ Technology Class-D Amplifiers**

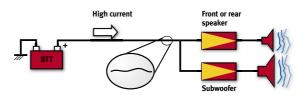
Class-D amplifiers overcome the inefficiencies of traditional Class-A or AB amplifiers. Pioneer's GM-D500M and GM-D505 Class-D amps transform very little power into heat while a very high percentage of the power supply (67 %) is transferred into the load. This results in a very compact amp which needs little input power to produce very high output power.



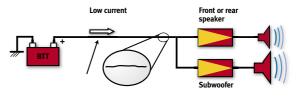
The Class-D amplifier's PWM (Pulse Width Modulator) modulates the original audio input signal with another signal which has a much higher fixed frequency. The result is a digital signal which contains the input signal and a band of frequency components around the modulation frequency. A LPF (Low Pass Filter) will then filter out the 350 kHz frequency pulses and the resulting amplified output signal is then sent to the subwoofer and/or speakers.

The advantage of this amplification is that the power output FETs operate like a switch that is 'on' or 'off': when 'on', the FET acts like a closed switch, no voltage runs through its terminals, and no wasted power is transformed into heat.

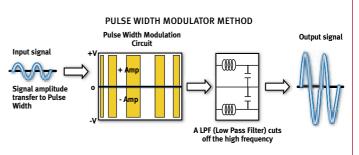
This is why Pioneer's Class-D amp's heat sink can be kept very small, and a stable load can be pumped into your subs and speakers to create a maximum of undistorted. Clear sound.



The high amplifier power required to drive a subwoofer causes unstable current and voltage, which not only goes to the subwoofer but also to the front and rear speakers. As a result, the sound quality is affected and distorted.



A Class-D amplifier needs only 2/3 of the current of a conventional amplifier, so the power supply to both subwoofer and front and rear speakers is more stable. As a result, the sound quality will not be affected, so you can enjoy a very clean sound output without distortion



### **GM-D505**

#### 5-CHANNEL CLASS-D AMPLIFIER



4 x 100 W (4 Ω) + 1 x 300 W (4 Ω) or 1 x 600 W (2 Ω) Max.

With the focus on sound precision as well as high power levels, Pioneer is proud to introduce the GM-D505. Setting a new standard of excellence, this 5-way Class-D amplifier delivers powerful and clear output through five channels: 4 analogue and 1 Class-D mono. This ingenious set-up — complete with Low Pass and High Pass Filters — lets you directly connect four speakers and a subwoofer for a maximum power output of 4 x 100 W plus 1 x 300 W. Highly efficient Class-D technology requires less electrical current. This means less heat generation or, in other words, a superb compact design packed with clean and distortion-free sound



- Max. output power: A/B channel:  $4 \times 100 \text{ W} (4 \Omega)$ SUB channel: 1 x 300 W (4  $\Omega$ ) or 1 x 600 W (2  $\Omega$ )
- Continuous output power (14.4 V): A/B channel:  $4 \times 50 \text{ W} (20 - 20 \text{ kHz}/4 \Omega)$ , SUB channel: 1 x 150 W (20 – 240 Hz/4  $\Omega$ ) or 1 x 300 W (20 – 240 Hz/2  $\Omega$ )
- 4 x 65 W (4  $\Omega$ ) + 1 x 225 W (4  $\Omega$ ) (DIN 45324, +B = 14.4 V) or  $4 \times 56 \text{ W } (4 \Omega) + 1 \times 350 \text{ W } (2 \Omega) \text{ (DIN } 45324, +B = 14.4 \text{ V)}$
- Variable LPF (Low Pass Filter) (40 240 Hz, -12 dB/oct.)
- Variable HPF (High Pass Filter) (40 240 Hz, -12 dB/oct.)
- PWM Regulated MOSFET power supply
- Bass Level control (-22 +12 dB)
- High Voltage Input capability (200 mV 6.5 V)
- Low load impedance capability:  $4 \Omega$  (A/B ch.:  $4-8 \Omega$ /SUB ch.:  $2-8 \Omega$ )
- Input selection: 2/4/6 channel
- Non-fading circuit
- Input level/gain control
- DMOSFET output sections
- Large power/ground terminals (screw-type)
- RCA input terminals
- Chassis size (mm): 350 x 52 x 268



Class-D Amplifiers – Specifications	GM-D500M	GM-D505 A/B Channel SUB Channel
DIN output power (DIN 45324, +B = 14.4 V)	1 x 490 W (4 Ω) or 1 x 630 W (2 Ω)	4 x 65 W (4 Ω) + 1 x 225 W (4 Ω) 4 x 56 W (4 Ω) + 1 x 350 W (2 Ω)
Continuous output power (RMS)  Watts 14,4 V (20 - 240 kHz/2 Ω) (20 - 240 kHz/4 Ω) (20 - 20 kHz/4 Ω)	1 x 500 W 1 x 300 W	1 X 300 W 1 X 150 W 4 X 50 W
Frequency Response (Hz) (+0.5 dB, -3 dB) (+0 dB, -1 dB)	5 Hz – 240 Hz	5 Hz – 240 Hz 10 Hz – 40 kHz
Distortion (%) (10 W/120 Hz) (10 W/1 kHz)	0.03 %	< 0.03 %
S/N Ratio	100 dB	› 95 dB
High voltage input capability	125 mV – 6.5 V	200 mV – 6.5 V
Max. Current Consumption (A/4 Ω)	31	43.8
Chassis Size (W x H x D mm)	268 x 52 x 250	350 x 52 x 268
Unit Weight (kg)	2.9	3.9

# bridgeable amplifiers

Ignite your system with the pulsating power of Pioneer's latest bridgeable amplifiers. These GM-X amps are loaded with the highest power possible for clear sound reproduction thanks to full MOSFET power supplies and DMOS output sections. Choose between 2- or 4-channel amps to pump out masterful distortion-free sound from your subs and speakers.

#### **GM-X574** 4-CHANNEL BRIDGEABLE AMPLIFIER

**GM-X972** 2-CHANNEL BRIDGEABLE AMPLIFIER









**GM-X374** 4-CHANNEL BRIDGEABLE AMPLIFIER



4 x 70 W (2 x 200 W) Max.



**NEW** 

2 X 150 W (1 X 400 W) Max.



# **■ DMOSFET Output Sections and MOSFET Power Supplies**

With full MOSFET-driven power supplies and new DMOS output sections, Pioneer's new GM-X amplifiers are better than ever at delivering power! MOSFETs offer numerous advantages over conventional bipolar output devices, assuring peak power output without noise or distortion.

The GM-X amps now come equipped with a high-performance DMOSFET output section which enhances the amp's high-frequency range performance and linear reponse to signals. So now you can drive your amp even harder, without compromising on the sound quality.

### **GM-X372** 2-CHANNEL BRIDGEABLE AMPLIFIER



GM-X574	GM-X374	GM-X972	GM-X572	GM-X372
		8o Hz	8o Hz	8o Hz
8o Hz	8o Hz			
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•			
			8o Hz	80 Hz 80 Hz

# bridgeable amplifiers

Amplifiers - Specifications	GM-X574	GM-X374	GM-X972	GM-X572	GM-X372
DIN output power (DIN 45324, +B = 14.4 V)	4 x 70 W or 2 x 160 W	4 x 45 W or 2 x 100 W	2 X 200 W or 1 X 480 W	2 X 110 W or 1 X 300 W	2 x 70 W or 1 x 200 W
Continuous output power (RMS)					
Watts 14.4 V (20 – 20 kHz/4 Ω)	4 x 50 W	4 x 35 W	2 X 150 W	2 x 75 W	2 X 50 W
(20 – 20 kHz/2 Ω)	4 x 65 W	4 x 50 W	2 X 200 W	2 X 100 W	2 x 60 W
(Bridged 4 Ω)	2 X 130 W	2 X 100 W	1 X 400 W	1 X 200 W	1 X 120 W
Frequency Response (Hz) (+o dB, -1 dB)	10 Hz – 45 kHz	10 Hz – 45 kHz	10 Hz – 50 kHz	10 Hz – 50 kHz	10 Hz – 50 kHz
Distortion (%) (10 W/1 kHz)	0.008	0.008	0.008	0.008	0.008
S/N Ratio	97 dB	100 dB	100 dB	100 dB	100 dB
High voltage input capability	200 mV - 6.5 V	200 mV - 6.5 V	200 mV - 6.5 V	200 mV - 6.5 V	200 mV - 6.5 V
Max. Current Consumption (A/4 Ω)	26.5	19.2	37-5	18.9	14.4
Chassis Size (W x H x D mm)	269 x 50 x 309	265 x 50 x 237	269 x 50 x 309	265 x 50 x 237	255 x 50 x 169
Unit Weight (kg)	3.7	2.8	3.7	2.8	2

### active crossover networks

Positioned between sound sources and amplifiers, Pioneer Crossover Networks are designed for extremely precise, clear sound reproduction. There's a choice of models, and each one offers accurate adjustment of frequency crossover points to match the characteristics of subwoofers, midrange speakers and tweeters.

#### CD-635 3-WAY ELECTRONIC CROSSOVER NETWORK

• Variable crossover frequency (Mid and Low: 50 Hz – 200 Hz or 500 Hz – 2 kHz, High and Mid 3 kHz – 10 kHz) • Cut-off slope: -12 dB/oct. (all ranges) • Subwoofer and High-Range Phase Switches • Subwoofer output mode switch (Stereo/Mono) • Level Controller • Gold-plated RCA input/output terminals



#### CD-625 2-WAY ELECTRONIC CROSSOVER NETWORK

• LPF and HPF (50-200 Hz) • Cut-off slope: -12 dB/oct. • Variable crossover frequency (50 Hz -200 Hz continuously variable) • Subwoofer Phase Switch • Variable Level Controller for subwoofer (between -15 and +15 dB) • Subwoofer output mode switch (stereo/mono) • Gold-plated RCA input/output terminals



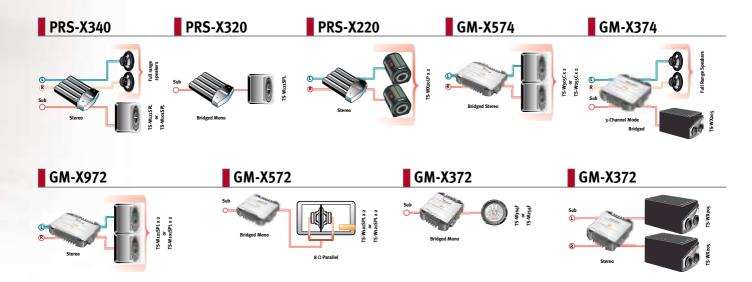
#### CD-615 2-WAY ELECTRONIC CROSSOVER NETWORK

- LPF and HPF Cut-off frequency (HPF: 80 Hz or flat; LPF: 80 Hz) Cut-off slope: -12 dB/oct.
- Subwoofer output RCA input and outputs terminals In-line Noise Filter (Signal Ground Isolator)



# amp/sub configuration examples

Below are a few examples of how to build an in-car sound system with an amplifier and subwoofer combination. These configurations match the capability of each subwoofer and amplifier, to maximise the potential of the system.



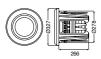
### TS-W5000SPL

COMPETITION CLASS HIGH-QUALITY SPL SUWOOFER FOR PROFESSIONAL USE 30 CM DUAL VOICE COIL C-TYPE SUBWOOFER



Max.





The highest power performer for sonic connoisseurs looking for the ultimate in professional-class subwoofers, the TS-W5000SPL reaches an impressive 5000 W and +170 dB SPL (Sound Pressure Level). Starting from the concept of an SPL competition winner, Pioneer put two years of research and four patentpending designs into its development. The result is simply the best in its class regarding high power handling, louder output, SPL output capability and excellent bass response — and no "burn" at those crucial moments. Its pragmatic design minimises energy loss to achieve a perfect-targeted performance. This flagship model is a certain winner in the SPL World Record competition, as well as in your car.



#### **■ TS-W5000SPL Cut View**

- 1. Interlaced Carbon Fibre Reinforced
- 4. Dual Ceramic-Coated Voice Coils\*
- bottom hold structure

- \* Patent pending.





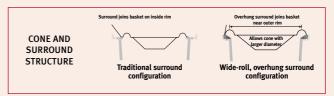
#### **■ Boost Linearity with ADMG**

The Aero-Dynamic Magnetic Gap (ADMG) of the TS-W5000SPL is designed to overcome mechanical and air pressure resistance typical in the +170 dB environment. Each pole piece and top plate has an air channel in a narrow magnetic gap, which effectively reduces physical resistance by over 10 %. This leads to greatly improved linearity at high power input.



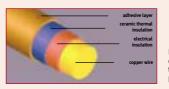
#### ■ Get More SPL with the Overhung Surround

To boost SPL output, Pioneer engineers faced the challenge of increasing the cone surface area while keeping the same size. The result is Pioneer's new patentpending overhung surround design for the TS-W5000SPL. The wide-roll surround extends over the typical gasket area, creating 22 % more cone surface, closer to a 38 cm subwoofer. More moving surface area achieves the higher sound pressure levels you need to come out ahead.



#### ■ No "Burn" with Dual Ceramic-coated Voice Coils

To prep the TS-W5000SPL for +170 dB SPL drag races, Pioneer developed a new patent-pending Ceramic-Coated Voice Coil wire that doubles the power handling capability compared to conventional voice coils. There's no overheating thanks to the superb insulation properties of the ceramic coating, thus no short circuits or "burn". You can count on this sub to perform up to par and deliver a winning moment - time after time.



**DUAL CERAMIC-COATED VOICE COIL** STRUCTURE

In the TS-W5000SPL an additional layer of ceramic compound is used to guard against thermal breakdown. This more than doubles power handling.

### TS-W121SPL

HIGH-QUALITY SPL SUBWOOFER 30 CM DUAL VOICE COIL C-TYPE SUBWOOFER



2000 W Max.







Loads of decibels combined with solid power make the TS-W121SPL a force to be reckoned with. This high-quality subwoofer weighs in at +165 dB with a thumping 2000 W maximum power output. Borrowing some of the innovative ideas from its older brother, the TS-W5000SPL, this 30 cm subwoofer features a Glass fibre/Carbon fibre reinforced IMPP cone and a die-cast aluminium basket. With all of this and more, the TS-W121SPL has what it takes for your next SPL competition, or perhaps your next trip around the block!



# ■ The Right Stuff: Interlaced Fibre Reinforced IMPP Cone

An extremely rigid yet lightweight cone is vital to prevent cone failure at high sound pressure levels. Pioneer's new patent-pending IMPP cone meets this need perfectly. It incorporates a proprietary composite blend of long carbon fibres for the TS-W5000SPL, glass fibres/carbon fibres for the TS-W121SPL and TS-W101SPL or Aramid fibres for the TS-W305C and TS-W255C. The fibres interlace



Long Carbon fibre weave

together to form an exceptionally resilient fibre weave, which provides the strength and rigidity for low distortion, clean and extremely powerful bass. The stuff that champions are made of!

# ■ High dB Durability: 3-layer Fibre Woven Radial Surround

The whole range of new Pioneer subs is outfitted with a patent-pending 3-layer Fibre Woven Radial Surround design. The surround consists of two outer layers (rubber for the TS-W5000SPL) and one inner layer of interwoven fibre (Aramid fibre for the TS-W5000SPL) with a honeycomb weave for even distribution throughout the surround material. This eliminates weak points and improves the high power capability for an extremely durable and resilient surround that resists puckering, even under the extreme power conditions of SPL competitions.



3-layer fibre woven radial surround: an extremely durable and highperformance radial surround

#### ■ Massive Force of the High Power Motor Assembly

The huge triple-stacked motor assembly of the TS-W5000SPL uses three massive, power-packing magnets - at 3 kg each - to drive the voice coil and cone with incredible force, moving the cone assembly as hard as possible to overcome the tremendous air pressure resistance experienced in world class SPL (+170 dB) competitions. The TS-W121SPL and TS-W101SPL feature a double-stacked magnet assembly; the TS-W305C and TS-W255C models feature a dual mass magnet assembly which also provides exceptional force for superior bass. Either way you go, these subs really stack up!

# ■ Solid Support: Aluminium Die-cast Basket with Bottom Hold Structure

During high SPL levels, the motor assembly is placed under extreme pressure. So Pioneer developed an exclusive aluminium die-cast basket which securely supports the motor. This basket structure prevents any unwanted flex or vibration that can cause energy loss and reduce overall performance. A solid winner!



Aluminium die-cast basket structure

### TS-W101SPL

HIGH-QUALITY SPL SUBWOOFER 25 CM DUAL VOICE COIL C-TYPE SUBWOOFER

**NEW** 



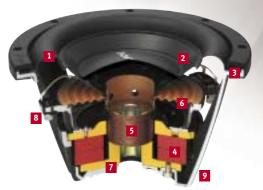






A big fan of SPL? Then the TS-W101SPL may be your winning ticket. The high SPL capability — up to 165 dB - will charge your system with intense power and maximum force. Power output checks in at a heady 1500 W. Based on the same technology found in the TS-W5000SPL competition model, this subwoofer is filled with quality material including a wide-roll, 3-layer fibre woven radial surround. Get ready to rock the block!





■ TS-W121SPL Cut View

1. Wide-roll, 3-layer fibre woven radial surround — 2. Interlaced Glass Fibre/Carbon Fibre Reinforced IMPP Cone — 3. Moulded gasket — 4. Double-stacked high power magnet — 5. 4-layer copper round wire voice coil — 6. Conex damper — 7. Extended and vented pole yoke — 8. Silver binding post terminal — 9. Aluminium die-cast basket with bottom hold structure

#### **■ Dual Voice Coil Subwoofers**

The flexible wiring configurations of the Dual Voice Coil (DVC) subwoofers when used in combination with a low load impedance compatible amplifier, can give an even bigger and more powerful bass reproduction capability. DVC subwoofers have 2 voice coils, of 4 ohm impedance each. Connect the voice coils in parallel for the power of a 2 ohm subwoofer or connect them in series and get an 8 ohm subwoofer. These in turn allow various installation configurations, enabling the creation of a truly superior system.

Additionally, some headunits can combine MOSFET 50 W x 4 with the Crossover Network (Low Pass Filter) of the EEQ (Easy EQ) Plus system, enabling you to connect these subwoofers without amplifiers.

SPL Subwoofers	TS-W5000SPL	TS-W121SPL	TS-W101SPL
Interlaced Carbon Fibre Reinforced IMPP cone	30 cm		
Interlaced Glass Fibre/Carbon Fibre Reinforced IMPP cone		30 cm	25 cm
3-layer, Aramid fibre woven radial rubber surround	•		
Wide-roll, overhung surround design	•		
Wide-roll, 3-layer fibre woven radial surround		•	•
Triple-stacked high power magnets	•		
	(3 x 3 kg)		
Double-stacked high power magnets		•	•
Dual ceramic-coated voice coils	•		
ADMG (Aero-Dynamic Magnetic Gap) design	•		
Aluminium die-cast basket with bottom hold structure	•	•	•
Extended and vented pole yoke	•	•	•
Large diameter Conex double damper with dual damper ring	•		
Large diameter Conex damper with damper ring		•	•
8-gauge wire terminal	•		
Silver binding post terminal		•	•
Dual 4 ohm voice coils design (2 or 8 ohm)	•	•	•
Enclosure use	•	•	•
Frequency response	18 – 2,000 Hz	18 – 2,000 Hz	18 – 2,500 Hz
Lowest Resonance Frequency (Fs)	32 Hz	30 Hz	37 Hz
Qts	0.32	0.328	0.376
Recommended Sealed Enclosure (Litres) (± 10 %)	42.5	42.5	28.3
Vas (Litres)	30.92	34-53	17.54
Sensitivity (1 W/1 m)	88 dB	89 dB	87 dB
Nominal input power	2000 W	750 W	600 W

### subwoofers

If you want extra in-car power, then you need just the right subwoofer to do it. Check out Pioneer's stylish black enclosure (C-type) a-Ccelerate subwoofers for custom-designed sealed, vented or bandpass enclosures. They rev up your system to the lowest of low frequencies. If you're thinking about using the whole boot of your car as an acoustic chamber, then you'll want to go for the free air (F-type) solution. Either way, you'll get bass-kicking performance, the extra power, and tonal perfection that says purely Pioneer.

TS-W305C

30 CM C-TYPE SUBWOOFER



800 W Max.









### **■ TS-W305C Cut View**



ELERATE

1. Wide-roll, 3-layer fibre woven radial surround - 2. Interlaced Aramid Fibre Reinforced IMPP Cone - 3. Moulded gasket - 4. Dual mass high power magnet - 5. 4-layer, long voice coil design - 6. Conex damper - 7. Extended and vented pole yoke

## TS-W255C 25 CM C-TYPE SUBWOOFER



700 W Max.









UD-G305 UD-G255

SPOKE GRILLE FOR TS-W121SPL\* AND TS-W305C SPOKE GRILLE FOR TS-W101SPL\* AND TS-W255C







TS-W3o5C with UD-G3o5 spoke grille

Spoke grille

\* Gasket must be taken off.

### subwoofers



# TS-W304F

#### 30 CM F-TYPE SUBWOOFER











### TS-W254F

#### 25 CM F-TYPE SUBWOOFER











### yccs

#### **■ Voice Coil Cooling System**

Pioneer's Voice Coil Cooling System (VCCS) brings added power to the world of audio

subwoofers. Strong solid bass requires electric juice to get it going. Since the situation can get pretty hot, the heat has to go somewhere. This is where VCCS technology steps in. As voice coil temperatures rise, so does resistance. Unfortunately, increased resistance affects the damping factor and creates distortion. VCCS takes the heat away from the 4- or 2-layer voice coil using a heatresistant, highly conductive aluminium bobbin which enables increased power and tonally accurate sound. Plus, extra slits in the bobbin reduce eddy currents while radiating the heat, which further lowers the temperature of the voice coil. Problem solved, thanks to Pioneer technology.

Subwoofers	TS-W305C	TS-W255C	TS-W304F	TS-W254F	TS-W383F	TS-W203F
Interlaced Aramid Fibre Reinforced IMPP cone	30 cm	25 cm				
Wide-roll, 3-layer fibre woven radial surround	•	•				
Foamed IMPP cone subwoofer			30 cm	25 cm		
with dual-layer Urethane edge						
Foamed IMPP Seamless cone subwoofer					38 cm	20 cm
with dual-layer Urethane edge						
Cone-integrated, moulded diamond plates					•	•
VCCS (Voice Coil Cooling System)			•	•		
Direct-to-cone voice coil mounting ring					•	•
Dual mass high power magnet	•	•				
Direct bobbin mounted Aluminium centre cap			•	•		
Extended and vented pole yoke	•	•	•	•		
Vented and monocoque projected pole yoke					•	•
Lead wires integrated large diameter Conex double damper			•	•	•	•
with dual damper ring						
Conex damper with damper ring	•	•				
Enclosure use	•	•				
Free air use			•	•	•	•
Frequency response	18 – 2,000 Hz	18 – 2,500 Hz	20 - 2,000 Hz	20 - 2,500 Hz	18 – 1,500 Hz	25 - 3,000 Hz
Lowest Resonance Frequency (Fs)	35 Hz	37 Hz	32.3 Hz	39.2 Hz	32.3 Hz	64.7 Hz
Qts	0.34	0.351	0.541	0.765	0.768	0.875
Recommended Sealed Enclosure (Litres) (± 10 %)	42.5	28.3	-		-	
Vas (Litres)	51.45	24.88	86.7	36.16	198.8	9.74
Sensitivity (1 W/1 m)	89 dB	87 dB	94 dB	92 dB	95 dB	91 dB
Nominal input power	400 W	350 W	300 W	250 W	200 W	120 W

TS-W383F 38 CM F-TYPE SUBWOOFER



















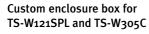


## custom enclosure boxes

Are you looking to get even more performance out of your high-quality subwoofer? Then one of these custom enclosure boxes may be just the solution for you. The customised design fully maximises the potential of Pioneer subwoofers (TS-W121SPL, TS-W101SPL, TS-W305C, TS-W255C). The pre-assembled boxes are quick and easy to install, and due to the comparatively compact design, consume the bare minimum boot space, offering a perfect fit for most cars' rear seat\*.

### UD-W300S





# NEW



UD-W250S



Custom enclosure box for TS-W101SPL and TS-W255C





<sup>\*</sup> For safety reasons, please attach safety belt UD-SB100 when installing custom enclosure boxes UD-W300S and UD-W250S.

# linear power response subwoofers



Pump up the volume! Pioneer's Pump Series subwoofers are truly out-of-this-world. They are loaded with Linear Power Response technology like the unique edgeless construction that lets the diaphragm slide smoothly over a bigger amplitude and the piston with a precision triple damper that pumps out some BIG bass from a relatively small body. These futuristic designed subwoofers will not only impress the eyes, they'll take you to the depths of deep bass!

### TS-WX20LPA

#### 20 CM LINEAR POWER AMPLIFIED SUBWOOFER











- Built-in 200 W max. monaural amplifier, MOSFET PWM power supply
- 20 cm Ø edgeless construction IMPP/Foam Composite Cone woofer with Aluminium die-cast frame
- Bass Reflex design
- Heat-resistant ABS enclosure
- Input/gain control/phase switch
- Built-in variable LPF (50 125 Hz, -12 dB/oct.)
- RCA/speaker level inputs
- Precision Triple Damper (large diameter Conex damper)
- Aluminium die-cast heat sink
- Nominal output power: 100 W
- 25 200 Hz, 106 dB (in-car)

#### ■ TS-WX20LP(A)

These smashing Linear Power Response subwoofers have got muscle. They use an edgeless Bass Reflex system, and a unique moving system to drive the power. The piston with precision triple damper pumps out extreme bass from a relatively small body. And rarely seen in speakers today, Pioneer's high-tech 2-layer edge-wise voice coil. With high density and a rigid structure, it generates a greater moving force. There's no problem with apertures between wires, as in normal voice coils. You can be assured, the Pump subwoofers live up to their name.



1. Aluminium frame - 2. Ring port - 3. Precision Triple Damper - 4. High density resin cabinet - 5. Foam IMPP Drive Cone - 6. Foam PP side wall - 7. Mid-ship mount magnetic circuit with large magnet

### TS-WX20LP

#### 20 CM LINEAR POWER SUBWOOFER









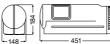
- ullet 20 cm llot edgeless construction IMPP/Foam Composite Cone woofer with Aluminium die-cast frame and 1,160 g. Strontium magnet
- Bass Reflex design
- Heat-resistant ABS enclosure
- 2-layer edge-wise voice coil
- Precision Triple Damper (large diameter Conex damper)
- Gold-plated screw terminals
- Nominal input power: 120 W
- 25 200 Hz, 106 dB (in-car)





### TS-WX10LPA





# 10 CM LINEAR POWER AMPLIFIED SUBWOOFER

- Built-in 100 W max. monaural power amplifier
- 10 cm Ø sealed edgeless construction Foamed IMPP Composite Cone woofer
- Bandpass rear port design with 6.75 litre capacity
  Compact and stylish ABS enclosure
- Input/gain control/phase switch
- RCA/speaker level inputs
- Ice blue illumination (with ON/OFF switch)
- Nominal output power: 50 W
- 35 200 Hz, 101 dB (in-car)



Ice Blue Illumination

### subwoofer boxes

These bandpass subwoofers pack a punch. Amazing what loud and kicking sound can be achieved in such a compact size. The dual large ports and 20 cm woofer deliver fantastic bass. They're easy to handle and highly efficient too. More sound variations can be achieved since they can be fitted into almost any location. The TS-WX205A has a large-sized aluminium heat sink so it stays cool, even if the boot is packed!

The TS-WX105A is a small marvel that fits easily in compact cars, yet delivers 100 watts of powerful bass. This lean and powerful unit is also easy to mount. With its own built-in amplifier, the TS-WX105A comes in a dark grey metallic bass reflex housing.

### **TS-WX205**

#### 20 CM BANDPASS SUBWOOFER











- 20 cm IMPP Composite Cone woofer
- Large dual port bandpass design for kicking and powerful bass
- 18 litre carpeted wooden enclosure
- Heat-resistant 4-layer voice coil
- Large diameter Conex damper
- Auto ON/OFF overload protector
- Gold-plated screw terminal
- Nominal input power: 100 W
- 35 200 Hz, 107 dB (in-car), Max S.P.L. 129 dB (in-car)



#### **■ TS-WX205A Cut View**



High-efficiency designed 20 cm woofer unit — 2. IMPP Cone — 3. Large-sized Strontium magnet — 4. Four-layer long voice coil — 5. Large diameter Conex damper — 6. Projected pole yoke — 7. Ported chamber — 8. Built-in 100 W amplifier with large Aluminum heat sink — 9. Sealed chamber — 10. Rigid carpeted wooden enclosure — 11. Large dual port

#### TS-WX205A

#### 20 CM BANDPASS AMPLIFIED SUBWOOFER











- Built-in 100 W max. monaural amplifier
- 20 cm IMPP Composite Cone woofer
- Large dual port bandpass design for rich and powerful bass
- 18 litre carpeted wooden enclosure
- Heat-resistant 4-layer Dual Voice Coil
- Large diameter Conex damper
- Speaker and RCA level inputs
- Input level control/phase switch
- Built-in variable LPF (50 125 Hz, +140 Hz fix, -12 dB/oct.)
- Aluminium die-cast heat sink
- Nominal output power: 50 W
- 35 200 Hz, 107 dB (in-car), Max. S.P.L. 126 dB (in-car)

#### TS-WX105A

#### 10 CM BASS REFLEX AMPLIFIED SUBWOOFER













- Built-in 100 W max. monaural power amplifier
- 10 cm IMPP Composite Cone woofer
- Long-stroke designed woofer unit with large diameter Conex damper
- Bass Reflex rear port design with 4 litre capacity
- Input/gain control/phase switch
- RCA/ speaker level inputs
- Aluminium die-cast heat sink
- Nominal output power: 50 W
- 40 180 Hz, 100 dB (in-car)



# earmarked for greatness

Your super sound system comes together with Pioneer high-tech hi-fi speakers. Frankly, you won't find a better — or wider — choice. Could be E-Motion's fashionable high-class purity turns you on. Maybe superloud, aggressively styled a-Ccelerates give you a rush. Do custom-fits with easy connections fit your bill? Here's a tip — they all outdo themselves paired with Pioneer headunits. Go for broke or for value — Pioneer creds are unrivalled. So is the sound.





TS-E175C 17 CM SEPARATE 2-WAY SPEAKER SYSTEM





- Tweeter fitting kits included:
- Surface mount slant spacer
- Custom tweeter bracket for Renault, Peugeot and Citroën

profile mid/tweeter subgrille.





TS-E135C 13 CM SEPARATE 2-WAY SPEAKER SYSTEM



- Tweeter fitting kits included:
  - Surface mount slant spacer
  - Custom tweeter bracket for Renault

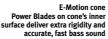






The E-Motion series takes a unique approach to powerful, accurate sound. This is thanks to the spectacular alloy present in the 3-D Magnesium Hybrid cones. This material is exceptionally rigid and ultra-light, producing highly accurate, rich sound. Magnesium is combined with aluminium to form the E-Motion hybrid cone. Next, a Pulp Drive cone is partially pasted onto the backside of the hybrid cone to ensure smoother frequency response. A very light material that is resistant to longitudinal strain, pulp eliminates additional vibration and distortion. All this results in a smoother pure sound.

Another innovative feature of the 3-D Magnesium Hybrid cones is the addition of "Power Blades" directly onto the cone's inner surface. These protrusions act as additional support, eliminating unwanted vibration and increasing the rigidity of the cone. This in turn guarantees that E-Motion speakers offer the lowest distortion possible to produce the purest, most accurate sound and maximum power handling.









supershiny design is not only appealing to the eye — there is also a practical side to the E-Motion speakers: they have multiple

installation possibilities due to Pioneer's unique basket design and the slim





arge screws for high-grade cabling (TS-E699









TS-E2095 20 CM 3-WAY SPEAKERS

**TS-E6995** 6" x 9" 3-WAY SPEAKERS

**TS-E1795** 17 CM 3-WAY SPEAKERS

















TS-E1775 17 CM 2-WAY SPEAKERS

TS-E1695 16 CM 3-WAY SPEAKERS

TS-E1675 16 CM 2-WAY SPEAKERS







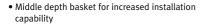
















TS-E1395 13 CM 3-WAY SPEAKERS

TS-E1375 13 CM 2-WAY SPEAKERS

TS-E1075 10 CM 2-WAY SPEAKERS





















• Round/square compatible frame

	TS-E175C	TS-E135C	TS-E6995	TS-E2095	TS-E1795	TS-E1775	TS-E1695	TS-E1675	TS-E1395	TS-E1375	TS-E1075
3-D Magnesium Hybrid Cone woofer with Butyl rubber edge (ø)	17 CM	13 cm	6" x 9"	20 CM	17 cm	17 cm	16 cm	16 cm	13 cm	13 cm	10 CM
Titanium Dome midrange (ø)			38 mm	38 mm	30 mm		30 mm		25 mm		
Titanium Dome tweeter (ø)	27 mm	27 mm				30 mm		30 mm		25 mm	25 mm
Tweeter (ø)			12 mm	12 mm	10 mm		10 mm		10 mm		
Power Blades	•	•	•	•	•	•	•	•	•	•	•
Equaliser	•	•									
In-line crossover network	•	•									
Frequency Response	28 - 32,000 Hz	40 - 32,000 Hz	25 - 32,000 Hz	25 - 32,000 Hz	28 - 32,000 Hz	28 - 30,000 Hz	30 - 32,000 Hz	30 - 30,000 Hz	40 - 32,000 Hz	40 - 30,000 Hz	45 - 30,000 Hz
Sensitivity (1 W/1 m)	91 dB	90 dB	91 dB	91 dB	91 dB	90 dB	91 dB	90 dB	90 dB	90 dB	90 dB
Nominal input power	60 W	35 W	80 W	90 W	60 W	35 W	60 W	50 W	35 W	30 W	25 W

# a-Ccelerate speaker series

You are the ruler of car audio sound, right? Then these power-kicking, black rebels from Pioneer's a-Ccelerate series must be yours. With a full line of bass-blasting sizes, you'll have them booming away in your car in no time. Volume champs with an in-your-face tough look, these are definitely some of the loudest and meanest speakers around. You'll get amazing sound quality too, thanks to Pioneer's proven speaker technology excellence. Opt for one of the new 6" x 9" models or the slick separate component speaker systems with separate tweeters for precise sound imaging. And if you really want the earth to rumble beneath your feet, then you've got to get your hands on one of the a-Ccelerate subwoofers for the



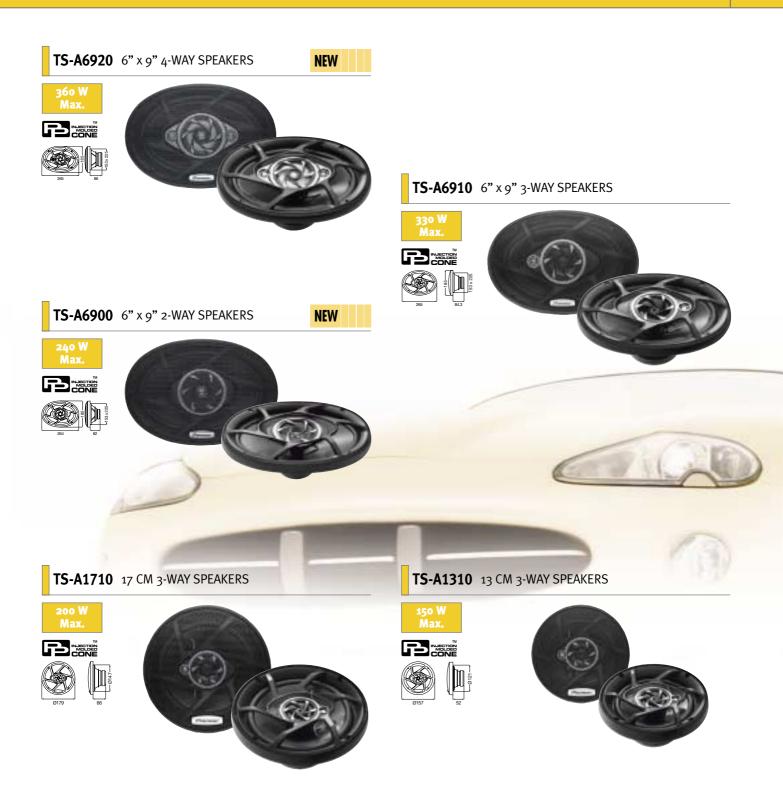
- Custom tweeter bracket for Renault



ultimate sound explosion.

- Custom tweeter bracket for Renault, Peugeot

and Citroën



	TS-A171C	TS-A131C	TS-A2510	TS-A2010	TS-A6920	TS-A6910	TS-A6900	TS-A1710	TS-A1310
Crystalline IMPP Cone woofer with Butyl rubber edge (Ø)	17 cm	13 cm	25 cm	20 CM	6" x 9" (163 x 237 mm)	6" x 9" (163 x 237 mm)		17 cm	13 cm
Crystalline IMPP Cone woofer (Ø)							6" x 9" (163 x 237 mm)		
PPC (Pearl PolyCarbon) balanced dome midrange (Ø)					66 mm				
Cone Midrange (Ø)			66 mm	66 mm		66 mm		42 mm	42 mm
PEI balanced dome tweeter with Neodymium magnet (Ø)	28 mm	28 mm							
Tweeter (Ø)			18 mm	18 mm	18 mm	18 mm	66 mm	10 mm	10 mm
In-line crossover network	•	•							
Frequency Response	28 — 30,000 Hz	40 — 30,000 Hz	25 — 30,000 Hz	25 — 30,000 Hz	25 — 32,000 Hz	25 — 30,000 Hz	28 — 26,000 Hz	28 — 30,000 Hz	40 — 30,000 Hz
Sensitivity (1 W/1 m)	92 dB	91 dB	93 dB	93 dB	93 dB	93 dB	93 dB	92 dB	91 dB
Nominal input power	60 W	40 W	100 W	90 W	80 W	80 W	40 W	50 W	35 W

# TS-G universal speaker series

If you are shopping for speakers that sound right, look tough and are affordable on top, then take a closer look at the TS-G speakers. You'll enjoy quality sound from this speaker series with increased power handling capability. Your music will sound even better thanks to the  $IMPP^{TM}$  cone — for accurate low- and mid-tone reproduction — and the neodymium magnet tweeter produces exceptionally natural and smooth highs. Easy to install, the TS-G speakers feature a shallow basket frame that fits in most cars.

#### TS-G1746 17 CM 2-WAY SPEAKERS







TS-G1346 13 CM 2-WAY SPEAKERS



**TS-G1316** 13 CM DUAL-CONE SPEAKERS



TS-G1046 10 CM 2-WAY SPEAKERS



INJECTION MOLDED CONE



TS-G1016 10 CM DUAL-CONE SPEAKERS





• Round/square compatible frame • Round/square compatible frame



#### **■ Neodymium Magnet Tweeter**

With its high magnetic flux density, neodymium enables faster and more precise responses. Using this material, Pioneer created a smaller tweeter with a significantly reduced distortion factor.

	TS-G1746	TS-G1716	TS-G1346	TS-G1316	TS-G1046	TS-G1016
IMPP Cone Woofer (Ø)  Cone Tweeter with Neodymium Magnet (Ø)	17 cm 42 mm	17 cm	13 cm 42 mm	13 cm	10 cm 37 mm	10 CM
Shallow basket design	•	•	•	•	•	•
Frequency Response	30 – 25,000 Hz	30 – 22,000 Hz	40 – 25,000 Hz	40 - 22,000 Hz	45 – 25,000 Hz	45 – 22,000 Hz
Sensitivity (1 W/1 m)	92 dB	92 dB	91 dB	91 dB	90 dB	90 dB
Nominal input power	35 W	35 W	25 W	25 W	20 W	20 W

# speakers

Pioneer has a varied selection of specialty speakers to create that perfectly tuned in-car sound. You'll find cross-axial speakers which focus the tweeter to the front for enhanced mid- to high frequencies. Surface mount speakers may be just what you're looking for along the lines of installation flexibility. For those of you who want the ultimate cinema experience in-car, add on the new TS-CX7 centre speaker to achieve 5.1-channel surround sound. And specialised tweeters give your system that finishing touch.

### Cross-axial Speakers

TS-R1600II\* 16 CM 2-WAY SPEAKERS







	TS-R1600II
Cone woofer (Ø)	16 mm
Cone tweeter (Ø)	42 mm
Frequency Response	30 – 25,000 Hz
Sensitivity (1 W/1 m)	90 dB
Nominal input power	30 W

### Surface Mount Speakers

TS-CX7 FULL-RANGE CENTRE SPEAKER









	TS-CX7	TS-X150	TS-44
Full-range speaker (Ø)	•		10 cm
Cone Woofer (Ø)		13 cm	
Aramid fibre composite cone midrange	57 mm		
with Butyl rubber edge (Ø)			
Double Neodymium magnets	•		
Horn midrange (Ø)		27 mm	
Horn tweeter (Ø)		20 mm	
Frequency Response	140 — 30,000 Hz	75 — 20,000 Hz	180 — 20,000 Hz
Sensitivity (1 W/1 m)	8o dB	89 dB	88 dB
Nominal input power	20 W	20 W	10 W

TS-X150

3-WAY SPEAKERS















TS-T23

TS-S15

#### **Tweeters**

**TS-T23** DOME TWEETERS









TS-S15 TUNE-UP DOME TWEETERS







	Soft dome styrene-rubber-coated polyester tweeter (Ø)		20 mm
	Cut afficiency		
	Cut-off frequency	± 4000 Hz with	
		-12 dB/oct.	
	Crossover frequency		± 6000 Hz
			with -6 dB/oct.
	Versatile mounting (3-way surface mount)	•	•
TWEETERS	Slant spacer included	•	•
TWEETERS	In-line crossover network		•
	Frequency Response	2,500 - 30,000 Hz	2,500 – 30,000 Hz
	Sensitivity	90 dB (1 W/1 m)	90 dB (1 W/0.5 m)
ATTENNA .	Nominal input power	50 W	40 W

Soft dome liquid crystal fibre (Polyarylate) tweeter (Ø)

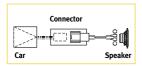
# separate component high-grade custom-fit speakers

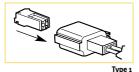
This series provides a selection of separate woofers and tweeters that are combined to create a system giving truly outstanding performance. The woofer is installed in the existing space while the tweeter can be fixed either in the custom-fit tweeter hole, or anywhere else convenient to optimise the overall sound image in the front of the car. The Easy Connector makes installation even simpler, allowing you to connect the speakers to the car's speaker connectors.

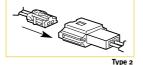


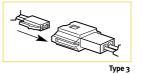
**Easy Connector** 

#### ■ Easy Connectors









**TS-H1704** 17 CM SEPARATE 2-WAY SPEAKER SYSTEM









Fiat Punto, Peugeot 206

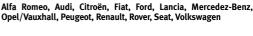














- Tweeter fitting kits included:
- Surface mount slant spacer
- Custom tweeter bracket for Renault/Peugeot/Citroën, Opel/Vauxhall/VW

# **TS-H1710** <sup>17</sup> CM SEPARATE <sub>2-WAY</sub> SPEAKER SYSTEM

Seat, Volkswagen











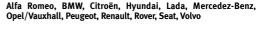














- Tweeter fitting kits included:
- Surface mount slant spacer
- Custom tweeter bracket for Renault
- · Original tweeter location fitting for Mercedes A Class

	TS-H1704	TS-H1703	TS-H1710	TS-H1303
IMPP Cone woofer with Butyl rubber edge (Ø)	17 cm	17 cm		13 cm
Carbon-Graphite blended IMPP Cone woofer with Butyl rubber edge (Ø)			17 cm	
Metal-coated PI balanced dome tweeter with Neodymium magnet (Ø)		26 mm		26 mm
PEI balanced dome tweeter with Neodymium magnet (Ø)	22 mm			
Titanium dome tweeter (Ø)			20 mm	
Power Blades	•			
Cone-integrated conical domes		•		•
Easy Connector		•		•
In-line crossover network	•	•		•
OFC Speaker Cords			•	
Frequency Response	30 — 30,000 Hz	30 — 30,000 Hz	30 — 30,000 Hz	40 — 30,000 Hz
Sensitivity (1 W/1 m)	91 dB	91 dB	88 dB	90 dB
Nominal input power	35 W	50 W	40 W	35 W

# coaxial high-grade custom-fit speakers

For a combination of impressively rich, natural sound with very simple installation, Coaxial High-Grade Custom-Fit speakers are the clear choice. IMPP cone woofers with cone-integrated conical domes ensure richer bass sounds, and the unique Swivel Tweeter — with an adjustment range of 70° horizontally and 20° vertically — allows greater customisation flexibility. Now connection is even easier with the Easy Connector - just hook up the speakers to the car's speaker connectors.





**TS-H137** 13 CM 2-WAY SPEAKERS





Alfa Romeo, Audi, Citroën, Fiat, Ford, Lancia, Mercedes-Benz, Opel/Vauxhall, Peugeot, Renault, Rover, Seat, Volkswagen



Alfa Romeo, BMW, Citroën, Hyundai, Lada, Mercedes-Benz, Opel/Vauxhall, Peugeot, Renault, Rover, Seat, Volvo























TS-H683

6" x 8" 3-WAY SPEAKERS









4" x 6" 2-WAY SPEAKERS





Daewoo, Fiat, Lancia, Seat, Volkswagen







#### **TS-H107**

10 CM 2-WAY SPEAKERS

**NEW** 



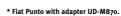


Audi, BMW, Fiat, Lancia, Mercedes-Benz, Peugeot, Renault, Rover, Saab, Seat, Suzuki, VW, Volvo



















• Round/square compatible frame

	TS-H177	TS-H137	TS-H683	TS-H467	TS-H107	TS-H871
IMPP Cone woofer (Ø)	17 cm	13 cm		4" x 6" (95 x 153 mm)	10 CM	
Foamed IMPP Composite cone woofer with Butyl rubber edge (Ø)			6" x 8" (145 x 204 mm)			
Carbon-Graphite blended IMPP Cone woofer (Ø)						8.7 cm
Foamed PPC (Pearl PolyCarbon) balanced dome midrange with Strontium magnet (Ø)			36 mm			
Metal-coated PI balanced dome tweeter with Neodymium magnet (Ø)	26 mm	26 mm		26 mm	26 mm	
PEI dome tweeter with Neodymium magnet (Ø)						13 mm
Dome tweeter (Ø)			10 mm			
Swivel Tweeter	•	•				
Cone-integrated conical domes	•	•		•	•	
Easy Connector	•	•				
Frequency Response	30 — 30,000 Hz	40 — 30,000 Hz	30 — 30,000 Hz	45 — 30,000 Hz	45 — 30,000 Hz	60 — 28,000 Hz
Sensitivity (1 W/1 m)	91 dB	90 dB	91 dB	90 dB	90 dB	88 dB
Nominal input power	50 W	35 W	50 W	25 W	25 W	15 W

### Separate Component Custom-Fit Speakers

Separate Component Custom-Fit Speakers are developed for those looking for high power handling and easy-fitting at an affordable price with better sound imaging thanks to the separate tweeters.





35 - 30,000 Hz

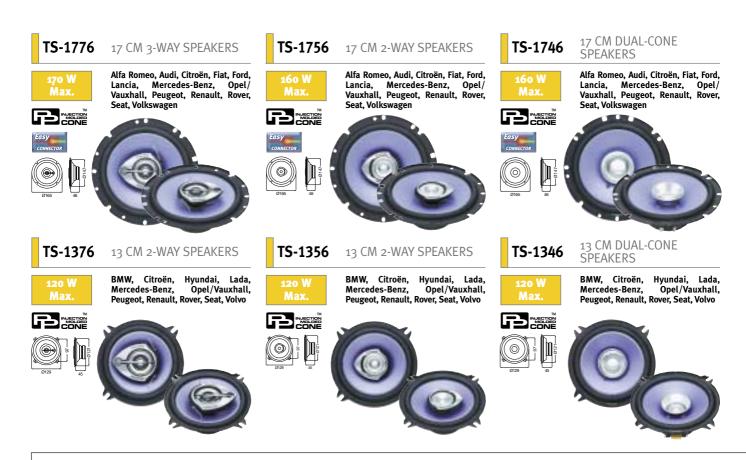
40 - 30,000 Hz

### **Custom-Fit Speakers**

Custom-Fit speakers offer solid quality at an affordable price. What's more, they boost the power even higher. And you can enjoy a wider and smoother frequency response, thanks to the IMPP™ Cone. The 17 cm models feature an Easy Connector — making it simple to connect them up to the car's speaker connectors — and the 10 cm models feature removable screw holes, allowing compatibility with round and square basket frames. With such an extensive choice, you're sure to find your sound solution here.

Shallow basket design In-line crossover networ

Sensitivity (1 W/1 m)



TS-1056 10 CM 2-WAY SPEAKERS

100 W Max. Alfa Romeo, Audi, BMW, Citroën, Fiat, Mercedes-Benz, Peugeot, Renault, Rover, Saab, Seat, Subaru, Suzuki, Volkswagen, Volvo







• Round/square compatible frame

**TS-876** 

8.7 CM 2-WAY SPEAKERS

40 W Max.

Fiat\*, Saab, Seat, Volkswagen

\* Fiat Punto with adapter UD-M870.





**TS-874** 8.7

8.7 CM DUAL-CONE SPEAKERS

40 W Max.

Fiat\*, Saab, Seat, Volkswagen

\* Fiat Punto with adapter UD-M870.





TS-4628

4" x 6" 2-WAY SPEAKERS





Daewoo, Fiat, Lancia, Nissan, Seat, Volkswagen



TS-1046

#### 10 CM DUAL-CONE SPEAKERS

100 W Max. Alfa Romeo, Audi, BMW, Citroën, Fiat, Mercedes-Benz, Peugeot, Renault, Rover, Saab, Seat, Subaru, Suzuki, Volkswagen, Volvo







• Round/square compatible frame

**TS-875** 

8.7 CM 2-WAY SPEAKERS

Fiat Punto

50 W Max.





TS-4638

4" x 6" 3-WAY SPEAKERS

Daewoo, Fiat, Lancia, Nissan, Seat, Volkswagen

70 W Max.





TS-4621

4" x 6" DUAL-CONE SPEAKERS

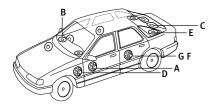
60 W Max.





	TS-1776	TS-	1756	TS-1746	TS-1376	TS-	1356	TS-1346
IMPP Cone woofer (Ø)	17 cm	17	cm	17 cm	13 cm	13	cm	13 cm
Cone midrange with Neodymium magnet (Ø)	42 mm				42 mm			
Cone tweeter (Ø)		42	mm			36	mm	
Tweeter (Ø)	10 mm				10 mm			
Shallow basket design	•		•	•	•		•	•
Easy Connector	•		•	•				
DIN/Peugeot type terminal					•		•	•
Frequency Response	30 – 26,000 Hz	30 - 22	,000 Hz	30 - 22,000 Hz	40 – 26,000 Hz	40 - 22	2,000 Hz	40 – 22,000 Hz
Sensitivity (1 W/1 m)	92 dB	92 dB		92 dB	91 dB	91	ı dB	90 dB
Nominal input power	35 W	35	; W	35 W	25 W	2	5 W	25 W
	TS-1056	TS-1046	TS-876	TS-875	TS-874	TS-4638	TS-4628	TS-4621
IMPP Cone woofer (Ø)	10 CM	10 cm		8.7 cm				
Cone woofer (Ø)			8.7 cm		8.7 cm	4" x 6" (95 x 153 mm)	4" x 6" (95 x 153 mm)	4" x 6" (95 x 153 m
Cone midrange (Ø)						42 mm		
Cone tweeter (Ø)	30 mm		38 mm	30 mm			42 mm	
Tweeter (Ø)						11 mm		
Shallow basket design	•	•						
DIN/VAG & Renault type terminal	•	•						
Frequency Response	45 – 22,000 Hz	45 – 22,000 Hz	90 – 20,000 Hz	75 – 30,000 Hz	90 – 20,000 Hz	45 – 28,000 Hz	45 – 25,000 Hz	50 – 20,000 Hz
Sensitivity (1 W/1 m)	90 dB	90 dB	90 dB	89 dB	90 dB	90 dB	90 dB	90 dB
Nominal input power	20 W	20 W	10 W	10 W	10 W	15 W	10 W	10 W

# custom-fit speaker application chart



Pioneer offers a wide range of Universal and Custom-Fit speakers to fit many cars. The chart below lists many popular car models, and the Pioneer speakers which can fit them. With Custom-Fit speakers, installation is easy and exact; they fit perfectly in the speaker holes — no cutting or drilling necessary. If Universal speakers — see chart pages 89-91 — are preferred, they can be mounted in the car's speaker provisions with the use of an adaptor kit (see Accessories), or mounted in the back. (This list may not apply to all cars listed, because not all cars in each country have all the required speaker provisions.)

CAR Brand	MODEL & INTRODUCTION DATE	Location	HIGH GRADE SEPARATE COMPONENT	HIGH GRADE CO-AXIAL	SEPARATE COMPONENT	3-Way	2-Way	Dual Cone	SPEAKER Interface Kits	SPEAKER ADAPTOR PLATES
ALFA ROMEO	145 (9/94-4/01)	A	TS-H1703* (1)	TS-H177*	TC :=0= (;)	TS-1776	TS-1756	TS-1746		UD-M171*
		A F	TS-H1303	TS-H137	TS-1785 (1)	TS-1376	TS-1356	TS-1346		
	146 (9/95-4/01)	A	TS-H1703* (1)	TS-H177*	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M171*
		G	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		
	155 (3/92-9/97)	G C	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		UD-M171
	156 (9/97-)	C A	TS-H1703*	TS-H177*	TS-1785	TS-1776	TS-1756	TS-1746		UD-M171 UD-M171*
	-10° G/9/7	A			TS-1785					
		G	TS-H1703*	TS-H177*	TS-1785	TS-1776	TS-1756	TS-1746		UD-M171*
	164 Super (3/92-9/98)	A A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
	166 (10/98-)	A				TS-1776	TS-1756	TS-1746		
		A C	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
		С	10 112, 03	,,	TS-1785					
		G G			TS-1785	TS-1776	TS-1756	TS-1746		
AUDI	80 4-door (11/91-12/94) 90 Coupé (9/88-12/94)	B B		TS-H107 TS-H107			TS-1056 TS-1056	TS-1046 TS-1046		
	V8 (10/88-4/94)	В		TS-H107			TS-1056	TS-1046		
	A4 4-door (01/01-)	A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
		G	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		UD-M174VW
	A6 (3/97-)	G A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		UD-M174VW
	- 5.77	A			TS-1785					
		G G	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
	TT (10/98-)	A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
BMW	3-series 2-door (10/85-1/92)	D	TS-H1303		13-1/65		TS-1356	TS-1346		
	3 Touring (1/88-4/00)	D E	TS-H1303	TS-H107			TS-1356 TS-1056	TS-1346 TS-1046		
	3-series 4-door (12/90-2/98)	D	TS-H1303	15 11207			TS-1356	TS-1346		
	3-series Coupé (1/92-1/99) 3 Compact (3/94-10/00)	D D	TS-H1303 TS-H1303				TS-1356 TS-1356	TS-1346 TS-1346		
	5-series (1/88-6/95)	C D	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	5-series (7/95-)	C	TS-H1303 TS-H1303	TS-H137		TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	7. sories (10/96-2/04)	D C	TS-H1303 TS-H1303	TS-H137 TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	7-series (10/86-3/94)	D	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
CITROËN	MINI (10/00-) AX exc. HIT 3-door (8/91-9/96)	A F	TS-H1703 TS-H1303	TS-H <sub>177</sub> TS-H <sub>137</sub>		TS-1776 TS-1376	TS-1756 TS-1356	TS-1746 TS-1346		UD-M177VW
	AX exc. HIT 5-door (8/91-9/96)	A				TS-1376	TS-1356	TS-1346		
	AX HIT 3-door (8/91-9/96) AX HIT 5-door (8/91-9/96)	F A	TS-H1303	TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		-
	BX (8/86-2/93)	A	TC U.s.s.	TC 11			TS-1356	TS-1346		
	Saxo 3-door (10/96-9/01) Saxo 5-door (10/96-9/01)	A	TS-H1303 TS-H1303	TS-H137 TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	Xantia (3/92-12/00)	G A	TS-H1303 TS-H1703 (1)	TS-H137 TS-H177		TS-1376 TS-1776	TS-1356 TS-1756	TS-1346 TS-1746		
	741111d (3/92 12/00)	A			TS-1785 (1)					
	XM 4-door (7/89-12/00)	G A	TS-H1303 TS-H1703	TS-H137 TS-H177		TS-1376	TS-1356 TS-1756	TS-1346 TS-1746		
	1 97.7	A	1	,,	TS-1785	TC/				
	XM Break (1/92-12/00)	E A	TS-H1703	TS-H177		TS-1376	TS-1356 TS-1756	TS-1346 TS-1746		
		A E			TS-1785		TS-1356			
	C3 (09/01-)	A	TS-H1703 (1)	TS-H177		TS-1776	TS-1756	TS-1346 TS-1746		
	C5 (01/01-)	A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746		
	C) (02/02)	A			TS-1785 (1)					
		G	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		-
	ZX Reflex/Avantage (4/91-9/97)	A A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	ZX Aura/Volcano (4/91-9/97)	G	TS-H1303 TS-H1303	TS-H137 TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	ZX 3-door (10/92-9/97)	A F	TS-H1303 TS-H1303	TS-H137 TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	ZX Break (4/91-2/98)	A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	Xsara 5-door (10/97-)	G A	TS-H1303 TS-H1703 (1)	TS-H137 TS-H177		TS-1376 TS-1776	TS-1356 TS-1756	TS-1346 TS-1746		+
		A			TS-1785 (1)					
	Berlingo (10/96-9/02)	G B	TS-H1303	TS-H137 TS-H107		TS-1376	TS-1356 TS-1056	TS-1346 TS-1046		<u></u>
	Berlingo (10/02-)	A A			TS-1785 (1)		TS-1756	TS-1746		
	Evasion (3/94-9/02)	A	TS-H1703 (1)	TS-H177		TS-1776	TS-1756	TS-1746		
		A F	TS-H1703*	TS-H177*	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M171*
	60( / )	F	.5.11/05	.5 .11//	TS-1785	.5 1//0				UD-M171
	C8 (10/02-)	A			TS-1785 (1)		TS-1756	TS-1746		
	Xsara Break (3/98-)	A	TS-H1703 (1)	TS-H177		TS-1776	TS-1756	TS-1746		1
		A G	TS-H1303	TS-H137	TS-1785 (1)	TS-1376	TS-1356	TS-1346		<u></u>
	Xsara Coupé (10/98-)	A	TS-H1703 (1)	TS-H177		TS-1776	TS-1756	TS-1746		

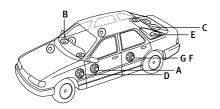
Car Brand	MODEL & INTRODUCTION DATE	Location	HIGH GRADE SEPARATE COMPONENT	HIGH GRADE CO-AXIAL	SEPARATE COMPONENT	3-Way	2-Way	Dual Cone	SPEAKER Interface Kits	SPEAKER ADAPTOR PLATES
CITROËN	Xsara Coupé (10/98-)	A			TS-1785 (1)					
	Picasso (12/99-)	F A	TS-H1303 TS-H1703 (1)	TS-H137 TS-H177		TS-1376 TS-1776	TS-1356 TS-1756	TS-1346 TS-1746		
		A G	TS-H1303	TS-H137	TS-1785 (1)	TS-1376	TS-1356	TS-1346		
		G	13-11303	13-11137		TS-1776	TS-1756	TS-1746		
DAIHATSU	Sirion (10/99-)	G A			TS-1785	TS-1776	TS-1756	TS-1746		UD-M171
		A			TS-1785			TS-1746		UD-M171 UD-M171
		G   TS-1785   TS-1776   TS-1756   G   TS-1785   TS-1776   TS-1756   A   TS-1785   TS-1776   TS-1756   G   TS-1785   TS-1776   TS-1776   G   TS-1785   TS-1785   G   TS-1785   TS-1776   TS-1756   G   TS-1786   TS-1796   G   TS-1796   TS-1796   G			UD-M171					
DAEWOO	Matiz (3/99-) Lanos 3-/5-door (1/97-)					TS-4638		TS-1046 TS-4621		
	Tacuma (01/00-)		TS-H1303	TS-H137		TS-1376		TS-1346		
FIAT	Coupé (12/93-)	A	TS-H1703				TS-1756	TS-4621 TS-1746		
	Croma (7/86-9/96)			TS-H467	TS-1785	TS-4638	TS-4628	TS-4621		
		E		TS-H467		TS-4638	TS-4628	TS-4621		UD MO
	Punto (9/93-8/99)			15-8871				TS-874		UD-M870
	Punto Cabrio (2/04-8/00)							TS-1046 TS-87/		UD-M870
	1 4110 24310 ()/94 0/99)	В					TS-875			05 1110/0
	Punto (9/99-)	<u> </u>	TS-H1704 (1)	TS-H467			TS-4628 TS-1756			
					TS-1785					
	Tempra Break (3/92-9/96)	В					TS-1056	TS-1046		
	Tipo (2/88-8/95)			TS-H107		TS-4638		TS-4621		
	Uno Series (9/89-8/93)	E					TS-1056	TS-1046		
	Seicento / 600 (9/97-)	В					TS-1056	TS-1046		
	Ulysse (3/94-)		TS-H1703 (1)	TS-H177	TS-178E (1)	TS-1776	TS-1756	TS-1746		
		F	TS-H1703*	TS-H177*	, , , , ,	TS-1776	TS-1756	TS-1746		UD-M171*
	Ulysse (10/02-)				IS-1785		TS-1756	TS-1746		UD-M171
		A			TS-1785 (1)	TC 4377				
					TS-1785	13-1//0	13-1/50	13-1/46		
FORD										
		G	TC II	TS-H683		TC (	TC (	TC (		
	Mondeo (3/93-11/00)		IS-H1703	TS-H683	TS-1785*	IS-1776	IS-1756	IS-1746		UD-M172 UD-M172*
			TS-H1703	TS-H177 TS-H682		TS-1776	TS-1756	TS-1746		UD-M172 UD-M172*
	Mondeo (12/00-)	A		TS-H683	13 1/05					00 M1/2
	Galaxy (9/95-)			TS-H683		TS-1776	TS-1756	TS-1746		
	, 4,73	A			TS-1785					
		G			TS-1785					
HONDA				TS-H107		TS-1376		TS-1346 TS-1046		
HYUNDAI	Pony 3-/5-door (1/90-9/94)	В					TS-1056	TS-1046		
	Pony (Excel) 4-door (1/90-9/94)	B	IS-H1303	IS-H137		15-1376	TS-1356 TS-1056	TS-1346 TS-1046		
	S.coupá (1/00-12/04)	С	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	Sonata (5/88-8/93)	В		15 11107			TS-1056	TS-1046		
	Punto (pi/py)   B									
JAGUAR		A								
LADA			TS-H1303	TS-H137		TS-1376				
	Samara 5-door (1/88-12/99)		TS-H1303							
LANCIA		E		TS-H137			TS-1356	TS-1346		
LANCIA	Delta (7/93-6/00)	С		15-H107			TS-1756	TS-1046		
		C	TS-H1702	TS-H177	TS-1785	TS-1776				
		A	.5 111/03		TS-1785					
			TS-H1703 (1)							
		A			TS-1785 (1)					UD-M171*
		F	13-111/03"	13-111//"	TS-1785	13-1//0				UD-M171
	Phedra (10/02-)				TS-1785 (1)		TS-1756	TS-1746		
MAZDA	323 4-/5-door (8/98-)	A		TS-H683	,-,(-)					
	323 3-door (6/97-) 626 4-door (1/92-9/98)	A		TS-H683 TS-H683						
	626 5-door (1/92-9/98)	C A		TS-H683 TS-H683						
		E		TS-H683						
	626 (10/98-)	A G		TS-H683 TS-H683						
MERCEDES	190/190 E (W201) (1/83-5/93)	В	TS-H1703 (1)	TS-H107		TC	TS-1056	TS-1046		IID MaM2
	A-series (9/97-)	A A		TS-H <sub>177</sub>	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M175MB UD-M175MB UD-M135MB
	S/SE/SEL (W126) (1/80-2/91)	G B	TS-H1303 (1)	TS-H137 TS-H467		TS-1376 TS-4638	TS-1356 TS-4628	TS-1346 TS-4621		UD-M135MB
	Vito (3/96-)	В		TS-H107		15 4030	TS-1056	TS-1046		
MITSUBISHI	V-series (3/96-) Galant 4-/5-door (1/96-)	B A	TS-H1303	TS-H107 TS-H137		TS-1376	TS-1056 TS-1356	TS-1046 TS-1346		
	Spacestar (1/98-)	G	,.			TS-1376	TS-1356	TS-1346	1	

Location: A: Front Door B: Dual Dash C: Rear Deck D: Kick Panel E: Rear Side Shelf F: Rear Seat Side G: Rear Door H: Rear Pillar I: Hatch Door J: Rear Panel K: Rear Ceiling

(1) Tweeter fits original location, (2) Need to make 2 screw holes on the original speaker location, (3) original 13 cm speaker adaptor required, (4) original 17 cm adaptor required, (5) original 17 cm speaker location required, (6) High range unit fits original location, (7) Front door pocket with 17 cm speaker location required, (8) rear door pocket with 17 cm speaker location required, (9) drill holes to fix the speaker, (10) 5-door, (11) In case original speaker places are provided (12) Modify speaker frame, (13) Steel cut or some modification.

All mounting proposals and measurements contained in this guide have been checked. However, due to continual modification of certain car models, we cannot guarantee the complete accuracy of all statements, technical information and recommendations. For that reason, a thorough inspection of the mounting area should be made before proceeding with installation.

# custom-fit speaker application chart



CAR Brand	Model & Introduction Date	LOCATION	HIGH GRADE SEPARATE COMPONENT	HIGH GRADE CO-AXIAL	SEPARATE COMPONENT	3-Way	2-Way	DUAL CONE	SPEAKER INTERFACE KITS	SPEAKER ADAPTOR PLATES
NISSAN	Maxima (1/92-)	A				TS-4638	TS-4628	TS-4621		
	Primera exc. L 4-door (9/90-8/01)	C	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
	Sunny L/LX 3-door (1/91-8/95)	A			13-1/05	TS-4638	TS-4628	TS-4621		
	Sunny SLX 3-door (1/91-8/95)	A				TS-4638	TS-4628	TS-4621		
	Sunny L/LX 4-door (1/91-8/95) Sunny SLX 4-door (1/91-8/95)	A				TS-4638	TS-4628	TS-4621		
	Suilily SLX 4-4001 (1/91-8/95)	A C	TS-H1703	TS-H177		TS-4638 TS-1776	TS-4628 TS-1756	TS-4621 TS-1746		
	Sunny SLX 4-door (1/91-8/95)	Č	13 112/05	13 112//	TS-1785	15 1//0	13 1/30	13 1/40		
	Sunny L/LX 5-door (1/91-8/95)	A				TS-4638	TS-4628	TS-4621		
	Sunny SLX 5-door (1/91-8/95) Sunny Wagon LX (1/91-8/95)	A				TS-4638 TS-4638	TS-4628 TS-4628	TS-4621 TS-4621		
	Nissan Wagon SLX (1/91-8/95)	Ä				TS-4638	TS-4628	TS-4621		
	100 NX (2/91-12/96)	A				TS-4638	TS-4628	TS-4621		
	100 NX Gti (2/91-12/96)	A				TS-4638	TS-4628	TS-4621		
	200 SX (9/88-3/94) 300 ZX (9/89-6/97)	A E		TS-H467		TS-4638 TS-4638	TS-4628 TS-4628	TS-4621 TS-4621		
OPEL/VAUXHALL	Astra 3-/5-door (9/91-9/97)	E	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	Astra 4-door (6/92-9/97)	С	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		
	Astrono de con (co (co )	C	TC U (-)	TC III	TS-1785	TC/	TC/	TC		UD MCOD
	Astra 3-door (10/97-)	A A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746	AD-EU8ooS	UD-M1760P UD-M1760P
		F	TS-H1703	TS-H177	13 1/05 (1)	TS-1776	TS-1756	TS-1746	AD E00003	00 MI/001
		F		,,	TS-1785				AD-EU8ooS	
	Frontera (6/91-)	F	TC U	TC U		TS-4638	TS-4628	TS-4621		UD M(02
	Omega (4/94-)	A A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	UD-M1760P UD-M1760P
	Tigra (11/95-)	A					TS-1756	TS-1746		
		A	1	TC	TS-1785				AD-EU8ooS	
	Vectra (9/95-2/02)	A A	TS-H1303	TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS*	UD-M1760P
		A	+		TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	UD-M1760P
	Vectra (3/02-)	A	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		UD-M1760P
		A			TS-1785				AD-EU800S	UD-M1760P
Zafira (3/99-)		G	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	UD-M1760P UD-M1760P
	Zafira (3/99-)	A			13-1/05	TS-1776	TS-1756	TS-1746	AD-LUGUUS	UD-M1760P
	9.77	A			TS-1785					UD-M1760P
		G	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		UD-M131
	Agila (2/01-)	B K					TS-1056 TS-1056	TS-1046 TS-1046		
PEUGEOT	106 XR/XN 3-door (9/91-)	A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	106 XT/XSI 3-door (9/91-)	A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
		F	TC III	TS-H107		TC/	TS-1056	TS-1046		
	106 5-door (9/92-)	A G	TS-H1303 TS-H1303	TS-H137 TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	205 3-/5-door (9/83-7/98)	A	TS-H1303	TS-H137		5/-	TS-1356	TS-1346		
		Н					TS-1356	TS-1346		
	206 Series (8/98-)	A	TS-H1704 (1)		TC 4=0=	TS-1776	TS-1756	TS-1746		
		A F	TS-H1303	TS-H137	TS-1785	TS-1376	TS-1356	TS-1346		
	306 XN/XS/XT (8/93-2/01)	A				TS-1776	TS-1756	TS-1746		
		A			TS-1785					
	307 (03/01-)	A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746	-	UD-M171 UD-M171
		G	TS-H1303	TS-H137	13-1/05 (1)	TS-1376	TS-1356	TS-1346	+	0D-W1/1
	309 3-/5-door (11/85-7/93)	A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	((10, 1, 1)	Н	70.11	TC !!		TC (	TS-1356	TS-1346		
	405 (6/87-5/92)	A A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
	405 (6/92-5/95)	A	TS-H1703	TS-H177	13-1/05		TS-1756	TS-1746		UD-M171
		A			TS-1785					UD-M171
	406 (6/95-)	A	TS-H1703 (1)	TS-H177	TC 4=0- (-)	TS-1776	TS-1756	TS-1746		
	406 Coupé (6/96-)	A A	TS-H1703(1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746	<del> </del>	
	4	Ä			TS-1785(1)		, , , ,	1.2.7.40		
	605 (9/89-9/99)	A	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		
		A G	TS.H1702	TS_H477	TS-1785		TS.1754	TS-1744	-	UD-M171
		G	TS-H1703	TS-H177	TS-1785		TS-1756	TS-1746	+	UD-M171
	806 (3/94-9/02)	A	TS-H1703 (1)	TS-H177		TS-1776	TS-1756	TS-1746		,.
		A			TS-1785 (1)					
		F F	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746	+	UD-M171 UD-M171
	807 (10/02-)	A					TS-1756	TS-1746		00-m1/1
		A			TS-1785 (1)					
	Partner (10/97-9/02)	В		TS-H107			TS-1056	TS-1046		
	Partner (10/02-)	B B	+		TS-1785 (1)		TS-1756	TS-1746	1	
RENAULT	Clio (5/90-2/98)	В			13 1/05 (1)		TS-1056	TS-1046		
		E		TS-H107			TS-1056	TS-1046		
	Clio II 3-door (3/98-)	A	TS-H1303	TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS*	
	Clio II exc. RXE 5-door (3/98-)	F A	TS-H1303 TS-H1303	TS-H137 TS-H137		TS-1376 TS-1376*	TS-1356 TS-1356*	TS-1346 TS-1346*	AD-EU8ooS*	
	Clio II exc. RXE 5-door (3/98-)	A	TS-H1303	TS-H137 TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU800S*	
		G	TS-H1303	TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS*	
	Twingo II (10/98-)	В		TS-H107			TS-1056	TS-1046	AD-EU8ooS	ue ··
	19 RL/RN (4/92-8/95)	В	TC Henna	TC Hear		TC_+=-	TS-1056	TS-1046	AD-EU8ooS	UD-M101
	19 exc. RL/RN (4/92-8/95)	E A	TS-H1303 TS-H1703	TS-H137 TS-H177		TS-1376 TS-1776	TS-1356 TS-1756	TS-1346 TS-1746	+	
	19 CAC. RE/RIT (4/92-0/95)	A	13 111/03	13 111//	TS-1785	15 1//0	13 1/50	13-1/40	AD-EU8ooS	
		В					TS-1056	TS-1046	AD-EU800S	UD-M101
		E	TS-H1303	TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS*	

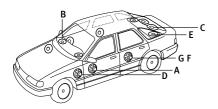
CAR Brand	MODEL & INTRODUCTION DATE	Location	HIGH GRADE SEPARATE COMPONENT	HIGH GRADE CO-AXIAL	SEPARATE COMPONENT	3-Way	2-Way	DUAL CONE	SPEAKER INTERFACE KITS	SPEAKER ADAPTOR PLATES
RENAULT	19 Chamade exc. RL/LN (4/92-8/95)	A	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		
		A B			TS-1785		TS-1056	TS-1046	AD-EU8ooS AD-EU8ooS	UD-M101
	19 Chamade RL/RN (4/92-8/95)	В		TS-H107			TS-1056	TS-1046	AD-EU8ooS	UD-M101
	19 Cabrio (4/92-4/97)	A	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
		В			,.,		TS-1056	TS-1046	AD-EU8ooS	UD-M101
	Mégane RL/RN 5-door (9/95-9/02)	F A	TS-H1303 (1)				TS-1056 TS-1356*	TS-1046 TS-1346*	AD-EU8ooS*	
		E	TS-H1303	TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS*	
	Mégane RT 5-door (9/95-9/02)	A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
		E	TS-H1303	TS-H137		TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS*	
	Mégane 5-door (10/02-)	A G	TS-H1303 (12/13) TS-H1303 (12/13)	TS-H137 (12/13)		TS-1376 (12/13) TS-1376 (12/13)	TS-1356 (12/13) TS-1356 (12/13)	TS-1346 (12/13) TS-1346 (12/13)	AD-EU8ooS	
	Mégane Classic (9/95-)	A	TS-H1703 (1)	TS-H177	TC 0 ()	TS-1776	TS-1756	TS-1746	AD FILE C	
		A C	TS-H1303 (3)	TS-H137 (3)	TS-1785 (1)	TS-1376 (3)*	TS-1356 (3)*	TS-1346 (3)*	AD-EU8ooS AD-EU8ooS*	
	Mégane Coupé (9/95-)	A	TS-H1703 (1)	TS-H177	TC 4=0= (4)	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
		A C	TS-H1303	TS-H137	TS-1785 (1)	TS-1376*	TS-1356*	TS-1346*	AD-EU800S*	
	Mégane Scénic (10/96-)	A	TS-H1303 (1)	TS-H137	TC 400, (4)	TS-1376*	TS-1356*	TS-1346*	AD-EU8ooS* AD-EU8ooS	
		E	TS-H1303	TS-H137	TS-1384 (1)	TS-1376*	TS-1356*	TS-1346*	AD-EU800S*	
	Mégane Break (6/99-)	E A	TS-H1303 (1)	TS-H137	TS-1384	TS-1376	TS-1356	TS-1346	AD-EU8ooS	
	megane bleak (0/99°)	A	13-11303 (1)		TS-1384(1)	13-13/0	13-1350			
	Lagrana (4/a), a (aa)	K	TC Harron (s)	TS-H107		TC 4mm/	TS-1056	TS-1046		
	Laguna (1/94-9/99)	A	TS-H1703 (1)	TS-H <sub>177</sub>	TS-1785 (1)	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
		E E	TS-H1703 (4)	TS-H177 (4)	TS-1785 (4)	TS-1776 (4)	TS-1756 (4)	TS-1746 (4)	AD-EU8ooS	
	Laguna Break (9/95-9/99)	A	TS-H1703 (1)	TS-H177	13-1/05 (4)	TS-1776	TS-1756	TS-1746	AD-EU0003	
		A K			TS-1785 (1)		TS-1056	TS-1046		
	Laguna series (10/99-)	A	TS-H1303 (12)	TS-H137 (12)		TS-1376 (12)	TS-1356 (12)	TS-1346 (12)		
	Safrano (2/02.40/04)	G	TS-H1303 (12)	TS-H137 (12)		TS-1376 (12)	TS-1356 (12)	TS-1346 (12)		
	Safrane (3/92-10/01)	A	TS-H1703 (1)	TS-H <sub>177</sub>	TS-1785 (1)	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
		G	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
	Kangoo (9/97-)	В		TS-H107	13-1/05		TS-1056	TS-1046	AD-EU800S	
	Vangae Euryees (o (o v	E B		TS-H107			TS-1056	TS-1046	AD-EU8ooS AD-EU8ooS	
	Kangoo Express (9/97-) Espace (5/91-1/97)	В	TS-H1703 (1)	TS-H107 TS-H177		TS-1776	TS-1056 TS-1756	TS-1046 TS-1746	AD-EU800S	
		B H	TS-H1703	TS-H177	TS-1785 (1)	TC 4776	TS-1756	TC 47/6	AD-EU8ooS	
		H	13-111/03		TS-1785 (1)	TS-1776		TS-1746	AD-EU8ooS	
ROVER	100 (Metro)-series 3-door (6/90-12/98) 100 (Metro)-series 5-door (6/90-12/98)	E E		TS-H107 TS-H107			TS-1056 TS-1056	TS-1046 TS-1046		
	214/216 5-door (1/90-9/95)	A	TS-H1703 (1)	TS-H <sub>177</sub>			TS-1756	TS-1746		
		A E	TS-H1303	TS-H137	TS-1785(1)	TS-1376	TS-1356	TS-1346		
	214/216 series (10/95-9/95)	E	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	216 Gti 3-door (7/90-9/95)	A	TS-H1703	TS-H177	TS-1785		TS-1756	TS-1746		
		E	TS-H1303	TS-H137	.5 2/0)	TS-1376	TS-1356	TS-1346		
	414/416-series (4/90-1/96)	A	TS-H1703	TS-H177			TS-1756 TS-1785	TS-1746		
SAAB	900 (9/93-8/97)	В		TS-H871			TS-876	TS-874		
SEAT	9000 CS (10/84-9/97) Arosa (10/97-)	B A	TS-H1710 (1)	TS-H107 TS-H177		TS-1776	TS-1056 TS-1756	TS-1046 TS-1746		UD-M177VW
	74054 (20/5/)	A	TS-H1703		TS-1785	15 1//0				UD-M177VW
	Cordoba (10/93-10/99)	B A	TS-H1710 (1)	TS-H107 TS-H177		TS-1776	TS-1056 TS-1756	TS-1046 TS-1746		
	20/4054 (10/75) 10/75)	A	TS-H1703		TS-1785	15 1// 0			AD-EU8ooS	
		B C		TS-H107		TS-4638	TS-1056 TS-4628	TS-1046 TS-4621	AD-EU8ooS	
	Ibiza GL/Junior 3-/5-door (1/89-4/93)	E		TS-H467		TS-4638	TS-4628	TS-4621		
	Ibiza 3-door (1/89-4/93)	A	TS-H1303	TS-H137 TS-H107		TS-1376	TS-1356 TS-1056	TS-1346 TS-1046		
		E		TS-H467		TS-4638	TS-4628	TS-4621		
	Ibiza 5-door (1/89-4/93)	A	TS-H1303	TS-H137 TS-H107		TS-1376	TS-1356 TS-1056	TS-1346 TS-1046		
		E		TS-H467		TS-4638	TS-4628	TS-4621		
	Ibiza (4/93-5/99)	A	TS-H1710 (1) TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
		В	13 112/05	TS-H107	13 2/03		TS-1056	TS-1046	AD-EU8ooS	
	Ibiza 3-door (1/02-)	E A	TS-H1703 (1)	TS-H467 TS-H177		TS-4638 TS-1776	TS-4628 TS-1756	TS-4621 TS-1746	AD-EU8ooS	UD-M177VW
		A			TS-1785(1)					UD-M177VW
	Ibiza 5-door (1/02-)	A	TS-H1703 (1)	TS-H177	TS-1785(1)	TS-1776	TS-1756	TS-1746		UD-M177VW UD-M177VW
		G	TS-H1703 (1)	TS-H177		TS-1776	TS-1756	TS-1746		UD-M174VW
	Leon (9/99-)	G A	TS-H1703	TS-H177	TS-1785(1)	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
	*****	A			TS-1785					UD-M174VW
		G G	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
	Toledo (5/91-9/98)	В		TS-H871	. , . ,	TC ( o	TS-876	TS-874		,,
	Toledo (10/98-)	E A	TS-H1703 (1)	TS-H467 TS-H177		TS-4638 TS-1776	TS-4628 TS-1756	TS-4621 TS-1746		UD-M174VW
		A			TS-1785 (1)					UD-M174VW
		G	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
	Alhambra (9/95-)	A				TS-1776	TS-1756	TS-1746		
		A G			TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
SKODA	51: (/ )	G			TS-1785				AD-EU8ooS	
	Fabia (9/99-)	A	1			TS-1776	TS-1756	TS-1746		UD-M177VW

Location: A: Front Door B: Dual Dash C: Rear Deck D: Kick Panel E: Rear Side Shelf F: Rear Seat Side G: Rear Door H: Rear Pillar I: Hatch Door J: Rear Panel K: Rear Ceiling

(1) Tweeter fits original location, (2) Need to make 2 screw holes on the original speaker location, (3) original 13 cm speaker adaptor required, (4) original 17 cm adaptor required, (5) original 17 cm speaker location required, (6) High range unit fits original location, (7) Front door pocket with 17 cm speaker location required, (8) rear door pocket with 17 cm speaker location required, (9) drill holes to fix the speaker, (10) 5-door, (11) In case original speaker places are provided (12) Modify speaker frame, (13) Steel cut or some modification.

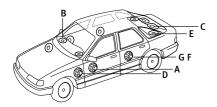
All mounting proposals and measurements contained in this guide have been checked. However, due to continual modification of certain car models, we cannot guarantee the complete accuracy of all statements, technical information and recommendations. For that reason, a thorough inspection of the mounting area should be made before proceeding with installation.

# custom-fit speaker application chart



CAR Brand	MODEL & INTRODUCTION DATE	LOCATION	HIGH GRADE SEPARATE COMPONENT	HIGH GRADE CO-AXIAL	SEPARATE COMPONENT	3-Way	2-Way	DUAL CONE	SPEAKER INTERFACE KITS	SPEAKER ADAPTOR PLATES
SKODA	Fabia (9/99-)	A	TC 11	TC !!	TS-1785 (1)	TC/	TC	TC/		UD-M177VW
	Felicia (10/94-)	E A	TS-H1303	TS-H137		TS-1376 TS-1376	TS-1356 TS-1356	TS-1346 TS-1346		
	relied (20/94)	C	TS-H1703 (11)	TS-H177 (11)		15 15/0	TS-1756 (11)	TS-1746 (11)		
	Octavia 5-door (9/96-)	C			TS-1785 (11)		TC 4756	TC 4716		
	Octavia 5-door (9/96-)	A			TS-1785		TS-1756	TS-1746		
		E			, ,		TS-1356	TS-1346		
	Octavia Break (9/96-)	A			TS-1785		TS-1756	TS-1746		
		E			13-1/05	TS-4638	TS-4628	TS-4621		
TOYOTA	Yaris (01/99-)	A	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		UD-M171
SUBARU SUZUKI	Vivio (3/92-12/00) Swift Cabrio (1/92-12/00)	B B		TS-H107			TS-1056 TS-1056	TS-1046 TS-1046		
JUZUKI	Swift 3-door (12/91-12/00)	В		TS-H107			TS-1056	TS-1046		
	Swift 4-/5-door (12/91-12/00)	В		TS-H107			TS-1056	TS-1046		
VOLVO	Vitara 3-door (2/91-12/96)	В	TC III	TS-H107		TC(	TS-1056	TS-1046		
VOLVO	S40 (9/95-)	A B	TS-H1303	TS-H137 TS-H107		TS-1376	TS-1356 TS-1056	TS-1346 TS-1046		
		C	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	V40 (9/95-)	A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
		B H	TS.H1202	TS-H107			TS-1056 TS-1356	TS-1046		
	440 (10/94-8/95)	A	TS-H1303 TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346 TS-1346		
	850/Wagon (10/91-12/96)	A	TS-H1303	TS-H137		TS-1376	TS-1356	TS-1346		
	010/060 (10/00 15/1-7)	В					TS-876	TS-874		
	940/960 (10/90-12/96)	A G	+			-	TS-1356 TS-1356	TS-1346 TS-1346		-
vw	Corrado (10/88-12/95)	В		TS-H107			TS-1056	TS-1046	AD-EU8ooS	
		E				TS-4638	TS-4628	TS-4621	AD-EU8ooS	
	Golf II 3/5-door (8/83-10/91)	В		TS-H871		TC - / - 0	TS-876	TS-874		
	Golf Variant CL (9/93-9/99)	E A	TS-H1710 (1)	TS-H467 TS-H177		TS-4638 TS-1776	TS-4628 TS-1756	TS-4621 TS-1746		<del>                                     </del>
	0011 Variant CE (9/93 9/99)	Ä	TS-H1703	13 111//	TS-1785	15 1//0	13 1/50	13 1/40	AD-EU8ooS	
		В		TS-H107			TS-1056	TS-1046	AD-EU8ooS	
		G	TS-H1703	TS-H177	TC0-	TS-1776	TS-1756	TS-1746		
	Golf III 3-door (11/91-9/97)	G A	TS-H1710 (1)(7)	TS-H177 (7)	TS-1785	TS-1776 (7)	TS-1756 (7)	TS-1746 (7)		
	3011 11 3 4001 (11/91 9/9/)	A	TS-H1703 (7)		TS-1785 (7)	13 1/70 (/)				
		В		TS-H107			TS-1056	TS-1046		
	Golf III 5-door (11/91-9/97)	A	TS-H1710 (1)(7) TS-H1703 (7)	TS-H177 (7)	TS-1785 (7)	TS-1776 (7)	TS-1756 (7)	TS-1746 (7)		
		B	13-111/03 (/)	TS-H107	13-1/05 (/)		TS-1056	TS-1046		
		G	TS-H1703 (2)(5)	TS-H <sub>177</sub> (2)(5)		TS-1776 (2)(5)	TS-1756 (2)(5)	TS-1746(2) (5)		
	V + ( / 2)	G	TC II ()	TC 11	TS-1785 (2)(5)	TC (	TC (	TC (		
	Vento (1/92-9/98)	A	TS-H1710 (1) TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		
		B	13-111/03	TS-H107	13-1/65		TS-1056	TS-1046		
		G	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		
	C-161V - d(/)	G	TC 11 (-)	TC III	TS-1785	TC(	TC/	TC (		UD M VAN
	Golf IV 3-door (10/97-)	A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
	Golf IV 5-door (10/97-)	Ä	TS-H1703 (1)	TS-H177	13 1/05 (1)	TS-1776	TS-1756	TS-1746		UD-M174VW
		A			TS-1785 (1)					UD-M174VW
		G	TS-H1703 (1)	TS-H177	TC 4705 (4)	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
	Bora (10/98-)	A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M174VW
		A			TS-1785 (1)	,,,	,,,	7,1		UD-M174VW
		G	TS-H1703 (1)	TS-H177	()	TS-1776	TS-1756	TS-1746		UD-M174VW
	Lupo (10/98-)	G A	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M177VW
	Ευρο (10/90 )	A	13 111/03 (1)	13111//	TS-1785(1)	15 1//0	13 1/30	13 1/40		UD-M177VW
	Passat 4-door (4/88-8/93)	В		TS-H107	, , , , , ,		TS-1056	TS-1046		,,
	Passat Variant (4/88-8/93)	B E		TS-H107		TC (600	TS-1056	TS-1046		
	Passat CL (9/93-8/96)	B	+	TS-H107		TS-4638	TS-4628 TS-1056	TS-4621 TS-1046	AD-EU8ooS	<u> </u>
	Passat Variant CL (9/93-8/96)	В		TS-H107			TS-1056	TS-1046	AD-EU8ooS	
	Passat (9/96-)	A	TS-H1703 (1)	TS-H177	TC ( )	TS-1776	TS-1756	TS-1746		UD-M174VW
		A G	TS-H1703 (1)	TS-H177	TS-1785 (1)	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
		G	13-111/03 (1)	13-01//	TS-1785 (1)	13-1//0	13-1/50	13-1/40		UD-M174VW UD-M174VW
	Polo 3-door + Coupé (10/90-9/94)	E		TS-H467	, , , , ,	TS-4638	TS-4628	TS-4621		
	Polo 3-door (10/94-9/99)	A	TS-H1703* (7)	TS-H177* (7)	TC :=0: ( )	TS-1776 (7)	TS-1756 (7)	TS-1746 (7)		UD-M171*
		A B	TS-H1710* (1)(7)	TS-H107	TS-1785 (7)	-	TS-1056	TS-1046		UD-M171*
	Polo Classic (1/96-9/99)	A	TS-H1703* (7) TS-H1710* (1)(7)	TS-H107 TS-H177* (7)		TS-1776 (7)	TS-1756 (7)	TS-1746 (7)		UD-M171*
		A	TS-H1710* (1)(7)		TS-1785 (7)					UD-M171*
		B	+	TS-H107 TS-H467		TS-4638	TS-1056 TS-4628	TS-1046 TS-4621		-
	Polo 5-door (10/99-8/01)	A	TS-H1703*	TS-H467 TS-H177*		TS-4638 TS-1776	TS-4628 TS-1756	TS-4621 TS-1746		UD-M171*
		A				TS-1785				
	Polo (9/01-)	A	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746		UD-M174VW
		A G	TS-H1703	TS-H177	TS-1785	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
		G	13-11/03	13-01//	TS-1785	13-1//0	13-1/50	13-1/40		UD-M174VW UD-M174VW
	Sharan (9/95-)	A				TS-1776	TS-1756	TS-1746		/ /
		A			TS-1785	TC/	TC/	TC/	AD-EU8ooS	
		G	+		TS-1785	TS-1776	TS-1756	TS-1746	AD-EU8ooS	
	Beetle (10/98-)	A	TS-H1703	TS-H177		TS-1776	TS-1756	TS-1746	7.5 200003	UD-M174VW
		A			TS-1785					UD-M174VW
		F	TS-H1703	TS-H177	TC0-	TS-1776	TS-1756	TS-1746		UD-M174VW UD-M174VW
		F	1		TS-1785	1	1	I .	I	. UU-M17//VW

# universal speaker application chart for original speaker location



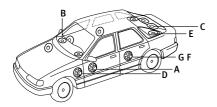
CAR Brand	MODEL & INTRODUCTION DATE	Location	EUR REF. SEPARATE COMPO SERIES	E-MOTION REFERENCE COMPO SERIES	E-MOTION 3-WAY SERIES	E-Motion 2-way Series	A-CCELERATE SEPARATE COMPO SERIES	4-Way	A-CCELERATE 3-WAY	A-CCELERATE 2-WAY	G-SERIES 2-WAY	G-SERIES DUAL CONE	SPEAKER INTERFACE KITS	SPEAKER ADAPTOR PLATES
ALFA ROMEO	Alfa 145 (9/94-4/01)	A	TS-C1700R*(1)	TS-E175C*(1)		TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716		* UD-M171
		F	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	Alfa 146 (9/95-4/01)	A	TS-C1700R*(1)	TS-E175C*(1)		TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716		* UD-M171
	Alfa 155 (3/92-9/97)	G C	TS-C1700R	TS-E175C			TS-A171C				TS-G1746 TS-G1746	TS-G1716 TS-G1716		UD-M171
	Alfa 156 (9/97-)	Ä	TS-C1700R*	TS-E175C*	TS-E1795*	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		* UD-M171
		G	TS-C1700R*	TS-E175C*	TS-E1795*	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		* UD-M171
	464 SUPON (2/22 2/29)	C A	TC CampoD	TS-E175C	TS-E6995		TS-A171C	TS-A6920	TS-A6910	TS-A6900	TS-G1746	TS-G1716		
	164-super (3/92-9/98)	C	TS-C1700R	13-61/50	TS-E6995		13-A1/1C	TS-A6920	TS-A6910	TS-A6900	13-01/40	13-01/10		
	166 (10/98-)	A								,	TS-G1746	TS-G1716		
		G	TC C D	TC 5 C	TC F	TC 5	70.4.6		TC A		TS-G1746	TS-G1716		
AUDI	A4 4-door (1/01-)	C A	TS-C1700R TS-C1700R	TS-E175C TS-E175C	TS-E1795 TS-E1795	TS-E1775 TS-E1775	TS-A171C TS-A171C		TS-A1710 TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716		UD-M174VW
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	744 0001 (1/01)	G	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M174VW
	A6 (3/97-)	A		- ' -		TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		
	TT ( (-0.)	G	TC CD	TC FC	TC F	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		
BMW	TT (10/98-) 3-series 2-door (10/85-1/92)	A D	TS-C1700R TS-C1300R	TS-E175C TS-E135C	TS-E1795	TS-E1775	TS-A171C TS-A131C		TS-A1710		TS-G1746	TS-G1716 TS-G1316		
	3 Touring (1/88-4/00)	D	TS-C1300R	TS-E135C			TS-A131C					TS-G1316		
		E				TS-E1075					TS-G1046	TS-G1016		
	3-series 4-door (12/90-2/98)	D D	TS-C1300R	TS-E135C			TS-A131C				TC C4046	TS-G1316		
	3-series coupé (1/92-1/99) 3-series compact (5/94 - 10/00)	D	TS-C1300R TS-C1300R	TS-E135C TS-E135C			TS-A131C TS-A131C				TS-G1346	TS-G1316 TS-G1316		
	5-series (1/88-6/95)	D	TS-C1300R	TS-E135C			TS-A131C					TS-G1316		
		С	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	5-series (7/95-)	D C	TS-C1300R TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C TS-A131C		TS-A1310 TS-A1310		TS-G1346	TS-G1316 TS-G1316		
	7-series (10/86-3/94)	D	TS-C1300R	TS-E135C TS-E135C	TS-E1395 TS-E1395	TS-E1375 TS-E1375	TS-A131C		TS-A1310		TS-G1346 TS-G1346	TS-G1316		
		C	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	MINI (10/00-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M177VW
CITROËN	AX series 3-door (8/91-9/96)	F F	TS-C1300R	TS-E135C		TS-E1375	TS-A131C			TS-A6900	TS-G1346	TS-G1316		
CITROLI	AX series 5-door (8/91-9/96)	A	13-C1300K	13-11350		13-L13/5	13-41310				TS-G1346	TS-G1316		
	BX (8/86-2/93)	A	TS-C1300R	TS-E135C			TS-A131C					TS-G1316		
	Saxo 3-door (10/96-9/01)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	Saxo 5-door (10/96-9/01)	A G	TS-C1300R TS-C1300R	TS-E135C TS-E135C	TS-E1395 TS-E1395	TS-E1375 TS-E1375	TS-A131C TS-A131C		TS-A1310 TS-A1310		TS-G1346 TS-G1346	TS-G1316 TS-G1316		
	Xantia (3/92-12/00)	A	TS-C1300R (1)		TS-E1795	TS-E1775	TS-A171C (1)		TS-A1310		TS-G1346	TS-G1310		
		G	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	XM 4-door (7/89-12/00)	A	TS-C1700R	TS-E175C			TS-A171C				TC C/	TS-G1716		
	XM Break (1/92-12/00)	E A	TS-C1700R	TS-E175C			TS-A171C				TS-G1346	TS-G1316 TS-G1716		
	7411 Break (1/92 12/00)	E	15 02/001	15 21/ 50			15712/10					TS-G1316		
	ZX Reflex Avantage (4/91-9/97)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	ZX Aura/Volcane (4/91-9/97)	A G	TS-C1300R TS-C1300R	TS-E135C	TS-E1395 TS-E1395	TS-E1375	TS-A131C TS-A131C		TS-A1310 TS-A1310		TS-G1346	TS-G1316 TS-G1316		
	ZX 3-door (10/92-9/97)	A	TS-C1300R	TS-E135C TS-E135C	TS-E1395	TS-E1375 TS-E1375	TS-A131C		TS-A1310		TS-G1346 TS-G1346	TS-G1316		
		F	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	ZX Break (1/94-2/98)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	Xsara (10/97-)	G A	TS-C1300R TS-C1700R (1)	TS-E135C TS-E175C (1)	TS-E1395 TS-E1795	TS-E1375 TS-E1775	TS-A131C TS-A171C (1)		TS-A1310 TS-A1710		TS-G1346 TS-G1746	TS-G1316 TS-G1716		
	Xsara 5-door (10/97-)	Ä		TS-E175C (1)	TS-E1795	TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716		
		G	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	Xsara Break (3/98-)	A G	TS-C1700R (1) TS-C1300R	TS-E175C (1)	TS-E1795	TS-E1775	TS-A171C (1) TS-A131C		TS-A1710 TS-A1310		TS-G1746 TS-G1346	TS-G1716		
	Xsara Coupé (10/98-)	A	TS-C1300R TS-C1700R (1)	TS-E135C TS-E175C (1)	TS-E1395 TS-E1795	TS-E1375 TS-E1775	TS-A131C (1)		TS-A1310		TS-G1746	TS-G1316 TS-G1716		
		F	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	Picasso (12/99-)	A	TS-C1700R (1)		TS-E1795	TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716		
		G	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1746 TS-G1346	TS-G1716 TS-G1316		
	Berlingo (10/96-9/02)	В	13-C1300K	13-11350	13-11395	TS-E1075	13-41310		13-11310		TS-G1346	TS-G1310		
	Berlingo (10/02-)	A				,,					TS-G1746	TS-G1716		
	Evasion (3/94-9/02)	A	TS-C1700R (1)	TS-E175C (1)	TS-E1795	TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716		4110.11
	C3 (09/01-)	F A	TS-C1700R *	TS-E175C*	TS-E1795*	TS-E1775 TS-E1775	TS-A171C* TS-A171C		TS-A1710* TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716		*UD-M171
	C5 (01/01-)	A	TS-C1700R (1)	TS-E175C (1)	TS-E1795	TS-E1//5	TS-A1/1C (1)		TS-A1/10		TS-G1746	TS-G1716		
		G	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		
DAEWOO	C8 (10/02-)	A	TC C	TC EC		TC F	TC 4		TC A		TS-G1746	TS-G1716		
FIAT	Tacuma (10/00-) Coupé (12/93-)	A A	TS-C1300R TS-C1700R	TS-E135C TS-E175C	TS-E1395 TS-E1395	TS-E1375 TS-E1775	TS-A131C TS-A171C		TS-A1310 TS-A1710		TS-G1346 TS-G1746			
	Punto (9/93-8/99)	E	.5 01/001	.5 21/50	.5 21393	TS-E1075	.5.11/10		.5.11/10		TS-G1046	TS-G1016		
	Punto 3-/5-door (9/99-)	A				TS-E1775 (2)					TS-G1746 (2)	TS-G1716 (2)		
	Tipo (2/88-8/95)	E				TS-E1075					TS-G1046			
	500 (4/92-9/98)	B B										TS-G1016 TS-G1016		
	Seicento / 600 (q/q7-)													+
	Seicento / 600 (9/97-) Ulysse (3/94-)	A		TS-E175C (1)	TS-E1795	TS-E1775	TS-A171C (1)		TS-A1710		TS-G1046	TS-G1716		
	Ulysse (3/94-)	A F		TS-E175C (1) TS-E175C*	TS-E1795 TS-E1795*	TS-E1775 TS-E1775	TS-A171C (1) TS-A171C*		TS-A1710 TS-A1710*		TS-G1746	TS-G1716		*UD-M171
		A				TS-E1775 TS-E1775								*UD-M171

Location: A: Front Door B: Dual Dash C: Rear Deck D: Kick Panel E: Rear Side Shelf F: Rear Seat Side G: Rear Door H: Rear Pillar I: Hatch Door J: Rear Panel K: Rear Ceiling

(1) Tweeter fits original location, (2) Need to make 2 screw holes on the original speaker location, (3) original 13 cm speaker adaptor required, (4) original 17 cm adaptor required, (5) original 17 cm speaker location required, (6) High range unit fits original location, (7) Front door pocket with 17 cm speaker location required, (8) rear door pocket with 17 cm speaker location required, (9) drill holes to fix the speaker, (10) 5-door, (11) In case original speaker places are provided (12) Modify speaker frame, (13) Steel cut or some modification.

All mounting proposals and measurements contained in this guide have been checked. However, due to continual modification of certain car models, we cannot guarantee the complete accuracy of all statements, technical information and recommendations. For that reason, a thorough inspection of the mounting area should be made before proceeding with installation.

# universal speaker application chart for original speaker location



CAR Brand	MODEL & INTRODUCTION DATE	Location	EUR REF. SEPARATE COMPO SERIES	E-MOTION REFERENCE COMPO SERIES	E-MOTION 3-WAY SERIES	2-WAY	A-CCELERATE SEPARATE COMPO SERIES	a-Ccelerate 4-Way	A-CCELERATE A 3-WAY	A-CCELERATE 2-Way	G-SERIES 2-WAY	G-SERIES DUAL CONE	SPEAKER INTERFACE KITS	SPEAKER ADAPTOR PLATES
FORD	Galaxy (9/95-)	G				TS-E1775*					TS-G1746	TS-G1716		*UD-M171
	Mondeo-series (3/93-11/00)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M172
HONDA	Legend 2-/4-door (10/91-12/96)	G A	TS-C1700R	TS-E175C	TS-E1795 TS-E1695	TS-E1775 TS-E1675	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M172
HYUNDAI	Pony 3+5-door (1/90-9/94)	Ä			13 11095	TS-E1075					TS-G1046	TS-G1016		
	Pony 4-door (Excel) (1/90-9/94)	A				TS-E1075					TS-G1046	TS-G1016		
LADA	Samara 3-door (1/86-12/99) Samara 5-door (1/88-12/99)	E E	TS-C1300R TS-C1300R	TS-E135C TS-E135C	TS-E1395 TS-E1395	TS-E1375	TS-A131C TS-A131C		TS-A1310 TS-A1310		TS-G1346	TS-G1316 TS-G1316		
	Diva/Sagona (8/91-12/99)	C	TS-C1300R	TS-E135C	TS-E1395	TS-E1375 TS-E1375	TS-A131C		TS-A1310		TS-G1346 TS-G1346	TS-G1316		
LANCIA	Dedra (6/89-4/99)	В			- 3,,	- 3//						TS-G1016		
	Delta (7/93-6/00)	C	TC C D	TO F C	TOF	TC 5	75.1.5		TC 1		TC C /	TS-G1716		
	Y (1/96-) Z (3/94-9/02)	A	TS-C1700R (1)	TS-E175C TS-E175C (1)	TS-E1795 TS-E1795	TS-E1775 TS-E1775	TS-A171C TS-A171C(1)		TS-A1710 TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716		
	2 (1)44 9102)	F	TS-C1700R *		TS-E1795*	TS-E1775	TS-A171C*		TS-A1710*		TS-G1746	TS-G1716		*UD-M171
	Phedra (10/02-)	В									TS-G1746	TS-G1716		
MERCEDES	190/190E (W201) (1/83-5/93) A-series (9/97-)	B A	TS-C1700R	TS-E175C	TS-E1795	TS-E1075 TS-E1775	TS-A171C		TS-A1710		TS-G1046 TS-G1746	TS-G1016 TS-G1716		UD-M175MB
	A-series (g/g/-)	G	TS-C1700R	TS-E135C	TS-E1795	TS-E1375	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M175MB
	Vito (3/96-)	В			- 3//	- 3//					TS-G1046	TS-G1016		33
ODEL MALIVILALI	V-series (3/96-)	В	TC C D	TO F C	TC 5	TO F	76.1.6		TC 4		TS-G1046	TS-G1016		
OPEL/VAUXHALL	Astra 3-/5-door (9/91-9/97) Astra 4-door (6/92- 9/97)	E C	TS-C1300R TS-C1700R	TS-E135C TS-E175C	TS-E1395 TS-E1795	TS-E1375 TS-E1775	TS-A131C TS-A171C		TS-A1310 TS-A1710		TS-G1346 TS-G1746	TS-G1316 TS-G1716		-
	75110 4 0001 (0/92 9/9/)	Č	13 01/0010		TS-E1695	TS-E1675	13 A1/10		13 /1/10		15 01/40	13 01/10		
	Astra series (10/97-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M1760P
	Astra 3-door (10/97-)	E	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU800S	
	Omega (4/94-) Tigra (11/95-)	A A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716 TS-G1716	AD-EU8ooS AD-EU8ooS	UD-M1760P
	Vectra/Cavalier 5 door (10/88-8/95)	E			TS-E1695	TS-E1675							AD-EU800S	
	Vectra (9/95-2/02)	A									TS-G1746	TS-G1716	AD-EU8ooS	UD-M1760P
	Vectra (3/02-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M1760P
	Agila (2/01-)	G B	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746 TS-G1046	TS-G1716 TS-G1016	AD-EU800S	UD-M1760P
	75.00 (2/01)	K									TS-G1046	TS-G1016		
PEUGEOT	106 XR/XN 3-door (9/91-)	A				TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	106 XT/XSI 3-door (9/91-)	F				TC F	TC A C		TC Average		TS-G1046	TS-G1016		
	106 5-door (9/92-)	A				TS-E1375 TS-E1375	TS-A131C TS-A131C		TS-A1310 TS-A1310		TS-G1346 TS-G1346	TS-G1316 TS-G1316		
	100 ) 4001 (9/92 )	G				TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	206 series (8/98-)	A				TS-E1775					TS-G1746	TS-G1716		
	(-/0/)	F, G H	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A171C		TS-A1310		TS-G1346	TS-G1316		
	205 3+5-door (9/83-7/97)	A				TS-E1375					TS-G1346	TS-G1316 TS-G1316		
	306 XS/XT (8/93-2/01)	A				TS-E1775					TS-G1746	TS-G1716		
	307 5-door (3/01-)	A	TS-C1700R (1)	TS-E175C (1)	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M171
	309 3+5-door (11/85-7/93)	G H										TS-G1316 TS-G1316		
	309 3+5-0001 (11/05-7/93)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	405 (6/87-5/92)	A	TS-C1700R*	TS-E175C*	TS-E1795*	TS-E1775	TS-A171C*		TS-A1710*		TS-G1746	TS-G1716		* UD-M171
	405 (6/92-5/95)	A	TS-C1700R	TS-E175C			TS-A171C					TS-G1716		* UD-M171
	406 (6/95-) 406 coupe (6/95-)	A A	TS-C1700R (1) TS-C1700R (1)	TS-E175C (1) TS-E175C (1)	TS-E1795 TS-E1795	TS-E1775 TS-E1775	TS-A171C (1) TS-A171C (1)		TS-A1710 TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716		
	605 (9/89-9/99)	Ä	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		
		G	TS-C1700R	TS-E175C			TS-A171C					TS-G1716		
	806 (3/94-9/02)	A	TS-C1700R (1)			TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716		4110.14
	807 (10/02-)	F A	TS-C1700R *	TS-E175C*	TS-E1795*	TS-E1775	TS-A171C*		TS-A1710*		TS-G1746 TS-G1746	TS-G1716 TS-G1716		*UD-M171
	Partner (10/96 -9/02)	B				TS-E1075					TS-G1046	TS-G1016		
	Partner (10/02-)	В									TS-G1746	TS-G1716		
RENAULT	Clio (5/90-2/98)	В				TC 5					TC C /	TS-G1016		
	Clio II 5-door except RXE (3/98-)	E A	TS-C1300R	TS-E135C	TS-E1395	TS-E1075 TS-E1375	TS-A131C		TS-A1310		TS-G1046 TS-G1346	TS-G1016 TS-G1316	AD-EU8ooS	
	Clio II 5-door RXE (3/98-)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316	AD-EU800S	
		G	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316	AD-EU8ooS	
	Clio II 3-door (3/98-)	A F	TS-C1300R TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C TS-A131C		TS-A1310		TS-G1346	TS-G1316	AD-EU800S	
	Safrane (3/92-10/01)	A	TS-C1300R TS-C1700R (1)	TS-E135C TS-E175C (1)	TS-E1395 TS-E1795	TS-E1375 TS-E1775	TS-A131C TS-A171C (1)		TS-A1310 TS-A1710		TS-G1346 TS-G1746	TS-G1316 TS-G1716	AD-EU8ooS	
	0,7	G	TS-C1700R		TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
	Twingo II (10/98-)	В				TS-E1075					TS-G1046	TS-G1016		
	Mégane 5-door RT (9/95-9/02)	A E		TS-E175C (1)		TS-E1775 TS-E1375	TS-A171C (1) TS-A131C		TS-A1710 TS-A1310		TS-G1746 TS-G1346		AD-EU800S AD-EU800S	
	Mégane 5-door RL/RN (9/95-9/02)	A	TS-C1300K	TS-E135C (1) TS-E135C (1)	13-51395	13-613/5	TS-A131C (1)		13-A1310		13-01340	TS-G1316	AD-EU800S	
	megane y 4001 Ne/NIT (9/93 9/02)	E	TS-C1300R		TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316	AD-EU8ooS	
	Mégane (10/02-)	A											AD-EU800S	
	Mágana Classic (o /or.)	G	TC-C1700D (1)	TS.E475C (4)	TC.E1705	TC.E4776	TS_A171C (1)		TC 1710			TS-G1316 (12/13		-
	Mégane Classic (9/95-)	A C	TS-C1/00K (1)	TS-E175C (1) TS-E135C (3)	TS-E1795 TS-E1395 (3)	TS-E1775 TS-E1375 (3)	TS-A171C (1) TS-A131C (3)		TS-A1710 TS-A1310 (3)		TS-G1346 (2)	TS-G1216 (2)	AD-EU800S AD-EU800S	
	Mégane coupé (9/95-)	A	TS-C1700R (1)	TS-E175C (1)	TS-E1795	TS-E1775	TS-A171C (1)		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
		E	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316	AD-EU800S	
	Mégane Scénic (10/96-)	A E	TS-C1300R (1) TS-C1300R	TS-E135C (1) TS-E135C	TS-E1395 TS-E1395	TS-E1375 TS-E1375	TS-A131C (1) TS-A131C		TS-A1310 TS-A1310		TS-G1346 TS-G1346	TS-G1316 TS-G1316	AD-EU8ooS AD-EU8ooS	
	Express (6/87-8/97)	B	13-C1300K	13-51356	13-51395	13-51375	13-M131C		13-M1310		TS-G1346 TS-G1046	TS-G1316 TS-G1016	VD-E08002	
	19 RL,RN (4/92-8/95)	В										TS-G1016	AD-EU800S	UD-M101
		E	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316	AD FILE	IID **
	19 (except RL,RN) (4/92-8/95)	B A				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1016 TS-G1716	AD-EU800S AD-EU800S	
		E	TS-C1300R	TS-E135C	TS-E1395	TS-E1775 TS-E1375	TS-A171C TS-A131C		TS-A1710 TS-A1310		TS-G1746 TS-G1346	TS-G1716 TS-G1316	MD-EU8003	
	19 Chamade (except RL,RN) (4/92-8/95)	В	.5 213001		.0 21393		.5.11510		.5.12320			TS-G1016	AD-EU800S	
		A				TS-E1775					TS-G1746	TS-G1716	AD-EU8ooS	
	19 Chamade RL,RN (4/92-8/95)	В					1					TS-G1016	AD-EU800S	
	19 Cabrio (4/92-4/97)	B A				TS-E1775					TS-G1746	TS-G1016 TS-G1716	AD-EU800S AD-EU800S	
		1 ^	1	1	I	12 11//5	1				12 31/40	12 01/10	UD F00003	1

CAR BRAND	Model & Introduction Date	Location	EUR REF. SEPARATE COMPO SERIES	E-MOTION REFERENCE COMPO SERIES	E-Motion 3-way Series	E-Motion 2-way Series	A-CCELERATE SEPARATE COMPO SERIES	4-WAY	A-CCELERATE 3-Way	A-CCELERATE 2-WAY	G-SERIES 2-Way	G-SERIES DUAL CONE	SPEAKER INTERFACE KITS	SPEAKER ADAPTOR PLATES
RENAULT	19 Cabrio (4/92-4/97)	F										TS-G1016		
	Laguna (1/94-9/99)	A				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
		E	TS-C1700R (4)	TS-E175C (4)	TS-E1795 (4)	TS-E1775 (4)			TS-A1710 (4)		TS-G1746 (4)	TS-G1716 (4)	AD-EU8ooS	
	Laguna Break (9/95-9/99)	A				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
		K				TS-E1075					TS-G1046	TS-G1016	AD-EU8ooS	
	Kangoo (9/97-)	В				TS-E1075					TS-G1046	TS-G1016	AD-EU8ooS	
	K(-/)	E				TS-E1075					TS-G1046	TS-G1016	AD-EU800S	
	Kangoo Express (9/97-)	B B	TC ( D (-)	TC FC (-)	TC F	TS-E1075 TS-E1775	TS-A171C(1)		TS-A1710		TS-G1046	TS-G1016 TS-G1716	AD-EU8ooS AD-EU8ooS	
	Espace (5/91-1/97)	H		TS-E175C (1) TS-E175C (1)	TS-E1795 TS-E1795	TS-E1775	TS-A1/1C(1)		TS-A1/10		TS-G1746 TS-G1746	TS-G1716	AD-EU800S	
ROVER	214/216 series (1/90-9/95)	A		TS-E1/5C (1)	13-61/95	13-61//5	TS-A1/1C(1)		13-A1/10		13-01/40	TS-G1716	AD-EU0003	
KOVLK	214/210 series (1/90-9/95)	F	TS-C1700R (1)	TS-E135C	TS-E1395	TS-E1375	TS-A171C(1)		TS-A1310		TS-G1346	TS-G1716		
	216 Gti 3-door (7/90-9/95)	Ā	TS-C1700R	TS-E175C	.5 22595	.5 215/5	TS-A171C		15712510		.5 01,40	TS-G1716		
		E	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	214/216 series (10/95-)	E	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	414/416 series (4/90-1/96)	A										TS-G1716		
SEAT	Arosa (10/97-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M177VW
	Cordoba (10/93-10/99)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
	Ibiza 3+5-door (1/89-4/93)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
		A				TS-E1075					TS-G1046	TS-G1016		
	Ibiza (4/93-5/99)	Α	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
	Ibiza 3-door (1/02-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M177VW
	Ibiza 5-door (1/02-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M177VW
	Talada (ca/a0 )	G	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M174VW
	Toledo (10/98-)	A G	TS-C1700R TS-C1700R	TS-E175C TS-E175C	TS-E1795 TS-E1795	TS-E1775 TS-E1775	TS-A171C TS-A171C		TS-A1710 TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716		UD-M174 VW UD-M174 VW
	Alhambra (9/95-)	A	15-C1700K	15-E175C	15-E1795	TS-E1775*	15-A1/1C		15-A1710		TS-G1746	TS-G1716	AD-EU8ooS	*UD-M174 VW
	Alliallibla (9/95-)	G				TS-E1775*					TS-G1746	TS-G1716	AD-EU800S	*UD-M171
SUBARU	Vivio (3/92-12/00)	В				13 21//5					TS-G1046	TS-G1016	AD EGGGGG	00 M1/1
SUZUKI	Swift cabrio (1/92-12/00)	В									TS-G1046	TS-G1016		
5020	5 Will Cabilo (1/92 12/00)	T i									TS-G1046	TS-G1016		
	Swift series (12/91-12/00)	В									TS-G1046	TS-G1016		
	Vitara 3-door (2/91-12/96)	В									TS-G1046	TS-G1016		
VOLVO	S40 (9/95-)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
		С	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
	V40 (9/95-)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		
		Н										TS-G1316		
	440 (10/94-8/95)	A	TS-C1300R	TS-E135C	TS-E1395	TS-E1375	TS-A131C		TS-A1310		TS-G1346	TS-G1316		ļ
VW	Lupo (10/98-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M177VW
	New Beetle (10/98-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M174 VW
	Golf III-series (11/91-9/97)	F A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775 TS-E1775	TS-A171C TS-A171C		TS-A1710 TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716		UD-M174 VW
	don in series (11/31-3/3/)	G				TS-E1775	TS-A1/1C		TS-A1/10		TS-G1746	TS-G1716		
	Golf Variant CL (9/93-9/99)	A				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU8ooS	
	55 Variant CE (9/95 9/99)	G				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	AD-EU800S	
	Golf IV-series (9/97-)	Ä	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716	1.5 200005	UD-M174 VW
		G	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710	İ	TS-G1746	TS-G1716		UD-M174 VW
	Bora (10/98-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710	ĺ	TS-G1746	TS-G1716		UD-M174 VW
		G	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M174 VW
	Vento (1/92-9/98)	A				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		
		G				TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		
	Passat series (9/96-)	A	TS-C1700R	TS-E175C	TS-E1795	TS-E1775	TS-A171C		TS-A1710		TS-G1746	TS-G1716		UD-M174 VW
		G									TS-G1746	TS-G1716		UD-M174 VW
	Polo Classic (1/96-9/99)	A	-			TS-E1775*	TS-A171C*		TS-A1710*		TS-G1746	TS-G1716	-	* UD-M171
	Polo 3-/5-door (10/94 -9/99)	A	TC C	TC F . C :		TS-E1775*	TS-A171C*		TS-A1710*		TS-G1746	TS-G1716		* UD-M171
	Polo 3-/5-door (10/99-8/01)	A	TS-C1700R *	TS-E175C *	TC Famo-	TS-E1775 *	TS-A171C*		TS-A1710*		TS-G1746	TS-G1716	-	* UD-M171 UD-M174 VW
	Polo (9/01-)	A G	TS-C1700R TS-C1700R	TS-E175C TS-E175C	TS-E1795 TS-E1795	TS-E1775 TS-E1775	TS-A171C TS-A171C		TS-A1710 TS-A1710		TS-G1746 TS-G1746	TS-G1716 TS-G1716	-	UD-M174 VW
	Sharan (9/95-)	A	13-C1/UUK	13-61/50	13-51/95	TS-E1775 *	15-M1/1C		13-41/10		TS-G1746	TS-G1716	AD-EU8ooS	* UD-M174 VW
	Silaran (9/95')	G	<del>                                     </del>			TS-E1//5 *			<u> </u>	<u> </u>	TS-G1746	TS-G1716	AD-EU800S	* UD-M171
		"	1			13-11//5				1	13-01/40	13-01/10	VD-F00002	0D-M1/1

Location: A: Front Door B: Dual Dash C: Rear Deck D: Kick Panel E: Rear Side Shelf F: Rear Seat Side G: Rear Door H: Rear Pillar I: Hatch Door J: Rear Panel K: Rear Ceiling

(1) Tweeter fits original location, (2) Need to make 2 screw holes on the original speaker location, (3) original 13 cm speaker adaptor required, (4) original 17 cm adaptor, (5) original 17 cm speaker location required, (6) High range unit fits original location, (7) Front door pocket with 17 cm speaker location required, (8) rear door pocket with 17 cm speaker location required, (9) drill holes to fix the speaker, (10) 5-door, (11) In case original speaker places are provided, (12) Modify speaker frame, (13) Steel cut or some modification.

All mounting proposals and measurements contained in this guide have been checked. However, due to continual modification of certain car models, we cannot guarantee the complete accuracy of all statements, technical information and recommendations. For that reason, a thorough inspection of the mounting area should be made before proceeding with installation.

# PRS Speakers Technical Parameters

TS-T3	TS-T3PRS							
Revc (Ω)	Levc (mH)							
6.5	0.03							

	TS-M7PRS											
Revc (Ω)	Levc (mH)	Fs (Hz)	Zmax (Ω)	Qms	Qes	Qts	Vas (cu ft/Liters)					
3.6	0.36	48	43	4.58	0.42	0.38	0.39/11.1					
Rms	Mms	Cms	BL	Sd	Hvc	Hag	Deplacement					
(NS/m)	(g)	(m/N)	(T m)	(sq in) (sq m)	(in) (mm)	(in) (mm)	(cu ft) (liters)					

	TS-W12PRS									
s	SEALED ENCLOSURE SERIES LOW "Q" SERIES SUBWOOFERS FOR SEALED BOX									
Revc (Ω)	Levc (mH) (8 Ω/2 Ω)	Zmax (Ω) (8 Ω/2 Ω)	Fs (Hz)	q	ms	Qes		Qts	Vas (cu ft) (Mers)m	Rms (NS/m)
dual 3.6	1.61 0.40	175 43.8	24	9	.00	0.41		0.39	3.3 93	2.3
Mms (g) (mm)	Cms (m/N) (sq m)	Diam (in) (8 Ω/2 Ω	n)	Sd (sq in) (mm)		BL (T m) (mm)		Xmax (in) (mm)	Hvc (in)	Hag (in)
135	3.15 X 10-4	9.5 241		70.9 0.0456		19.46 9.73		0.53 13.5	1.56 39.5	0.47 12.0
N	Model Cutout H		Cutout Hole			Mounting Dep	pth (mn	n/inch)	Recommended enclosure volumes (cu.ft/Liters)	
TS-V	V12PRS		Ø 278 (11 Dia	.)		133/	5.25			- 10 %) - 10 %)

	TS-C1300R	TS-C1700R
WOOFER		
Revc (Ω)	3.1	3.1
Levc (mH)	0.26	0.35
Fs (Hz)	74	67
Zmax (Ω)	25	21
Qms	4.67	4.16
Qes	0.66	0.71
Qts	0.58	0.61
Vas	0.18	0.34
(cu ft/Liters)	5.2	9.5
Rms (NS/m)	0.94	1.49
Mms (g)	9.5	14.8
Cms (m/N)	4.9E-04	3.83E-04
BL (T m)	4-53	5.20
Sd	13.37	20.51
(sq in/sq m)	8.63E-03	1.32E-02
Hvc	0.36	0.46
(in/mm)	9.2	11.6
Hag	0.24	0.24
(in/mm)	6	6
TWEETER		
Revc (Ω)	7.5	5-7
Levc (mH)	0.04	0.02

## **NAVIGATION**

POI (Point of Interest)

Pioneer's Navigation units have more than 700,000 POIs (Points of Interest) stored in memory. The driver can do a fast POI search by name or by category (destination search) to locate a particular point of interest.

TMC (Traffic Messanger Channel)
The Navigation unit's built-in TMC (Traffic Message Channel)
receiver keeps the driver updated on current traffic events and suggests alternative routes. Refer to maps on pages 11 and 12.

3-D Gyro Sensor
The 3-D Gyro Sensor allows the navigation system to take measurements in three directions, calculate inclines, and detect special road features

MERIAN <u>MERIAN Autoscout</u> Pioneer's Arrow-type navigation unit is compatible with Merian Autoscout travel guides

## **SOURCES**

## TV Tuner

PAL is the TV standard used in most of Western Europe.

 $\frac{\text{SECAM}}{\text{SECAM L}} \text{ is the TV standard used in France.}$ SECAM DK is used in Russia.

## **Radio Tuner**



ARC 5
The Automatic Reception Control system — used in all Pioneer headunits — increases sensitivity and improves FM reception.

**BSM (Best Stations Memory)**An ideal tuner feature for travelling. At the touch of a button, BSM scans the radio band, finds and automatically presets the 6 strongest stations.

D4Q D4Q is Pioneer's new digital AM/FM tuner. It uses a digital processing technique which times. processing technique which improves the audio performance and selectivity of the receiver, allowing users to enjoy high-quality radio without interference.

PNS (Pulse Noise Suppressor)

'Pulse Noise' is unwanted noise generated by electrical motors. It can come from the car's engine or through the antenna, even from another car. PNS provides a cleaner sound by reducing noise that interferes with the FM

Radio Intercept
Avoids lengthy silences by automatically switching to your radio source when the cassette deck is fast forwarding, rewinding, or in Auto Reverse.

Radio Text

By pressing the Radio Text button, text messages sent as RDS data are received. These messages scroll across the screen for convenient viewing, and can be stored in memory for review.

RDS
Pioneer has incorporated the "Non Interruption Philosophy" into the "Intelligent RDS Tuner" for improved network following (NF). Thanks to the sophisticated algorithms, the different programme alternative frequencies are screened out and continuous, uninterrupted listening pleasure is achieved.

## SOURCES (CONTINUED)

## **DAB Tuner**

<u>Built-in DAB Tuner</u> Pioneer's headunit DEH-PooDAB features a built-in DAB Tuner, which allows access to Digital Audio Broadcasting for distortion-free CD quality

## DVD

Dolby Digital
The current surround sound quality encoding standard,
Dolby Digital, means in-car movie theatre sound performance. The front
left and right, centre, rear left and right speakers span frequencies from
20 Hz – 20 kHz and there is a dedicated subwoofer channel for additional low frequency sound effects.

Digital format, Dolby Pro Logic
The forerunner to the increasingly popular Dolby
Digital format, Dolby Pro Logic Surround uses 5 speakers to create a
cinematic surround sound ambience. By decoding sound data contained in
Dolby Surround, it produces 4 disctinct outputs: front left, front right, centre and rear (2 speakers).

Dolby Digital Pro Logic II
DIGITAL
Dolby Digital Pro Logic II reproduces multi-channel surround sound from a variety of sound sources, to create the thrill of 5.1-channel surround sound even from 2-channel sources.

DTS 5.1-channel playback encoding technology is rapidly gaining popularity thanks to its dynamic sound impact.

DVD-Audio
The DVD-Audio format provides audio fidelity far superior to that of normal CDs. In addition to audio in stereo and multichannel surround sound, DVD-Audio discs can hold artist bios. background information, lyrics and liner notes.

DVD-Video
The latest in multimedia digital technology, DVD guarantees second-to-none picture quality. The ultra-sharp digital picture and surround sound bring impressive cinema into your car. Plus, DVD is

packed with useful features s.a. multiple languages, soundtracks and subtitles, support for various multi-channel audio encoding technologies such as DTS and Dolby Digital.

## CD

1-Bit D/A Converter Conversion of digital information as recorded into analogue signals that are then reproduced as the sound you hear. 1-Bit Conversion ensures a smooth sound without harshness.



<u>CD Text</u> CD Text allows various text information to be added to normal music CDs (usable with compact discs featuring CD Text).

CD-R/RW Compatibility
All Pioneer CD headunits can now playback CD-R/RW discs, allowing the user to enjoy favourite compilations in-car.

CD-R/RW Skip Play Allows to skip misrecorded tracks on a CD-R(W) disc. First set "Skip ID" on the CD-recorder unit — like Pioneer's PDR-W839 or PDR-609 — and your car CD player will not play that particular track, but skip to the next one on the disc.

ITS (Instant Track Selection)

Disc Title Memory
Enables the user to program an up to 10-digit descriptive title
to be displayed when that CD is selected. Up to 48 titles may
be entered with many Pioneer Single-CD units and up to 100 titles with

Pioneer Multi-CD Players

Gives the choice of programming any favourite CD track — for up to 24 tracks per disc. Selections are then played back utilising ADPS and the Program" button.

<u>Last Position Memory</u> <u>Last Position Memory automatically resumes CD play from the last point if there is interruption to CD play.</u>

Popular compression format that allows large amounts of audio files to be stored onto one CD-R/RW disc. Pioneer players come equipped with large buffering capabilities, which means they are all able to handle data rates from 16 kbps and VBR Variable Bit Rate

## **SOURCES** (CONTINUED)

Random Play
CD playback mode mixes the order of songs (and entire magazines, in the case of MCD Players), providing a different sequence each time.

WMA (Windows Media Audio<sup>TM</sup>)
WMA is a music compression format developed by the Microsoft Corporation. It uses the latest coding technologies to compress an original audio track, minimising file sizes while maintaining go

## **Cassette**

Blank Skip
Automatically skips over long portions of unrecorded tapes (at the end of one side, for example).

Dolby B
A noise reduction system used with most pre-recorded tapes. Pressing the Dolby B button improves the signal-to-noise ratio by greatly reducing background "hiss".

Full Logic Control
Full Logic cassette decks feature feather-touch, electronic
control buttons that make cassette operation easier. A
"Logic" system ensures that when you press "forward", the deck will

always move forward, regardless of which side of the tape is currently

Metal/7ο μs Tape Selector
Metal and chrome tapes require different equalisations
compared to standard bias tapes. Pioneer units feature either
an "Auto Metal" capability or a manual Metal button. Either feature

provides optimum playback equalisation on metal, chrome (70  $\mu$ s) and normal (120  $\mu$ s) cassette tape formulations.



<u>Music Search</u> Locates the beginning of the next song for fast forward or the beginning of the present song on rewind.

## <u>HDD</u>

ATRAC3 is an audio compression technology used in "MagicGate Memory Stick" and MDLP. The digitised music data can be compressed into 1/10th of the volume of a conventional music CD. A 64 MB capacity "Memory Stick" was record about 60 minutes of music.

Check-in/Check-out

Check-In/Check-Out

"Check-Out" = transferring data from the DEH-PoonHDD's built-in HDD to
the "MagicGate Memory Stick". "Check-in"= returning "checked-out"
music data to the HDD. The "Check-in" can only be done by the HDD which
did the "Check-out". According to MagicGate regulation, it is possible to
make 4 copies of the music data. One copy is recorded on the HDD, this which leaves you with 3 additional "Check-out" possibilities.

gracenote GDDB®
Pre-installed in the DEH-P900HDD, the Gracenote CDDB® Music Recognition Service automatically adds artist names and disc titles when audio CDs are backed up from the CD player onto the hard disc. Files can be organised into play lists and

selected at the touch of a button. selected at the touch of a button.

CDDB® is a registered trademark of Gracenote. The Gracenote logo and logotype, the Gracenote CDDB® logo and logotype, and the "Powered by Gracenote CDDB®" logo are trademarks of Gracenote. Music recognition service and MRS are service trademarks of Gracenote.

ID3 Tag
This is the format used to record information with an MP3 file. Recordable information: title, artist, album name and music genre. The DEH-P900HDD can display up to 30 characters of this information.



MagicGate Memory Stick
This compact and lightweight IC recording medium can be used with an increasing number of products. Download music from your PC and play it back on the DEH-PgooHDD or another MagicGate Memory Stick compatible player.

## **AUDIO**



40 W x 4 / 45 W x 4
Pioneer co-developed and was the first to introduce this internal power chip which allows increased bass response and system clarity.



ASL (Automatic Sound Leveliser)
Automatic Sound Leveliser (ASL) technology electronically and automatically adjusts volume and frequencies to mask varying degrees of exterior noise.

<u>Auto EQ</u> Auto EQ system tailors specific musical characteristics to taste, according to the car's acoustics. It applies automatic fine-tuning across the entire range of the music's frequency bandwidths using digital 13-band graphic equalisation for front and rear speakers.

# (Automatic) Time Alignment The Time Alignment for

The Time Alignment feature adjusts the speaker sound output timing within the vehicle for each speaker by 1/20,000 second, so the sound from each speaker reaches the driver's ears at the same time

Automatic Time Alignment is a new feature on the AVH-P7500DVD which automatically estimates the delay from each speaker to the listening position and adjusts the Time Alignment accordingly.

BBE Pioner has incorporated the BBE technology into their DEH-P9400MP and FH-P4100R for a pure, natural sound. BBE adds a longer delay time to the lower frequencies and slightly 'boosts' the high range, so that the music recovers its natural articulation. And, BBE These combined features restore the brilliance and clarity of the original sound. controls the amplitude relationship between the mid and high band areas

## \* Licensed by BBE Sound, Inc. under USP4638258 and 4482866. BBE and BBE symbol are registered trademarks of BBE Sound Inc.

BTB
BTB (Bass Treble Boost) is a handy new sound tuning function. Switch between 3 preset equalisation curves to boost the bass and the high range, at the push of a button.



## Built-in DSP

Uses digital technology to correct a vehicle's interior acoustics. The system also offers various sound fields to recreate different listening environments in your car (Studio, Jazz Club,

<u>Digital Compression</u>
This feature is useful for music with an exceedingly wide dynamic range (classical is a good example). Quiet passages are boosted so that they don't get buried by background noise and loud passages are reduced, preventing overload and distortion of the speakers.



Direct Sub Drive

MOSFET50 and EEQ+ can be used together to get Direct Sub
Drive. EEQ+ filters the rear channels output; then, MOSFET50

due to ample audio power — drives Pioneer's high sensitivity
ubwoofers directly, without using a separate component amplifier. MOSFET50 can also drive 2 ohm speakers, pumping out an incredible 1 x 70 W in the rear, giving the unique setup of a 2 x 50 W front and  $1 \times 70 \, \text{W}$  subwoofer system.

<u>Dynamic Bass Emphasis</u>
This feature digitally boosts low and high frequencies at lower volume levels to compensate for ambient road noise.



EEQ (Easy Equaliser)
For the maximum in customised in-car sound, Pioneer developed the Easy EQ (EEQ) system — an incredible advancement over traditional bass/treble adjustments. Users can choose between one of the preset curves or the 3-band (parametric) equaliser curve. And with more parameters, it sounds like a Digital EQ system.



EEQ (Easy Equaliser) +
EEQ (Easy Equaliser) + expands EEQ further with either a Low
Pass Filter (LPF) or a LPF plus High Pass Filter (HPF), for onboard network capability.



EQ-EX EQ-EX (Equaliser Expansion) gives a boost to the current preset equaliser settings. By pressing the EQ-EX button each EEQ curve is acoustically tuned for optimum effect, giving a more dramatic effect and a new edge to the music.



# FIE (Front Image Enhancer) This function shifts the sound 5

This function shifts the sound focus forward electronically, without having to adjust the fader control, by cutting off high frequency signals to the rear speakers. It gives an extremely clear sound image in the front of the car, without attenuating dynamic bass response from the rear speakers. from the rear speakers.



Hi-Volt Pre-Outs
By providing a strong signal, with less noise and more definition, the Hi-Volt pre-outs reduce demand on the input circuit of the amps so they can work with lower gain settings, resulting in improved sound quality and a wider dynamic range.

## AUDIO (CONTINUED)

<u>Loudness Control</u> At low volume levels, low- and high-frequency sounds in music can be overpowered by ambient noise levels in the vehicle. Loudness control provides a one-button way to boost these frequencies and provide better overall sound at low volume levels.



MOSFET50
The MOSFET50 Power Amp boosts audio performance levels by using revolutionary new semiconductor technology.
Characteristics such as low loss, lower audio distortion, eliminated switching distortion and a wide power band combine to give MOSFET50 headunits 50 W x 4 of sonic clarity, matching the best component

Octaver
The 2-mode Octaver Bass Enhancement System is a DSP technology featuring a bass boosting Octaver that processes signals under 200 Hz by shifting down an octave and adding an original sound low-frequency signal



RCA Pre-Out
The standard connection system to carry sound from a headunit to an amplifier or equaliser. RCA pre-outs provide easy output for connection to an outboard amplifier.



RCA Pre-Out Subwoofer output
The dedicated subwoofer output allows connection of an amplifier for a subwoofer without having to purchase a separate crossover. It also simplifies controls by providing subwoofer crossover and level controls as



SFEQ (Sound Focus Equaliser)
SFEQ lets the user control bass and treble settings for front and rear independently for easy customisation of the total



<u>Source Level Adjuster (SLA)</u> Independently adjusts the volume ratio between all of the headunit's sources (using the FM volume level as a reference), so the start-up volume between sources will always be the same.

# SYSTEM CONTROL



AUX-In for External Music Sources
All Pioneer IP-Bus headunits units allow the connection of external music sources (with RCA outputs), such as portable recorders, micro-cassettes, etc., through the MCD bus connection. (Adapter CD-RB20).

Back-up Camera Input
The Back-up Camera Input is a video input that can be used for a reverse view camera.



<u>DAB Control</u> Pioneer products with IP-Bus control offer 2 levels of DAB control: Full or External (EXT) control. Full control allows full advantage of DAB features, such as Automatic Switching between DAB and FM RDS. EXT control allows control of most DAB features, such as Service Component Selection and Text Display, but not DAB to FM Automatic Switching.

<u>Dual Zone</u>
Pioneer's new AV headunits are Dual Zone ready, meaning the rear seat passengers can enjoy in-car entertainment from a different source than the driver and front seat passenger.

<u>DVD Control Line</u> This is used to connect the AVM-P9000R to the XDV-P9-II.



Hard-wired Remote Control
This convenient feature allows users to operate their Pioneer headunit with the car's existing steering wheel remote control. These headunits can be hard-wired directly to the car's remote, by using Pioneer's optional interface kit.

# IP-Bus Control The IP-Bus connections on Pioneer headunits allow the user

to connect optional source units such as a TV Tuner, DVD player, Multi-CD player or DAB Tuner and create a true mobile multimedia

An optical cable is used to connect Pioneer's DVD players to the AVM-P9000R.

## SYSTEM CONTROL (CONTINUED)

RCA AV input/output
Standard connection for AV sources.

## RCA Video input/output

RGB input/output for Navigation/AV
Pioneer proprietary format cable for high quality connection of video



Speaker Input for Hands-free Phoning
When the standard mini-jack cable from the hands-free car kit
"speaker out" socket is plugged into the system, calls will come in directly through the main speakers and the source source will



TV Control TV Control allows Pioneer headunits with IP-Bus connectivity to control a hide-away TV tuner.

<u>Virtual Sonic Output</u>
Virtual Sonic Output provides all the excitement of 3-D surround sound over conventional headphones. It allows rear seat passengers to enjoy their favourite forms of entertainment without disturbing the driver.



| Voice Control | Adding the optional CD-VC6o/65 voice control unit enables a headunit to be operated by voice to select the source, radio station or even a preferred CD\*.

Only available with CD Text and Disc Title Memory capable

## **ERGONOMIC FEATURES**

A specific coat used on Pioneer video screens minimises reflection and glare for comfortable viewing.



<u>Direct Key Operation</u> New mode on the new CD tuners with OEL display. In Direct Key Operation mode the OEL display indicates the functions each of the 4 Soft Keys.



<u>Dual Button Illumination</u> Denotes units that can switch front panel illumination colour between green and red to match the dashboard.

Full Flap Design
In a full flap designed headunit, the CD or cassette slot is hidden behind the front panel. This results in a larger display with improved visibility and more impressive display animations.

OEL Pioneer OEL (Organic EL) display delivers high-contrast, moving 3-D images, even in sunlight. Its smart functionality lets the user control and confirm play source operating information and provides plenty of space for text, for lists of tracks, discs or other data from MDs or CDs. Pioneer's latest OEL display is also larger, using a total of 256 x 80 pixels to offer even more entertainment features.



Pop-Out Rotary Volume
The pop-out rotary volume is a Pioneer ergonomic design element: press and the button pops out to turn up the

Removable Front Panel (RFP)
A theft-deterrent system invented by Pioneer. With RFP, the front panel of the unit can be lifted off and slipped into a protective case. The unit's sensitive electronics remain protected in the dash; all that remains visible is a black panel that won't attract thieves.

Soft Key Concept
The Soft Key Concept makes operation super easy. Button assignments change according to the source or function engaged. You can access the function you need directly, with one touch, Some functions are also accessible via the remote controller's cross-key or the steering wheel remote.

TFT LCD's offer high quality video pictures with wide viewing angles, perfect for in-car viewing.

## **AMPLIFIERS**

## **Balanced Isolator Circuit**

Prevents ground voltage flows from interfering with the signal. Pioneer improved existing designs by separating the left and right channel grounds. This puts each channel's signal wave in phase, which helps cancel noise components within the grounds. The output is cleaner, with

Class-D Amplifiers

lass-D amplifiers require less electrical current and produce less distorting heat, while 67 % of the power supply is transferred into the load. A digital signal is generated and filtered through the Low Pass Filter. The power output FETs ensure more efficient operation, and the design is more compact thanks to a smaller heat sink. The final result is undistorted and clear sound

## **DMOSFET Output Section**

A DMOSFET output section utilises a high-density circuit layout to reduce line impedance and maintain stability. Switching noise is eliminated, resulting in enhanced high-frequency range performance and improved linear response.

## Input Level Control

Level Control adjustment is provided to match the amplifier's input with the source unit's output. Proper adjustment ensures less noise and distortion.

Amplifiers with "Link Top" are equipped with output terminals for convenient, efficient, low noise connection to an additional amplifier driving a subwoofer or to create a multi-channel speaker system.

Low Impedance Load Capability (High Current)

Refers to power amplifiers that provide 1 – 1/2 times the power output of Refers to power amplifiers that provide 1-1/2 times the power output of standard 4  $\Omega$  operation at 2  $\Omega$ . Since they have the power to drive more speakers, these amps also increase system flexibility by enabling the hook-up of multiple pairs of speakers.

MOSFET Output Devices
MOSFET Output devices offer significant advantages over traditional bipolar devices. Faster switching enhances acoustic realism and keeps sound reproduction crystal clear. And with a higher thermal stability, performance is optimised at peak operating temperatures.

## PWM Regulated MOSFET Power Supply

During the process of Dc-to-DC step-up transforming, the voltage at the secondary winding must be kept stable despite voltage fluctuations of loads fluctuations during windings. Pioneer's PWM (Pulse Width Modulation) power supply design maintains stability between primary and secondary windings, and uses a MOSFET to switch the power supply on and off very quickly in response to input. This translates into cleaner output with less distortion.

<u>Screw-Type Terminals</u>
Pioneer uses Screw-Type terminals for the speaker connections as well as the power and ground connections. These terminals make a more reliable connection and allow the use of larger gauge wire for improved

Speaker Level Input
This allows a Pioneer amplifier to be connected to an OEM radio without requiring costly add-on adapters. The added flexibility allows your Pioneer amplifier to be a part of your system as it grows and expands

Variable Bass Emphasis

Allows bass frequencies to be boosted for each equipped amplifier. This allows the installer/user to set the optimal bass level for the speakers connected to that individual amplifier, allowing the user to best utilise the headunit's tone controls for all speakers in the system.

## **SPEAKERS**

3-D Magnesium Hybrid Cone
The E-Motion Series 3-D Magnesium Hybrid Cones produces purest, accurate sound with the most possible power through the use of an alloy of Magnesium and Aluminium

# 3-layer Fibre Woven Radial Surround The innovative patent per directions

The innovative patent-pending 3-layer Fibre Woven Radial Surround consists of two outer layers and one inner layer of interwoven fibre. This results in an extremely durable and resilient surround which improves the high power capability.

ADMG (Aero-Dynamic Magnetic Gap) Each pole piece and top plate of the ADMG has an air channel in a narrow magnetic gap, which effectively reduces physical resistence

## SPEAKERS (CONTINUED)

## **Aluminium Die-Cast Basket with Bottom Hold Structure**

Pioneer's new aluminium die-cast basket securely supports the motor, and provides excellent damping characteristics to attenuate vibrations quickly and prevent distortion.

Aramid Fibre Cone Woofer
The woofer of the TS-W12PRS, TS-M7PRS, TS-C1700R and TS-C1300R was meticulously designed to reproduce real strings and vocals with less distortion. Thanks to the Aramid Fibre Composite Cone, you can expect accurate, smooth sound from mid-bass to upper midrange frequencies.

Bass Reflex
A loudspeaker design in which the sound waves generated by the driver's rear surface are allowed to pass through a port in the enclosure to reinforce bass response. This enables smaller drivers to offer increased bass response with less power.

Butyl Rubber Edge
The rolled edge where the speaker cone meets the frame, is made of a specially blended, highly durable and moisture-resistant compound. Butyl Rubber keeps the cone moving in a linear direction and stops the cone from vibrating. This leads to less distortion and superior frequency

## CCAW (Copper-Clad Aluminium Wire) Voice Coil

is lighter than conventional copper wire. When used as a Aluminium wire is igner than convenional copper wire, when used as a voice coil material, larger gauge aluminium wire can be used to increase maximum input power and to extend bass response. A copper coating over the aluminium enables sure soldering contact and wide frequency

## Conex Damper

The damper guides the speaker cone and voice coil as it moves back and forth during use. While typical dampers are made of cloth, on many models Pioneer uses Conex. This special material provides increased rigidity, longer travel and improved moisture resistance.

<u>Conical Dome Technology</u>
The Pioneer IMPP cone woofers give smoother low to upper midrange reproduction and high rigidity through the use of highly Crystallised Polypropylene. The integration in the cone of conical domes (Bass Bullets) results in lower distortion, richer bass sounds and increased cone rigidity.

## Crystalline IMPP Cone

This material with high young modulus and high propagation rate makes the cone more rigid and improves the transient response, resulting in accurate sound.

<u>Double Damper</u> A damper supports the speaker cone and guides the cone as it moves back and forth during use. By using two dampers instead of one in many of its speakers, Pioneer has greatly improved linearity over the entire frequency range of the speaker.

## **Dual Ceramic-Coated Voice Coil**

The ceramic coating superbly insulates the voice coil wire, preventing short circuits due to overheating and drastically improving reliability: meaning double power handling capacity of a conventional voice coil.

## **Dual Voice Coil**

The flexible wiring configuration of the Dual Voice Coil subwoofers when used in combination with a low impedence compatible amplifier, can give an even bigger and more powerful bass reproduction capability.

Easy Connector
Most 17 cm and 13 cm custom-fit models are equipped with a handy Easy Connector, making it easier to cable them with the car's speaker connectors

## Foamed IMPP

Using a unique foaming process during the injection moulding process, Pioneer's IMPP speaker cones feature lighter weight and increased rigidity for improved linearity, decreased distortion, improved bass performance and clarity.

Foamed PPC (Pearl Polycarbon) Diaphragm
The Pioneer foamed PPC diaphragm is light-weight yet rigid, resulting in an improved low-mid transient response and smoother midranges, opening the sound character.

Glass-Imide Voice Coil Bobbin
Many Pioneer speakers utilise a voice coil whose cylinder is made from a
woven fiberglass material bound by a polyimide resin. This Glass-Imide
material has much higher heat resistance, which translates into higher power handling capability for the speaker and less distortion.

## High-Power Motor Assembly

The huge motor structure provides more powerful force to move the cone assembly harder and consequently overcome the tremendous air

## SPEAKERS (CONTINUED)

## INJECTION MOLDED CONE

## IMPP™ (Injection-Moulded Polypropylene)

Mirror Composite Cone
Pioneer uses a special injection moulding that ensures uniform cone thickness for superior linearity and clarity. Pioneer's "Composite" technology guarantees the perfect mix of polypropylene and carbon-fiber, graphite and other materials to optimise the speaker cone for its specific application (woofers, midranges, or tweeters, etc.).

Interlaced Fibre Reinforced IMPP Cone
Pioneer's patent-pending IMPP cone utilises a composite blend of
interlaced long fibres (e.g. carbon fibres). This cone is extremely rigid yet
lightweight, for low distortion and powerful bass at high sound pressure

<u>Linear Power Response</u>
With no roll to restrict the cone's movements, this innovative system mimics a finely tuned precision piston, smoothly moving the speaker cone up to a higher level than ever. And thanks to its unique edgeless diaphragm, there is no stress or distortion around its diaphragm.

Neodymium Magnet
Neodymium has a high magnetic flux density. It is about 7.5 times
stronger than a standard magnet and allows Pioneer speaker designers to
make a tweeter that is smaller and has reduced distortion as compared to a model using a standard magnet.

## Overhung Surround

By extending the wide-roll surround over the typical gasket area, this design provides 22 % more cone surface than traditional surround designs. The increased surface moves more area and achieves higher sound pressure levels.

## Power Blades

The Pioneer Magnesium Hybrid cone woofers give smoother low to upper midrange reproduction and high rigidity. The integration in the cone of Power Blades (protrusions) results in lower distortion, richer bass sounds and increased cone rigidity.

Pulp Drive Cone
Paper pulp is used in the E-motion Series speakers to form a drive cone on the backside of the Magensium Hybrid Cone. Very light material that is resistant to longitudinal strain, pulp eliminates additional vibration and distortion. This results in a smooth, purer sound.

<u>Separate Component Speakers</u>
Speakers, such as woofers, midranges and tweeters, that reproduce only certain frequencies. Component Speakers not only reproduce the audio signal more accurately, but also increase the listener's control over the

## Strontium Magnet

A very powerful magnetic material which has a greater magnetic force field than a ferrite magnet. Strontium magnets improve efficiency and power handling capabilities. This enables engineers to build a much smaller magnet, and consequently a thinner speaker to fit in areas with limited mounting depth without compromising sound quality.

## <u>Swivel Mount Tweeter</u> The swivel mount tweeter offers the best of all installation possibilities.

Featuring a specially designed flush-mount cup, this mounting system allows the tweeter to be angled in any direction for optimum imaging and

<u>Titanium Dome Tweeter</u>
The Titanium Dome driver of the E-Motion Speaker Series has a pure titanium diaphragm. Titanium produces crystal clear high notes with minimum distortion and ensures a smooth woofer to tweeter transfer using the maximum power possible.

VCCS (Voice Coil Cooling System)
VCCS brings high power to the Pioneer subwoofers.
The Voice Coil Cooling system takes the heat away from the new 4-layer voice coil using a heat resistant, highly conductive aluminium bobbin. Plus, extra slits in the bobbin reduce eddy currents while radiating the heat. This results in distortion-free, tonally accurate

## accessories

## Connectors

Speaker outputs to RCA connectors which enable the connection of high power amps having RCA connectors to the speaker outputs of car stereo models.



## RD-SR520

For High Power car stereo models with 2 x 25 W output (power).

## RD-SR510

For car stereo models with 2 x 8.5 W output (power).



## CD-RD100

RCA-DIN interconnector which enables the connection of any car stereo unit with RCA ouput to a Pioneer component system with DIN input.

## Others



Subwoofer Grille for TS-W121SPL\* and TS-W305C

## UD-G255

Subwoofer Grille for TS-W101SPL\* and TS-W255C

\* Necessary to take off the gasket.



Battery Cord
Amplifier battery cord specially designed for model GM-X972.



IP-Bus - RCA Interconnector

Allows you to connect an external audio source and a Multi-CD player through the IP-Bus input of any P-series headunit (except KEH-P1010(13)R).



## CD-727

**Component Dual Amp Balancer** 

Adjusts front to rear balance in component dual amp systems with RCA

## **Line Noise Suppressors**



## RD-985 (5 m)

High performance RCA signal ground isolator to be connected to the RCA input of the amplifier. suppressing the alternator noise.



High Power line noise suppressors which reduce alternator and other noise reaching the car stereo or amplifier through the power line.

## RD-984 (Handles up to 30 A)

RD-983

## (Handles up to 10 A)

## AD-990C

(Handles up to 4 A)

## Interconnectors



## RD-ANSo

Antenna Adaptor Converts an ISO10599 type female antenna connector

DIN41585 into (Sept. 1953) male antenna connector.



## AD-EU800S

Interfaces Pioneer car speakers with the speaker harness in Renault

Espace, Safrane and 19 (5/'92-), Volkswagen Golf III and Vento, Seat Toledo and Opel/Vauxhall



## AD-0P182

Interfaces Pioneer car stereo with the cable harness of Opel/ Vauxhall

AX/ZX, Peugeot 306 (3/93) and 405 (7/'92-), Alfa 155 and Fiat Croma (2/'92-) (including antenna adaptor).



## AD-VA142

Interfaces Pioneer car stereo with the cable harness of Volkswagen, models and Audi Seat

Toledo (including antenna adaptor).

## Remote Controller Kit



Designed with safety in mind, Pioneer's full-function smart remote works with remote control ready headunits, to give you easy control of all operations - without having to reach for the headunit.

## **Optional Spacer Rings**







(17 – 42 mm thick) Spacer rings designed for 16 cm flush-mount speakers.



(11 – 27 mm thick) Designed for 10 cm flushmount speakers.

## CD/DVD Magazine



CD/DVD Magazine for XDV-P9-II, CDX-P670, CDX-FM657 and multi-CD Packages.

## Cables



## CD-140 (4 m)

Component DIN extension cable.

## 63P989 (5 m)

## 96P774 (5 m)

RCA cable (Audio + Video).

## **Optional Custom-Fit Speaker Adaptor Plates**



## UD-M172

Adaptor kit designed to mount 17 cm Ø speakers.

## UD-M174VW

Adaptor kit for Volkswagen Golf/Passat to mount 17 cm speakers (front and rear door).



## **UD-M171** (5 mm thick)

Adaptor kit designed to mount 17 cm Ø speakers.

## UD-M<sub>177</sub>VW

Adaptor kit for Volkswagen Lupo and Seat Arosa to mount 17 cm speakers (front door).



## UD-M870

Adaptor kit designed to mount 87 mm Ø speakers.

## UD-M175MB

Adaptor kit for Mercedes A Class to mount 17 cm speakers (front door).

## UD-M135MB

Adaptor kit for Mercedes A Class to mount 13 cm speakers (rear door).

## UD-M1760P

Adaptor kit for Opel/Vauxhall cars to mount 17 cm speakers.

# navigation and AV features

## AVIC-900DVD

## DVD NAVIGATION/AV UNIT

## **Navigation/AV Unit**

- 1-DIN or hide-away installation
- Voice Recognition (6 Languages Support: English, German, French, Italian, Dutch, Spanish)
- Voice Guidance and Display MENU (8 Languages Support: English, German, French, Italian, Dutch, Spanish, Danish, S
- French, Italian, Dutch, Spanish, Danish, Sweush)

  3.2-bit RISC CPU

  Exclusive Graphic Accelerator for smooth line drawing

  Super-fast operation Route Calculation

  Built-in RDS-TMC tuner for Traffic Information

- Built-in Hybrid sensor (G-force sensor) for distance correction on slopes
   Built-in GPS receiver
   4 Guidance Modes (Map Mode, Street List Mode\*, Mixed Mode,

- PC Card Slot built-in (Type II)
- Speaker Out (8 Ω miniplug out) for voice guidance
   Ultra-slim built-in DVD-Video/DVD-ROM/CD Player
   Built-in MPEG 2/1 decoder-stereo sound
- CD functions: Track Scan, CD Pause, Random/Repeat Play
- Region Number: 2

### Accessories

- Voice recognition Microphone
- GPS Antenna
- Waterproof On-dash/roof mounting
- Power Cable
- RGB cable to connect AVH series
- Steering wheel remote control
   Joystick-type Remote Control for DVD-Video

## DVD-ROM Navigation Disc: CNDV-30

- Application programme and map data on 1 DVD disc
   Coverage Area: UK (incl. Northern Ireland), Germany, France, Italy, Benelux, Austria, Switzerland, Spain, Portugal, Denmark, Sweden, Finland (Helsinki area), the southern part of Norway, Ireland (= Dublin, Kerry and selected motorways), Monaco, Liechtenstein, Andorra, San Marino, The Vatican
- \* With Touch Panel operation only

## AVIC-800DVD

## DVD NAVIGATION UNIT

## **Navigation Unit**

- 1-DIN or hide-away installation
   Voice Recognition (6 Languages Support: English, German, French, Italian,
- Dutch, Spanish)

  \*Voice Guidance and Display MENU (8 Languages Support: English, German, French, Italian, Dutch, Spanish, Danish, Swedish)

  \*3.2-bit RISC CPU

  \*Exclusive Graphic Accelerator for smooth line drawing

- Super-fast operation Route Calculation
   Built-in RDS-TMC tuner for Traffic Information
   Built-in Hybrid sensor (G-force sensor) for distance correction on slopes
- Built-in GPS receiver
   4 Guidance Modes (Map Mode, Street List Mode\*, Mixed Mode, Driver's View)
   PC Card Slot built-in (Type II)
   Speaker Out (8 Ω miniplug out) for voice guidance

## Accessories

- Voice recognition Microphone
- GPS Antenna
- Waterproof
   On-dash/roof mounting
- RGB cable to connect AVH series · Steering wheel remote control

## **DVD-ROM Navigation Disc: CNDV-30**

- Application programme and map data on 1 DVD disc
   Coverage Area: UK (incl. Northern Ireland), Germany, France, Italy, Benelux, Austria, Switzerland, Spain, Portugal, Denmark, Sweden, Finland (Helsinki area), the southern part of Norway, Ireland (e) Dublin, Kerry and selected motorways), Monaco, Liechtenstein, Andorra, San Marino, The Vatican
- \* With Touch Panel operation only

## ANH-P9R/ANH-P9R-BK

## NAVIGATION CD TUNER

## **Navigation Features**

- 1-DIN installation Built-in RDS-TMC tuner for Traffic Information
- Built-in GPS receiver
   Selectable Voice Guidance: Male/Female\*
- Menu language: UK English, German, French, Italian, Flemish, Swedish, Spanish, Danish, Dutch, Turkish
- Destination Memory: permanent memory for approx. 50 destinations + so last destinations
- 50 last destinations
  Route planner modes: shortest/fastest route with/without motorways,
  with/without toll roads, with/without ferries
   TMC support : Germany, North of Italy, The Netherlands, Switzerland
- · CD playback whilst navigating
- Address Search
   POI Search

## **CD-ROM Navigation Disc**

- Application programme and map data on 1 CD-ROM
   Coverage Area: UK, Ireland, Germany, France, Italy, Benelux, Austria, Switzerland, Spain, Portugal, Denmark, South of Sweden, Monaco, Liechtenstein, Andorra, San Marino, The Vatican

- Adaptive RDS (PI, PS, AF, TP/TA) PTY (Search and Alarm)
- News interrupt feature
- Radio Text
- BSA (Best TP Station Auto Search)

- High speed PLL Synthesiser tuner
   PNS (Pulse Noise Suppressor)
- 24 Presets
- BSM (Best Stations Memory)

## **CD Plaver**

- 8 x oversampling digital filter 1-bit D/A Converter
- Fast forward/reverse
- Track Search/Scan/Repeat
- Track/Manual search
   Random Play
- Last position memory
- Disc Title Memory
- CD Text
   CD-R/RW Playback CD-ROM

- MOSFET 50 W x 4 max. output power (watts)
   4 x 27 W DIN output power watts (DIN 45324, +B = 14.4 V)
   Built-in EEQ (Easy EQ) Plus system with 5-mode factory preset equaliser, 2 custom preset equalisers, 3-band parametric equaliser, 3-mode Loudness, and LPF Network
- SFEQ (Sound Focus Equaliser)
   Direct Sub Drive
- Loudness
- Source Level Adjuster
- Fader
   Dual RCA pre-out (Front + Rear or Subwoofer)

## General

- Multi-CD Control
- ITS (Instant Track Selection)
   Source TV Control
   DAB Tuner Control
   External Source DVD Control

- External source DVD Control
   External unit control via IP-Bus
   AUX-In (with optional CD-RB20)
   Remote control ready
- ISO Connector
- Digital Clock
- OEL Blue Display Illumination
   Soft Key Control
- Rotary volume
- Flap-type Front Panel
   Removable Front Panel
- Removable Front Pariet
   Cellular telephone auto muting
   Flexible angle installation (0 30°)

## Accessories

- GPS Antenna (5 m cable) included
- DIN Installation holder
- Detach case (hard)
   30 cm Power Cord cassy with ISO Interconnector
- \* Male only: Turkish; Female only: Danish, Dutch, Flemish

## AVH-P7500DVD

## MULTI-CHANNEL DVD AV HEADUNIT

• Pioneer Graphical User Interface (GUI) with full-colour virtual reality graphics

- 7-inch wide TFT active matrix LCD colour display
   Touch panel operation
   High quality AGLR (anti-Glare, Low-Reflection) coating
- Picture Adjustment
- Fully motorised display with auto dimmer and free adjustable viewing angle (50 110°)

  Selectable wide-screen mode (Just/Full/Cinema/Zoom/Normal)

## Built-in DVD/CD/MP3 Player

- DVD-Audio/DVD-Video/Video CD/MP3 CD player
   5.1-channel surround sound capability:
   Built-in Linear PCM/MPEG-A/DTS/Dolby Digital/Dolby Pro Logic II decoder
- 6-channel DAC & 6-channel DSP
- Digital Sound Field Control (SFC) for multi-channel sources (Musical/Drama/ Action/5D Theatre)

   DVD-R/RW<sup>1</sup> and CD-R/RW<sup>2</sup> playback

   Region Number: 2

DVD Capabilities

• DVD-Audio/DVD-Video/Video/U Playback with Direct Search Chapter/Track, Next/Previous Chapter/Track, Fast Forward/Reverse, Pause, Track/Chapter Repeat, Condition Memory (30 discs), Playback Control (VideoCD only), Direct Search Title/Group, Time Direct Search, Scan, Digital Direct

- CD Capabilities

  CD Playback with Track Scan/Pause/Repeat, Random Play, CD Text, List Search
- MP3/CD-R/RW/CD-ROM, Random Play
  96 KHz/24-bit DAC
  24-bit D/A Converter Fast forward/reverse
- Track Search/Scan/Repeat
- Track/Manual search
  Last position memory
  Disc Title Memory

- Adaptive RDS (PI, PS, AF, TP/TA)
  PTY (Search and Alarm)
  News interrupt feature
- Radio Text
- D4Q Digital AM/FM Tuner
   BSA (Best TP Station Auto Search)
   High speed PLL Synthesiser tuner
   PNS (Pulse Noise Suppressor)
- BSM (Best Stations Memory)

- 1 RCA AV input
- 1 RCA AV output (1 AV-OUT) 1 RCA Audio Output for rear entertainment
- Back-up camera input
   RGB Input for Navigation system
- Audio/Visual

- MOSFET 50 W x 5 max. output power (watts)
   5 x 27 W DIN output power watts (DIN 45324, +B = 14.4 V)
   Optimum sound reproduction for in-car environment:

   Built-in EEQ (Easy EQ) Plus system with 5-mode factory preset equaliser, 2 custom preset equalisers, Source Equalisation Memory, and HPF/LPF Network

   Built-in DSP (Digital Sound Processor) with Multi-Channel Auto-EO 13-bat
- Network

   Built-in DSP (Digital Sound Processor) with Multi-Channel Auto-EQ, 13-band Graphic Equaliser, Automatic Time Alignment and Optimum downmix for normal speaker layout

   Source Level Adjuster
- Spectrum Analyser
- Level indicato

- Source DVD Control
- External unit control via IP-Bus (2)
   AUX-In (with optional CD-RB20)
   Standard remote control
- ISO Connector Rotary volume

- General Multi-CD Control
- ITS (Instant Track Selection) for MCD
   Source TV Control
   DAB Tuner Control

- Removable Front Panel with safety warning beep
  Cellular telephone auto muting
  Speaker input for hands-free
  Flexible angle installation (o 60°)

# navigation and AV features

## AVH-P6500DVD

## DVD AV HFADLINIT

Pioneer Graphical User Interface (GUI) with full-colour virtual reality graphics

## Display

- 6.5-inch wide TFT active matrix LCD colour display
   Touch panel operation

- Display area: 146 x 79 mm, 336,960 (1,440 x 234) pixels

  High quality AGLR (anti-Glare, Low-Reflection) coating

  Picture Adjustment

  Fully motorised display with auto dimmer and free adjustable viewing angle
- (50 110°)
   Selectable wide-screen mode (Just/Full/Cinema/Zoom/Normal)

## Built-in DVD/CD/MP3 Player

- DVD-Video/Video CD/MP3 CD player
   Built-in Linear PCM/DTS/Dolby Digital decoder
   DVD-R/RW¹ and CD-R/RW² playback

DVD Capabilities

• DVD-Video/Video CD Playback with Direct Search Chapter/Track,
Next/Previous Chapter/Track, Fast forward/reverse, Pause, Track/Chapter
Repeat, Condition Memory (3o discs), Play back Control (Video CD only),
Direct Search Title/Group, Time Direct Search, Scan, Digital Direct

- CD Capabilities

  CD Playback with Track Scan/Pause/Repeat, Random Play, CD Text, List Search
- 96KHz/24-bit DAC
- 24-bit D/A Converter Fast forward/reverse

- Track Search/Scan/Repeat
- Track/Manual search
- Last position memory (for CD function only)

- Adaptive RDS (PI, PS, AF, TP/TA)
   PTY (Search and Alarm)
- News interrupt feature
- Radio Text
   D4Q Digital AM/FM Tuner
- . BSA (Best TP Station Auto Search)
- High speed PLL Synthesiser tuner
   PNS (Pulse Noise Suppressor)
- 24 Presets
   BSM (Best Stations Memory)

## Audio/Visual

- 1 RCA AV input 1 RCA AV output
- 1 RCA Audio Output for rear entertainment
- Back-up camera input
   RGB Input for Navigation system
- AV Bus input
   10-bit DAC (Video)
- 24-bit DAC (Audio)

- MOSFET 50 W x 4 max. output power (watts)
   4 x 27 W DIN output power watts (DIN 45324, +B = 14.4 V)
   Optimum sound reproduction for in-car environment:
   Built-in EEQ (Easy EQ) Plus system with 5-mode factory preset equaliser, 2 custom preset equalisers, 3-band parametric equaliser, 5-burned parametric squaliser, 3-mode Loudness, and HPF/LPF Network

- SFEO (Sound Focus Equaliser)
- Direct Sub Drive
- Loudness
- Triple Hi-Volt (4 V) RCA Pre-Outs (Front + Rear + Subwoofer)

## General

- Multi-CD Control
   ITS (Instant Track Selection) for MCD
- Source TV Control DAR Tuner Control
- Source DVD Control
   External unit control via IP-Bus (2)
- Multi-channel surround sound ready (with DEO-P7000 Digital Signal
- AUX-In (with optional CD-RB2o)
   Standard remote control
   ISO power/speaker connector

- Rotary volume
   Removable Front Panel with safety warning beep
- Dual button illumination (green/red)
   Cellular telephone auto muting

Triple Hi-Volt RCA pre-out
 (Front + Rear + Subwoofer or Non-Fading)

- Speaker input for hands-free • Flexible angle installation (o - 60°)

## AVH-P6400CD

## AV HEADUNIT WITH BUILT-IN CD PLAYER

- 8 x oversampling digital filter
   1-bit D/A Converter
   Fast forward/reverse
- Track Search/Scan/Repeat
- Track/Manual search
   Random Play
- Last position memory
   Disc Title Memory
- CD Text
- CD-R/RW Playback

- 6.5-inch TFT active matrix LCD color display

- High quality AGLR (anti-Glare, Low-Refrection) coating
   Fully motorised display with auto dimmer and free adjustable viewing angle
   Selectable wide-screen mode (Just/Full/Cinema/Zoom/Nomal)

## Tuner

- Adaptive RDS (PI, PS, AF, TP/TA)
- PTY (Search and Alarm)
   News interrupt feature
   Radio Text
- ARC 5 FM
- BSA (Rest TP Station Auto Search)
- High speed PLL Synthesiser tuner
   PNS (Pulse Noise Suppressor)
- 24 Presets
- BSM (Best Stations Memory)

## Audio/Visual

- 1 AV input 1 RCA Video out

- \*\*MOSFET 50 W x 4 max. output power (watts)

  \* 4 x 27 W DIN output power watts (DIN 45324, +B = 14.4 V)

  \*\*Built-in EEQ (Easy EQ) system with 5-mode factory preset equaliser,

  2 custom preset equalisers, Source Equalisation Memory, Loudness, and LPF
- SFEQ (Sound Focus Equaliser)
   Direct Sub Drive
- Loudness
   Source level adjuster
- 24 Presets BSM (Best Stations Memory)

## Audio/Visual

- 1 AV input 1 RCA Video out

AV HEADUNIT

- MOSEET so W x 4 max output nower (watts)
- MUSEC: 50 W X 4 in MX. Output power (Walts)

   A x 27 W DIN output power watts (DIN 45324, +B = 14.4 V)

   Built-in EEQ (Easy EQ) system with 5-mode factory preset equaliser,

  2 custom preset equalisers, Source Equalisation Memory, Loudness, and LPF
- SFEQ (Sound Focus Equaliser)
   Direct Sub Drive
   Loudness
- Source level adjuster
- Triple Hi-Volt RCA pre-out (Front + Rear +Subwoofer or Non-Fading)

ISO Connector

Multi-CD Control

Fader

- Rotary volume
   Removable Front Panel
   Cellular telephone auto muting
   Speaker input for hands-free

External Source DVD Control
 External unit control via IP-Bus (2)
 AUX-In (with optional CD-RB2o)
 Remote control ready

• Flexible angle installation (o - 60°)

Multi-CD Control
 ITS (Instant Track Selection)

External Source DVD Control
 External unit control via IP-Bus (2)
 AUX-In (with optional CD-RB20)

 Cellular telephone auto muting Speaker input for hands-free
 Flexible angle installation (o – 60°)

Source TV Control

DAB Tuner Control

Remote control ready
 ISO Connector
 Rotary volume
 Removable Front Panel

ITS (Instant Track Selection)
 Source TV Control
 DAB Tuner Control

## AVH-P6400R

## Display

- 6.5-inch TFT active matrix LCD color display
- High quality AGLR (anti-Glare, Low-Refrection) coating
- Fully motorised display with auto dimmer and free adjustable viewing angle
   Selectable wide-screen mode (Just/Full/Cinema/Zoom/Nomal)
- Adaptive RDS (PI, PS, AF, TP/TA)
  PTY (Search and Alarm)
  News interrupt feature
- Radio Text

AVX-7300

- BSA (Best TP Station Auto Search)
- · High speed PLL Synthesiser tune
- PNS (Pulse Noise Suppressor)
- 7-inch wide TFT active matrix LCD colour display
   High quality AGLR (Anti-Glare, Low-Reflection) coating
   Fully motorised display with auto dimmer
- and free adjustable viewing angle
- PAL/NTSC/SECAM\* compatible RGB input AV-Bus Input
   1 RCA Video Input (PAL & NTSC Video)
- Selectable wide-screen mode (Just/Full/Cinema/Zoom/Normal)
  Partially removable front panel with warning LED
  Dual button illumination

- Including separate speaker
   Remote control sensor
- \* Cannot accept SECAM L, as used in France.

8-INCH WIDE-SCREEN

7-INCH WIDE-SCREEN

IN-DASH COLOUR DISPLAY

- 8-inch wide TFT active matrix LCD colour display
- High quality Anti-Glare coating
   RGB input for Navigation system (with optional cable CD-65 RGB)
   RGB input for Navigation system (with optional cable CD-65 RGB)
   RGA AV Inputs (PAL/NTSC Video & L + R Audio) with S-Video
   RCA AV Output (PAL/NTSC Video & L + R Audio)
- · Auto Display brightness and backlight adjustment
- Built-in high quality speaker (36 mm) with volume control

## AVD-W8000

LCD COLOUR DISPLAY

1 Even if a DVD-R(W) disc is recorded in Video format (Video Mode), it may not be playable as a result of scratches, dirt or characteristics specific to the disc, or dirt or condensation on the pickup lens. DVD-R(W) discs that haven't been finalized, cannot be played. In general, discs recorded in the current format using a PC (personal computer) are playable. However, certain settings and application software environments may not be able to play these discs. Please ask your application software sales agent for more details.

2 Use finalised manuer. CD-R(W) discs (D-R(W) discs may not play back. In some access, CD-R(W) discs may not play back cannot be pickup lens. Total information such as titles recorded in or harderistics specific to these discs, or, dirt or condensation on the pickup lens. Text information such as titles recorded on CD-R(W) discs may not be displayed. Read directions carefully regarding disc use before handling CD-R(W) discs. Even if playback of a CD-R W disc is possible, it may take several seconds before a catal sound reproduction begins.

# navigation and AV features

## AVD-W6210

6.5-INCH WIDE-SCREEN

LCD COLOUR TOUCH PANEL DISPLAY

- 6.5-inch wide TFT active matrix LCD colour display

- High quality Anti-Glare coating
   RGB input for Navigation system (with optional cable CD-3oRGB)
   RGA VI Inputs (PAL/NTSC Video & L+ R Audio)
   RCA AV Output (PAL/NTSC Video & L+ R Audio)
- · Auto Display brightness and backlight adjustment
- Remote Control sensor
- Relinote Control sensor
   Built-in high-quality speaker (36 mm) with volume control
   Selectable wide-screen mode (lust/Full/Cinema/Zoom/Normal)
   Touch Panel operation ready (with CNDV-30)
   Smoothly trimmed product edge for easy installation

## AVD-W6200

6.5-INCH WIDE-SCREEN LCD COLOUR DISPLAY

- 6.5-inch wide TFT active matrix LCD colour display
- Symich Wide IT active matrix LCD colour display
   High quality Anti-Glare coating
   Built-in high-quality speaker (36 mm) with volume control
   2 RCA AV Inputs (PAL/NTSC Video & L + R Audio)
   1 RCA AV Output (PAL/NTSC Video & L + R Audio)
- Power Supply In

- Auto Display brightness and backlight adjustment
   Selectable wide-screen mode (Just/Full/Cinema/Zoom/Normal)
   Semi-quick release mechanism
   Smoothly trimmed product edge for easy installation
- · Optional installation kit available

## AVR-W6100

6.5-INCH WIDE-SCREEN LCD COLOUR DISPLAY FOR ROOF MOUNT

- 6.5-inch wide TFT active matrix LCD colour display
- High quality anti-glare coating
   2 RCA AV inputs (1 via standard AV remote cable)
   1 optional extra RCA input with CD-AR6oo AV remote cable
- 1 RCA AV output
- Power Supply In
   Auto Display brightness and backlight adjustment
- Remote Control sensor
- Selectable wide-screen mode (Just/Full/Cinema/Zoom/Nomal)
   Wired Headphone mini jack 2

ITALY/B, G, H, K: VHF A-H2ch, UHF: 21-69ch, UK/IRE: UHF 21-69ch, OIRT/G,H, F, K: R1-R12ch, UHF21-69ch

Dome Light

- Colour system:

TV- PAI

## GEX-6100TVP

OPTIONAL TV TUNER FOR AVR-W6100

- PAL TV Tuner
   24 Station Presets (12TV1/12TV2) by BSSM (Best Station Sequential Memory)

## **System Features**

Country setting

Picture Color/Sharpness adjustment

## **System Connection Features**

- For AVR-W6100 cable output · Antenna included

## Specifications

TV Tuner: Reception channels/TV system:

- CCIR/B, G, H, K: VHF 2-12ch, UHF: 21-69ch,
- 1 RCA AV Input (PAL/SECAM\*/NTSC Video & L + R Audio)
- on the control panel 2 Independent Headphone outputs with volume control (AV out 1, AV out 3) on the control panel
- Audio/Video independent selector for 3 Video Source
- Slim profile control panel
- \* Cannot accept SECAM L, as used in France.

## CD-VS33

XDV-P9-II

AV SELECTOR

- 3 RCA AV Outputs (PAL/SECAM\*/NTSC Video & L + R • 2 RCA AV Inputs (PAL/SECAM\*/NTSC Video & L + R Audio) in hide-away box

- Analogue IP-Bus output for front + RCA output for rear

6-Disc DVD-Video/VideoCD/CD Plaver

# MUITI-DVD PLAYER

WITH DOLBY DIGITAL/DTS DIGITAL OUTPUT

- Built-in MPEG 2/1 decoder • 24-bit D/A Converter Stand-alone use with optional remote and remote sensor for rear AV
- Optical digital output for Multi-Channel AV Headunit
- (DTS/Dolby Digital/Dolby Pro Logic/Linear PCM)
- RCA Video Output (Front + Rear)
- GUI control with new OSD Region Number: 2

## SDV-P7

SINGLE DVD PLAYER WITH DOLBY DIGITAL/DTS DIGITAL OUTPUT

- DVD-Video/VideoCD/CD Plave
- Built-in MPEG 2/1 decoder
   24-bit D/A Converter
   DVD-R/RW<sup>1</sup> and CD-R/RW<sup>2</sup> playback\*

- . Stand-alone use with standard remote and remote sensor for rear AV entertainment
- GUI control with new OSD
   Optical digital output for multi-channel AV Headunit (DTS/Dolby Digital/Dolby Pro Logic/Linear PCM) IP-Bus input/output
- AV-Bus output
   Analogue IP-Bus output for front + RCA output
   (L + R audio) for rear entertainment
- RCA video output (Front + Rear)
- Joystick remote controller
   1-DIN or hide-away installation

- · Flap design with removable front panel White display illumination
   Region Number: 2
- \* Can play DVD-R/RW discs recorded in Video format (Video Mode) only. Cannot play DVD-RW recorded in Video recording format (VR Mode).

## SE-IRM250

INFRARED HEADPHONE

- Cordless Stereo Headphone

Infrared Type
 Noise Mute Function

Volume Ajustment Included
 Automatic Power Off Function

HIGH POWER DVD/MP3 TUNER

## Tuner

- Adaptive RDS (PI, PS, AF, TP/TA)
   PTY (Search and Alarm)

DVH-P5000MP

- News interrupt feature
- Radio Text
   D4Q Digital AM/FM Tuner
   BSA (Best TP Station Auto Search)
- High speed PLL Synthesiser tuner
   PNS (Pulse Noise Suppressor)
- 24 Presets BSM (Best Stations Memory)
- DVD/CD/MP3 Player
- DVD Video/Video CD/ MP3 CD Player
   DVD-R/RW¹ and CD-R/RW² playback • Region Number: 2
- 10-bit D/A converter (Video) • 24-bit D/A converter (Audio)

DVD Capabilities

• DVD-Video/Video CD Playback with Direct Search Chapter/Track/Title/Group,
Next/Previous, Fast Forward/Reverse, Pause, Track/Chapter Repeat, Condition
Memory (30 discs), Playback Control (Video CD only), Direct Search

- Title/Group/Chapter/Track/Time
- CD Capabilities

   CD Playback with Track Scan/Pause/Repeat, Random Play, Disc Title Memory, CD Text, List Search
- 96 kHz/24-bit DAC
- 24-bit D/A Converter
- Fast forward/reverse
   Track Search/Scan/Repeat
   Track/Manual search
- Last position memory
   Disc Title Memory
- **Audio Visual**
- IP-Bus input
- Optical digital output
   RCA Audio output (L + R) for rear entertainment
   RCA Video output (Front + Rear)

- MOSFET 50 W x 4 max. output power (watts)
   4 x 27 W DIN output power watts (DIN 45324, +B = 14,4 V)
   Built-in EEQ (Easy EQ) Plus system with 5-mode factory preset equaliser,
  2 custom preset equalisers, 3-band parametric equalise, 5ource Equalisation
- Memory, 3-mode Loudness, and HPF/LPF Network
   SFEQ (Sound Focus Equaliser)
- Direct Sub Drive

- L/R level meter Level Indicator
  - Loudness
  - Source Level Adjuster

  - 2 RCA Pre-Outs (Front +Subwoofer or Non Fading)

- Multi-CD Control
- ITS (Instant Track Selection) for MCD
   Source TV Control DAB Tuner Control
- Source DVD Control
   External unit control via IP-Bus (2)
   AUX-In (with optional CD-RB20)
- Standard remote control
- ISO Connector
- Digital clock
   Multi-colour LCD Display Flap-type Front Panel
- Removable Front Panel Cellular telephone auto muting
- Flexible angle installation (o 30°)
- Even if a DVD-R(W) disc is recorded in Video format (Video Mode), it may not be playable as a result of scratches, dirt or characteristics specific to the disc, or dirt or condensation on the pickup lens. DVD-R(W) discs that haven't been finalized, cannot be played. In general, discs recorded in the current format using a PC (personal computer) are playable. However, certain settings and application software environments may not be able to play these discs. Resea ask your applications on software sales agent for more details.

  22 ble finalised must one CPA(W) discs to physical, is now more ask. CPA(W) discs more profit pack ask corrections of play back corrections. CPA(W) discs more play back corrections of the profit pack correction of th

# features double-DIN and cassette tuners/MCD

Features	FH-P4100R	KEH-P7020R	KEH-P6020R KEH-P6020RB	KEH-P4020R KEH-P4023R	KEH-P2030R KEH-P2033R	KEH-1033 KEH-1032
UNER						
daptive RDS (PI, PS, AF, TP/TA)	•	•	•	•	•	
TY (Search and Alarm) lews interrupt feature	•	•	•	•	•	
adio Text	l	· · ·	•			
RC FM	ARC 5	ARC 5	ARC 5	ARC 5	ARC 5	ARC 5
SA (Best TP Station Auto Search)	•	•	•	•	•	Ancs
igh speed PLL Synthesiser tuner	•	•	•	•	•	
	•	•	•	•	•	•
NS (Pulse Noise Suppressor) o. of presets	24	24	24	18	18	24
SM (Best Stations Memory)	•	•	•	•	•	•
ASSETTE						
ito-Reverse	•	•	•	•	•	•
Il Logic Control	•	•	•	•		
olby NR	В	В	AUTO			
etal 70's Tape Selector usic Search	AUTO •	AUTO •	AUTO •	•		
ank Skip and Repeat	<del>- :</del>	•	<del> </del>	•		
dio Intercept	1 :	· ·	•	•	•	•
aying Time Tape Counter	·	· ·	<del> </del>	•	•	-
ad *	•	•	•	•		
PLAYER						
ersampling digital filter	8x					
A Converter	1 bit					
ick Search/Scan/Repeat	•					
ndom Play	•					
st position memory	•					
sc Title Memory Text						
-R Playback	·					
I-RW Playback	·					
IDIO						
ax. output power (watts)	MOSFET 50 W x 4	MOSFET 50 W x 4	MOSFET 50 W x 4	MOSFET 50 W x 4	4 x 40	4 X 40
Noutput power	4 X 27	4 X 27	4 X 27	4 X 27	4 X 22	4 X 22
atts: DIN 45324, +B = 14.4 V)						
ilt-in DSP	•					
Q Plus	•	•	•			
Q	-			•		
node preset equaliser (3)	•	•	•	•		
stom preset equaliser band parametric equaliser	2	•	2	1		
oand equaliser	l	•	•	•		
urce Equalisation Memory		•	•	<u> </u>		
lectable Loudness (3-mode)	•	•	•	•	•	•
lectable FIE (Front Image Enhancer)				•		
F	•	•				
F	•	•	•			
EQ (Sound Focus Equaliser)		•	•			
L (Automatic Sound Leveliser)		•				
+ C b D-:		•	•			
rect Sub Drive ectrum analyser	<del>- :</del>	•	•			
R level meter	l .	•				
B (Bass/Treble booster)					•	•
mode Loudness					•	•
urce level adjuster	•	•	•	•	•	•
der	•	•	•	•	•	•
A Pre-Out	2 (F + R	3 (F + R + S/W	2 (F + R	1	1	
TAIFDA!	or S/W)	or Non Fad)	or S/W)			
NERAL	-					
Ilti-CD Control/CD Ready	•	•	•	•	•	
6 (Instant Track Selection) Sc Title Memory	·	•	<del> </del>			
Text	<del>- :</del>	•	<del> </del>			
gital Compression/Dynamic Bass Emphasis	•	•	•			
urce TV Control	•	•	EXT	EXT	EXT	
urce CD Control	•	•	EXT	EXT	EXT	
B Tuner Control	EXT	•	EXT	EXT	EXT	
ernal unit control via IP-Bus	2	2	1	1	1	
X-In (with optional CD-RB20)		•	•	•		
A III (WAII OPTIONAL CD-ND20)	•	•	•	•		
mote Control Ready	•		•	•		
indard remote control		•				
) Connector	•	•	•	•	•	•
play illumination	BLUE	OEL-	MULTI/	MULTI	GREEN/RED	GREEN/RED
		BLUE	BLUE (2)			· · · · · · · · · · · · · · · · · · ·
al button illumination	(5)	•	•			
tary volume		Pop-up	Pop-up			
p-type Front panel		•	•	•		
movable Front Panel	• (1)	• (1)	• (1)	•	•	•
Ilular telephone auto muting	•	•	•	•		
nds-free ready	l	•	•			
ice Control with optional CD-VC6o/65	•		•			
ne & Access Source			•			
ne & Access Source ne & Access Radio Station	<del>- :</del>		<del> </del>			

\* SAT TWIN-CUT (1) With safety warning beep (2) Multi-colour illumination: KEH-P6020R Blue illumination: KEH-P6020RB (3) Superbass/Powerful/Natural/Vocal/Flat (4) Name & access track or disc names with CDX-P1270, CDX-P670 ('01 models), CDX-P1220, CDX-P650 and CDX-FM657 ('99 models). Name & access disc names only with CDX-P1230S, CDX-P630S ('98 models), CDX-P1220S and CDX-P620S ('96 models). Older Pioneer Multi-CD players cannot be connected to the CD-VC60/65. (5) FH-P4100R: VW Red button illumination.

Features Multi-CD Players	CDX-P1270	CDX-P670	CDX-FM657
CD PLAYER			
Oversampling digital filter	8x	8x	8x
D/A Converter	1-bit	1-bit	1-bit
Fast forward/reverse	•	•	•
Track Search/Scan/Repeat	•	•	• (1)
Track/Manual search	•	•	•
Random Play	• (2)	• (3)	• (3)
ITS (Instant Track Selection)	• (4)	• (4)	• (4)
ADPS (Automatic Disc Programming Selection)	•	•	•
Last Position Memory	•	•	•

Features Multi-CD Players	CDX-P1270	CDX-P670	CDX-FM657
Disc Title Memory	•	•	•
CD Text	•	•	•
CD-R Playback	• (5)	• (5)	•
CD-RW Playback	• (5)	• (5)	•
GENERAL			
IP-Bus Output	•	•	•
Standard Remote Control			•
Display illumination			AMBER
Flexible angle installation	0 – 90°	0 - 90°	0 - 90°
Voice Control	• (6)	• (6)	• (6)

(1) Without scan (2) Overall 12 discs (3) Overall 6 discs (4) With FH-P4100R, DEH-P9400MP, DEH-P7500MP, KEH-P7020R (5) With Skip Play (6) With P-series headunit and optional CD-VC60/65

# features CD tuners

Features	DEH-P90DAB	DEH-P9400MP	DEH-P8400MP	DEH-P7500MP	DEH-P77MP	DEH-P6500R	DEH-P5500MP DEH-P5530MP	DEH-P4500R	DEH-P3500MP	DEH-P2500R DEH-P2530R DEH-P2500RB	DEH-1500R DEH-1530R
TUNER											
Adaptive RDS (PI, PS, AF, TP/TA)		•	•	•	:	•	· :	· :	•	•	•
PTY (Search and Alarm) News interrupt feature	<b>₩</b> :	<del>:</del>	<del>- :</del>	<del>:</del>	<del>:</del>	<u>:</u>	<del></del>	<del></del>	•	•	
Radio Text		•	•	•	•	•	•	•			
ARC FM	ARC 5	ARC 5	ARC 5	D4Q	D4Q	D4Q	D4Q	D4Q	D4Q	D4Q	D4Q
BSA (Best TP Station Auto Search)	•	•	•	•	•	•	•	•	•	•	•
High speed PLL Synthesiser tuner	•	•	•	•	•	•	•	•	•	•	•
PNS (Pulse Noise Suppressor)	•	•	•	•	•	•	•	•	•	•	•
No. of presets BSM (Best Stations Memory)	24 •	24	24	24	24	24 •	24 •	24	24	24	18
Built-in DAB Tuner											
CD PLAYER											
Oversampling digital filter D/A Converter	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit	8x 1 bit
Fast forward/reverse	•	•	•	•	•	•	•	•	•	•	•
Track Search/Scan/Repeat	• (6)	•	•	•	•	•	•	•	•	•	Search/Repeat
Track/Manual search Random Play	<b>.</b>	<u>:</u>	•	<del>:</del>	<u>:</u>	<u>:</u>	•	<del>:</del>	•	•	•
Last position memory	₩ ÷	<del>.</del>	•	<del>.</del>	· ·	<del>.</del>	· ·	<del> </del>	<del>.</del>	•	•
Disc Title Memory	•	•	•	•		•	•	•	•	•	
CD Text	•	•	•	•	•	•	•	•	•		
CD-R Playback CD-RW Playback	<u> </u>	•	<u> </u>	<u> </u>	<u> </u>	<u>:</u>	<u> </u>	<del>:</del>	<u> </u>	•	<u>:</u>
Compressed Audio Playback	1	MP3/WMA (2)	MP3/WMA (2)	MP3/WMA (2)	MP3/WMA (2)	-	MP3/WMA (2)		MP <sub>3</sub> (2)		
AUDIO	MOCCET					MOCETT		MOCETT		MOCETT	
Max. output power (watts) DIN output power (watts: DIN 45324, +B = 14.4 V)	MOSFET 50 W x 4	4 X 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	MOSFET 50 W x 4 4 x 27	4 X 45 4 X 25
Built in DSP	-	•									
Graphic equaliser Listening Position Selector	-	13-band									
Preset equaliser		5-mode									
User preset equaliser		2-mode									
Source Equalisation Memory Sound Field Control	-	4-mode									
Time Alignment	1	4-mode •									
Auto EQ		•									
2-mode Octaver		•									
BBE HPF	-	<u>:</u>									
LPF	1	•									
Digital ASL (Automatic Sound Leveliser)		•									
3-way network EEQ Plus	₩.	•	•	•	•	•	•	•			
EEQ	l		•	•	•	•	•		•	•	•
5-mode preset equaliser (4)			•	•	•	•	•	•	•	•	•
Custom preset equaliser	1		2	1	1	1	1	1	1	1	1
3-band parametric equaliser Source Equalisation Memory	<u> </u>		•	•	•	•	•	<u> </u>	•	•	•
Selectable Loudness	•	•	•	•	•	•	•	•	•	•	•
Selectable FIE (Front Image Enhancer)	•								•	•	•
HPF	<b>.</b>		•	•	•	•	•	•			
LPF	₩ ÷		· ·	<del>.</del>	· ·	<del>.</del>	· ·	<del>.</del>			
EQ-EX				•		•	•	•			
SFEQ (Sound Focus Equaliser)			•	•		•	•	•			
ASL (Automatic Sound Leveliser)	•	•	•	•	•	•					
Direct Sub Drive			•	•	•	•	•				
Spectrum analyser	1	•	•	•		•					
L/R level meter			•	•							
Level Indicator Loudness	1	<u>:</u>	•			<u>:</u>	•	<del>:</del>	•	•	•
Source level adjuster	·	<del>.</del>	<del>.</del>	•	•	<del>.</del>	<del> </del>	•	<del> </del>	<u>:</u>	<del> </del>
Fader	•	•	•	•	•	•	•	•	•	•	•
RCA Pre-Out	3 (F+R+S/W or Non Fad)	3 (F + R + Non Fad)	3 (F + R + S/W or Non Fad)	3 (F + R + S/W or Non Fad)	3 (F + R + S/W or Non Fad)	2 (F + S/W or Non Fad)	2 (F + S/W or Non Fad)	2 (F + S/W or Non Fad)	2 (F + R)	1	1
High Voltage Output	or Non rau)	+ Noil rau)	or Norrau)	oi Noii rau)	or Noil Fau)	or Horriau)	or non rau)	or monrauj	(i + K)		
GENERAL											
Multi-CD Control CD Text	•	•	•	<del>:</del>	<u> </u>	•	•	<del>:</del>	•	•	
Source TV Control	<del>⊩:</del>	<del>:</del>	<del>:</del>	<del>-</del>	•	<del>:</del>	· ·	EXT	•	<del>:</del>	
DAB Tuner Control		•	•	•	•	•	EXT	EXT	EXT	EXT	
Source DVD Control External unit control via IP-Bus	-		EXT	•	EXT	•	EXT	EXT	EXT	EXT	
AUX-In (with optional CD-RB20)	•	•	•	•	•	•	•	•	•	•	
Standard remote control	•	•	•								
Remote Control Ready Hard-wired remote input	-			•	•	•	•	•			
ISO Connector		•	•	•	<del></del>	•	•	•	•	<u>:</u>	-:
Display illumination	OEL- MULTI	OEL- BLUE	OEL-BLUE LCD	OEL-WHITE	WHITE	OEL- WHITE	MULTI	MULTI	WHITE	WHITE/ BLUE (3)	WHITE
. ,	•		•	•							
Dual button illumination					•	Pop-out	Pop-out	Pop-out			
Dual button illumination Soft key operation			•	Pon-out							
Dual button illumination		Pop-out	•	Pop-out	•			.,			
Dual button illumination Soft key operation Rotary volume Auto-flap mechanism Flap-type Front Panel		Pop-out  •	•	•	•	•	•	•	•	•	
Dual button illumination Soft key operation Rotary volume Auto-flap mechanism Flap-type Front Panel Removable Front Panel	• (1)	Pop-out • • (1)	• (1)	• (1)	• (1)	• (1)	• (1)	• (1)	• (1)	• (1)	•
Dual button illumination  Soft key operation Rotary volume Auto-flap mechanism Flap-type Front Panel Removable Front Panel Cellular telephone auto muting		Pop-out  •	•	•	•	•	•	•			•
Dual button illumination  Soft key operation Rotary volume Auto-flap mechanism Flap-type Front Panel Removable Front Panel Cellular telephone auto muting Speaker input for hands-free Flexible angle installation	• (1) • 0 – 60°	Pop-out  • (1)  • 0 - 60°	• (i) • 0 – 60°	• (1)	• (1)	• • (1)	• (1)	• (1)	• (1)	• (1)	
Dual button illumination  Soft key operation  Rotary volume  Auto-flap mechanism  Flap-type Front Panel  Removable Front Panel  Cellular telephone auto muting  Speaker input for hands-free Flexible angle installation  Voice Control with optional CD-VC6o/65	• (1) • 0 – 60°	Pop-out  • (i)  • 0 - 60°  •	• (i) • 0 - 60°	• (1)	• (1)	• (1)	• (i) •	• (1)	• (1)	• (1)	•
Dual button illumination  Soft key operation Rotary volume Auto-flap mechanism Flap-type Front Panel Removable Front Panel Cellular telephone auto muting Speaker input for hands-free Flexible angle installation	• (1) • 0 – 60°	Pop-out  • (1)  • 0 - 60°	• (i) • 0 – 60°	• (1)	• (1)	• (1)	• (i) •	• (1)	• (1)	• (1)	•

<sup>\*</sup> SAT TWIN-CUT (1) With safety warning beep (2) With Repeat Play (File/Current Folder) (3) White illumination: DEH-P2500R, DEH-P2530R Blue illumination: DEH-P2500RB (4) Superbass/Powerful/Natural/Vocal/Flat (5) Name & access track or disc names with CDX-P1270, CDX-P670 ('01 models), CDX-P1250, CDX-P650 and CDX-FM657 ('99 models). Name & access disc names only with CDX-P1230S, CDX-P630S ('98 models), CDX-P1220S and CDX-P620S ('96 models). Older Pioneer Multi-CD players cannot be connected to the CD-VC60/65. (6) Without scan

# navigation and AV/PRS features

## DEQ-P7000

## MULTI-CHANNEL DIGITAL SIGNAL PROCESSOR

- 5.1 Multi-Channel Surround capability:
   Linear PCM/Dolby PRO-LOGIC/Dolby Digital/DTS Decoder
   6-channel DAC and built in DSP

- (Musical/Drama/Action/Jazz/Hall/Club)

- Digital sound Field Control (SFC) for Multi channel Sources

- Optimum sound reproduction for in-car environment:
   Listening Position Selector with rear position
  (FR, FL, RR, RL, R, ALL, OFF)
- Time Alignment
- (Sedan/Wagon/Minivan/SUV/Custom/OFF)
  Optimum downmix for nomal speaker lay-out
- MOSFET 5 x 50 W max. Output power
- IP Bus In/Out
- 6 RCA pre-outs (FR + FL + RR + RL + Center + Subwoofer)
   Parametric Equaliser (Flat/Super Bass/Powerful/Natural/Vocal/Custom1/Custom2)
- 24 bit D/A converter
- · Cellular telephone muting

## GEX-P6400TVP

PAI TV Tuner

## HIDE-AWAY TV TUNER

- System Features
- Country setting
   4 Channel diversity antenna system (with optional antenna kit AN-G3)
   Card-type remote control

## **System Connection Features**

- IP Bus Input/Output (controlled by AV Headunit, AV System Master and selected no. of Pioneer IP Bus headunits)

  1 RCA AV Output (PAL/Video & L + R Audio) for rear display

## Specifications:

TV Tuner:

- Reception channels/TV system: CCIR/B, G, H, : VHF 2-12ch, UHF: 21-69ch, ITALY/B, G, H: VHF A-H2ch, UHF: 21-69ch, UK. Ireland/I: A-Kch. UHF 21-69ch. OIRT/D, K: R1-R12ch, UHF21-69ch
  Color system:
  TV: PAL compatible

## GEX-P7000TVP

## HIDE-AWAY TV TUNER

• 12 Station presets (12TV1/12TV2) by BSSM (Best Station Sequential Memory)

- PAL, SECAM\* TV Tuner
   24 Station Presets (12 TV1/12 TV2) by BSSM (Best Station Sequential Memory)

## **System Features**

- Country setting
- 4 Country groups: CCIR, Italy, UK, OIRT)
  4 Channel diversity antenna system (with optional antenna kit AN-G3)
- Card-type remote control
   Picture Colour/Sharpness adjustment

## **System Connection Features**

- IP-Bus input/output (controlled by AV System Master and selected Pioneer IP-Bus headunits)

- and selected Pioneer IP-Bus Readunits)

   RGB output for front display (AVX-P7300PV),

  AV-P7000CD, AVX-7300, AVD-W6010, AVD-W6000)

   RGB input for Navigation system or AV System Master

   2 RCA AV inputs (PAL/SECAM\*/NTSC\*\* Video & L + R
- Audio) for add-on game consoles, VCR's and others
- 1 RCA AV output (PAL/SECAM/NTSC\*\* Video & L + R Audio) for rear display

   Independent Audio Video Selector for front display
- Independent Video Source Selector for rear display

## Specifications

TV Tuner:

- Reception channels/TV system: CCIR/B, G, H, K: VHF 2-12ch, UHF: 21-69ch, ITALY/B, G, H, K: VHF A-H2ch, UHF: 21-69ch, UK/I: UHF 21-69ch.
- OIRT/G H D K: R1-R12ch IIHF21-60ch
- Colour system: TV: PAL/SECAM/NTSC compatible
- Video: PAL/SECAM/NTSC compatible
- \* Reception channels: note that SECAM tuner cannot receive SECAM L, as used in France.
- The Video output does not feature a conversion function between PAL, SECAM or NTSC.

## DEH-P900HDD

## HARD DISC DRIVE HEADUNIT

- Adaptive RDS (PI, PS, AF, TP/TA)
   PTY (search & alarm)
- News interrupt feature
- News interrupt reature
  ARC 5 FM
  BSA (Best TP Station Auto Search)
  High speed PLL Synthesiser tuner
  PNS (Pulse Noise Suppressor)

- 24 Presets BSM (Best Stations Memory)

- Fast Forward/Reverse Track Search/Scan/Repeat Track/Manual Search
- Random Play
   Last Position Memory
- Disc Title Memory
   CD Text
   CD-R/RW Playback
   CD-ROM

## **Hard Disc Drive**

- Play list folder: rec. date (all)/Digital/Analogue/Artist/Custom

- 6 custom play list
   Scan, Repeat (Track/Play list/Play list folder), Random play, Pause
   Pre-installed Gracenote CDDB®
- Title input
- Digital/Analogue Recording (w/o Tuner)
- 132 kbps/105 kbps recording bit rate
   ATRAC3 Encode/Decode
- Check IN/OUT (Memory Stick)

- MOSFET 50 W x 4 max. output power (watts)
   4 x 27 W DIN output power (watts: DIN 45324, +B = 14.4 V)
   Built-in DSP with13-band Graphic Equaliser, Listening Position Selector, 5-mode Preset Equaliser, 5-mode Preset Equaliser, 5-mode Preset Equaliser, 5-mode Preset Equaliser, 5-worde Equalisation Memory, 4-mode Sound Field Control, Time Alignment, Auto EQ. 2-mode Octaver, BBE, HPF, LPF
   Digital ASL (Automatic Sound Leveliser)
   ASL (Automatic Sound Leveliser)
   ASL (Automatic Sound Leveliser)

- Spectrum analyser
   Level indicator
   Loudness
   Source level adjuster

- Fader
- 3 gold-plated RCA pre-outs (Front + Rear + Subwoofer)

## General

- Multi-CD Control
   ITS (Instant Track Selection)
   Disc Title Memory
- CD Text
- Digital Compression/Dynamic Bass Emphasis
   Source TV Control
   DAB Tuner Control
- External Unit Control via IP-Bus
- AUX-In (with optional CD-RB2o)
   Standard remote control
   ISO Connector
- Digital clock

- OBL-Blue display illumination
   Soft Key Operation
   Pop-Out rotary volume
   Flat-type Front Panel
   Removable Front Panel
- Cellular telephone autor uting
   Flexible angle installation (o 30°)
   Voice Control with optional CD-VC60/65 (Name & Access Source/Name & Access Accided Station/Name & Access MCD Track or Disc)

## MagicGate Memory Stick

- 1 Slot Track scan/Repeat/Random Play/Pause

## **GEX-P700DAB**

## HIDE-AWAY DAB TUNER

## DEH-P90DAB

- CD/DAB TUNER
- Auto seek Ensemble seek
- Service up/down
   Switching between Primary/Secondary services
- Switching between Finlingly Sectional systrices
   18 Services preset memory
   Preset recall, channel up/down, band switch (DAB 1/2/3)
   Label display selection (Ensemble/Service/Service Component/PTy)
   Dynamic Label Segment Headline
   PTy selection/search\*

- Available Pty List\*
   Preset List Search\*
   Announcement support (AS): Alarm, Traffic, News, Transport, Warning, Weather, Event, Special Event, Information, Finance\*
- DLS (Dynamic Label Segment) scrolling
   Service Following (SF): DAB-DAB and DAB-RDS\*+
   Function settings menu (AS/SF/Primary-Secondary/DLS)
- \* Not available in Germany. For the GEX-P700DAB, no External Control (Full Control only).

## DEX-P9R

## COMPONENT CD/RDS

- RDS (PI, PS, AF, TP/TA), PTY (Search and Alarm),
- News Interrupt feature and Radio Text
   High Speed PLL ARC5 Synthesiser tuner with BSA (Best TP Station Auto Search), BSM (Best Stations Memory) and PNS (Pulse Noise Suppressor)
- 24-Station Presets

- 24-bit D/A Converter with 8 times Oversampling Digital filter
- Fast forward/reverse Track Search/Scan/Repeat
- Track/Manual search
- Random Play
   Last Position Memory Disc Title Memory
- Audio Separate Bass/Treble Source Level Adjuster
- CD-R/RW playback with Skip Play
- Fader 3 Gold-plated RCA pre-outs (Front + Rear + Non Fading)
- High Voltage output
   IP-Bus input/output
   Optical input/output
- General . Multi-CD Control with Disc Title Memory and CD Text
- Source TV Control
   DAB Tuner Control Source DVD Control . External Unit Control via IP-Bus (2 units)
- AUX-In (with optional CD-RB20)
   Slide-type Remote Control

- Digital Clock
   OEL blue-colour display illumination Display Off
- Auto-flap mechanism
   Removable front panel with safety warning beep
   Cellular telephone auto muting Flexible angle installation (o – 60°)
- Voice Control with ontional CD-VC60/6s
- (Track or Disc)
   Copper-plated chassis
   Aluminium finished front panel

# DEQ-P9

DIGITAL PREAMP/EQUALISER

- 31-Band L/R independent graphic equaliser
   (1/3 oct) with level control (0.5 step, ± 12 dB)
   4-Way independent L/R crossover network (High, Mid,
- Crossover frequency: 20 Hz 20 kHz (1/3 oct)
   Slope: 0\*, -6, -12, -18, -24, -30, -36 dB/oct
   Time Alignment for clear sound focus Listening Position selector (FR/FL/F/OFF)
- 24-bit Burr-Brown D/A converters
   High performance 8 times oversampling digital filter
- High Voltage output
   Gold-plated 8-channel RCA output (High/Mid/Low/Subwoofer)
   Parametric Bass/Treble

- Copper-plated chassis Installation Kit \* Not available for HPF of high mode.
- Optical Input for connection with DEX-PoR
  - Flectronic Volume

• Gold-plated Power Screw Terminals

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