



***born to play***

*Edition three*





**The Bangkok  
X-program project**

*Here is an extremely nice X-program Toyota demo car built in the country we all love for their friendly people, nice weather and beautiful beaches.*



## *A new Car audio brand is born - "born to play"*

*We have developed the X-program for those who love to listen to music at high levels - with full control and preserved sound quality. X-program is designed and engineered by DLS in Sweden.*

### **TWO AMPLIFIER LINES**

**X-A-series amplifiers** are using class AB technology and come in four different models. There is a 1-channel, 2-channel, 3-channel and a 4-channel in a modern slim design.

**X-D-series amplifiers** are using class D technology and come in 7 different models. Choose from two different 1-channel mono amplifiers, two 2-channel, one 3-channel, one 4-channel and one 5-channel.

### **SUBWOOFERS**

There are two different subwoofer lines, the **WE-series** for the High power guys, and the **WB-series** for "normal" users.

### **FIVE LEVELS OF SPEAKER KITS**

#### **2 / 3-WAY SYSTEMS**

All series include a 5,25" as well as a 6,5" 2-way kit. There is also a 4" kit in the SC-series. If you are fond of 3-way systems we have included one such system in the SC-series. It has a 6,5" woofer, a 4" mid and a 20 mm tweeter.

**SA-series** is the top level speakers with exclusive sandwich cone, high power magnet and 28 mm super tweeter. The copper colored phase plug gives the speakers an exclusive touch.

**SB-series** is the next level and they are designed for heavy use. They can handle loud music without losing control thanks to the high power magnets and the strong aluminium cone body. Uses the same 28 mm tweeter as the SA-series.

**SC-series** are mid class speakers with good crossovers and a 16 or 20 mm tweeter.

**SP-series** are rather similar to SC but with smaller installation depth. Also with the 20 mm tweeter.

**SD-series** are X-program speakers affordable to everyone. Small crossover boxes and a 16 mm tweeter.

### **COAXIALS**

Coaxial speakers in the **CB-line** is offered in 3 sizes, 5,25" (13 cm), 6,5" (16,5 cm) and the oval 6x9" speaker.

### **HIGH CLASS CROSSOVERS**

All models have crossovers of very high class. SA, SB, SC and SP-series have shiny red transparent filter boxes while the simpler SD-series has small and rather simple boxes. SA-series crossovers also include Ribbon air coils for best possible performance.

### **GRILLES**

Grilles are included in the SA and SB-series and X-WE series subwoofers, but for the other models grilles are accessories.



### X-A10

A nice looking analogue mono amplifier mainly designed for sub-woofer use but can also be used over the whole frequency range 20 Hz to 30 kHz. Gives out 300 RMS Watts @ 2 ohm speaker load. Equipped with a variable low pass filter, a fixed 25 Hz sub sonic filter and a 3-position high pass filter. High-level input with automatic start function, forget the line- and remote wires. Built-in fan for extra cooling.



### X-A20

A nice looking analogue stereo amplifier Gives out 2 x 70 RMS Watts @ 2 ohm speaker load. Equipped with a variable low pass filter, a fixed 25 Hz sub sonic filter and a 3-position high pass filter. High-level input with automatic start function, forget the line- and remote wires.



### X-A30

A nice looking analogue stereo amplifier Gives out 2 x 70 RMS Watts @ 2 ohm speaker load on the stereo channels and 1 x 180 Watt on the mono sub channel. Equipped with a variable low pass filter, a fixed 25 Hz sub sonic filter and a 3-position high pass filter. High-level input with automatic start function, forget the line- and remote wires.



### X-A40

A nice looking analogue stereo amplifier Gives out 4 x 70 RMS Watts @ 2 ohm speaker load. Equipped with a variable low pass filter, a fixed 25 Hz sub sonic filter and a 3-position high pass filter. High-level input with automatic start function, forget the line- and remote wires.

X-program	X-A10	X-A20	X-A30	X-A40
RMS Power output at 14,4 Volts, all channels driven:				
Number of channels	1	2	3	4
Power output in 4 ohm (0,1% THD)	200 W	2 x 50 W	2 x 50 W	4 x 50 W
Power output in 2 ohm (0,2% THD)	300 W	2 x 70 W	2 x 70 W	4 x 70 W
Power output 4 ohm bridged	-	1 x 140	1 x 140 W	2 x 140 W
Signal to noise ratio, A-weighted	>90 dB	>90 dB	>90 dB	>90 dB
Damping factor	>80	>80	>80	>80
Frequency response	20 Hz - 30 kHz	20 Hz - 30 kHz	20 Hz - 30 kHz	20 Hz - 30 kHz
Input impedance, low level	22 kohms	22 kohm	22 kohms	22 kohms
Input impedance, high level	220 ohm	220 ohm	220 ohm	220 ohm
High level input with auto start	yes	yes	yes	yes
Input sensitivity	0,25 - 5 V	0,25 - 5 V	0,25 - 5 V	0,25 - 5 V
Filter subsonic @ 25 Hz	Yes, built-in	Yes, built-in	Yes, built-in	Yes, built-in
Filter high pass, 3 position switch	Off / 70 Hz / 90 Hz	Off / 70 Hz / 90 Hz	Off / 70 Hz / 90 Hz	Off / 70 Hz / 90 Hz
Filter low pass, variable	50 - 250 Hz*	50 - 200 Hz*	50 - 100 Hz	50 - 100 Hz*

\*can be switched in/out

#### POWER CONSUMPTION, DIMENSIONS

Idle / max	0,8 A / 65 A	0,4 A / 35 A	0,7 A / 50 A	0,5 A / 50 A
Fuses	2 x 25 A	1 x 25 A	2 x 25 A	2 x 20 A
Dimensions (mm)	72 x 358 x 255	72 x 278 x 255	72 x 378 x 255	72 x 398 x 255
Dimensions (inch)	2,8 x 14 x 10	2,8 x 10,9 x 10"	2,8 x 14,9 x 10	2,8 x 15,7 x 10
Weight	3 kg / 6,6 lb	2,3 kg / 5 lb	3,2 kg / 7 lb	3,5 kg / 7,7 lb

## *X-program amplifiers - for music lovers*



### ***Analogue X-power***

*Full range analogue class AB amplifiers with a high sound quality!*

*High power output in a nicely designed cabinet. Affordable for everyone who wants to experience a new dimension in car sound.*

X-program amplifiers - for music lovers



**X-D20**

Small in size but very powerful with a nominal output of 2 x 200 Watts in 2 ohm load. With a 4 ohm mono bridge-connection, it puts out all of 400 Watts. Built-in low pass and subsonic filters for subwoofer use. Bass boost variable from 0 to +18 dB plus variable phase shift control.



**X-D30**

This is a three channel amplifier with a nominal output of 2 x 200 Watts + 1 x 330 Watts in 2 ohm load. Built-in high-pass, low-pass and subsonic filters. Variable phase control on sub channel. This is the perfect amplifier for most users.



**X-D25**

Extremely powerful with an output of 2 x 280 Watts in 2 ohm load. With a 4 ohm mono bridge-connection, it puts out all of 550 Watts. Built-in low pass and subsonic filters for subwoofer use. Bass boost variable from 0 to +18 dB plus variable phase shift control.



**X-D40**

A four channel high power amplifier with a nominal output of 4 x 180 Watts in 2 ohm load. With a mono bridge connection, it puts out all of 2 x 380 Watts. Built-in/switchable low and high pass filters. Bass boost 0 to +18 dB.

X-program	X-D10	X-D11	X-D20	X-D25
RMS Power output at 14,4 Volts, all channels driven:				
Number of channels	1	1	2	2
Power output in 4 ohm (0,1% THD)	180 W	400 W	2 x 120 W	2 x 180 W
Power output in 2 ohm (0,2% THD)	330 W	750 W	2 x 200 W	2 x 280 W
Power output in 1 ohm	590 W	1050 W		
Power output 4 ohm bridged	-	-	1 x 400 W	1 x 550 W
Signal to noise ratio, A-weighted	>95 dB	>100 dB	>100 dB	>100 dB
Damping factor	>100	>100	>100	>100
Frequency response	15 Hz - 350 Hz	15 Hz - 160 Hz	10 Hz - 35 kHz	10 Hz - 35 kHz
Input impedance, low level	33 kohms	10 kohm	33 kohms	33 kohms
Input impedance, high level	1 kohm	100 ohm	1 kohm	1 kohm
High level input with auto start	yes	yes	yes	yes
Line output	yes	-	yes	yes
Input sensitivity	0,3 - 6 V	0,15 - 5 V	0,3 - 6 V	0,3 - 6 V
Bass boost adjustable gain	0 - 18 dB	-	0 - 18 dB	0 - 18 dB
Phase control continuously	0 - 180 degrees	0 - 180 degrees	0 - 180 degrees	0-180 degrees
Filter high pass / subsonic	built in	15 - 50 Hz / 24 dB	15 - 150 Hz*	15 - 150 Hz*
Filter low pass	50 - 500 Hz	15 - 150 Hz / 24 dB	50 - 500 Hz*	50 - 500 Hz*

\*can be switched in/out

**POWER CONSUMPTION, DIMENSIONS**

Idle / max	1,2 A / 50 A	1,5 A / 120 A	0,9 A / 25 A	1,6 A / 50 A
Fuses	2 x 25 A	4 x 30 A	1 x 25 A	2 x 25 A
Dimensions (mm)	50 x 298 x 250	50 x 430 x 250	50 x 258 x 250	50 x 298 x 250
Dimensions (inch)	2 x 11,8 x 10	2 x 16,93 x 9,84"	2 x 10,1 x 10	2 x 11,8 x 10
Weight	3,2 kg / 7 lb	5,3 kg / 11,7 lb	2,8 kg / 6,2 lb	3,5 kg / 7,7 lb



### X-D50

X.D50 is an amplifier suitable for full in-car entertainment systems. Nominal output of 4 x 80 Watts + 1 x 270 Watts on a mono sub channel. Built-in low-pass and high-pass filters. Variable phase shift control on the sub channel. Built-in protection circuits shut down the amplifier in the event of overloads. High level input with auto start.



### X-D10

Mono subwoofer amplifier with a nominal output of up to 590 Watts in 1 ohm load. Variable low pass and subsonic filters for subwoofers are built-in. Has a variable phase shift control, 0-180 degrees, Bass boost variable from 0 to +18 dB.

**Digital X-power**

*Full range digital class D amplifiers with a superb sound punch! Incredible power output from such a small package. With a height of not more than 50 mm - they easily fit even under the front seat of your vehicle.*



### X-D11

Mono subwoofer amplifier with a nominal output of up to 1050 Watts in 1 ohm load. Variable low pass and subsonic filters for subwoofers are built-in. Has a variable phase shift control, 0-180 degrees, Remote level control included.

#### X-D30

#### X-D40

#### X-D50

3	4	5
2 x 120 W + 1 x 220 W	4 x 100 W	4 x 80 W + 1 x 270 W
2 x 200 W + 1 x 330 W	4 x 180 W	4 x 130 W + 1 x 310 W
1 x 310 W	2 x 380 W	2 x 225 W
>100 dB	>100 dB	>100 dB
>100	>100	>100
10 Hz - 35 kHz	10 Hz - 35 kHz	10 Hz - 35 kHz
33 kohms	33 kohms	33 kohms
1 kohm	1 kohm	1 kohm
yes	yes	yes
-	-	-
0,3 - 6 V	0,3 - 6 V	0,3 - 6V
-	0 - 18 dB	-
0 - 180 degrees	-	0-180 degrees
50-500 Hz / Mono ch. /25 Hz*	50 - 500 Hz* /25 Hz	CH A+B / C+D: 15-250 Hz / 12 dB
Mono ch. 30 - 150 Hz*	50 - 500 Hz*	Mono ch: 30 - 150 Hz 18 dB + subsonic
1,8 A / 50 A	1,6 A / 50 A	2A / 60 A
2 x 25 A	2 x 25 A	2 x 30 A
50 x 338 x 250	50 x 318 x 250	50 x 399 x 250 mm
2 x 13,3 x 10	2 x 12,5 x 10	2 x 15,7 x 10"
4,1 kg / 9 lb	3,8 kg / 8,4 lb	4,7 kg / 10,4 lb



## X-program Subwoofers

**WB-series** subwoofers are affordable subwoofers with a powerful sound and attractive design. They come in three sizes. The 8" and 10" can be used in both sealed and vented enclosures, while the 12" prefers sealed enclosures.

### Recommended enclosures:

#### X-WB08:

Sealed: 18 litres / 0,63 cuft  
 Vented: 20 litres / 0,70 cuft  
 3" port, 20 cm long

#### X-WB10:

Sealed: 21 litres / 0,74 cuft  
 Vented: 25 litres / 0,88 cuft  
 3" port, 25 cm long

#### X-WB12:

Sealed: 31 litres / 1,09 cuft



Model	Woofer size	Impedance ohm	Nom. power	Peak power	Sensitivity	Magnet size	Inst. depth	Mounting hole
X-WB08	20 cm / 8"	4 ohm	150 W	600 W	88 dB	110 mm/4,3"	111 mm/4,4"	182 mm/7,16"
X-WB10	25 cm / 10"	2 ohm	200 W	800 W	87 dB	145 mm/5,7"	136 mm/5,4"	246 mm/9,68"
X-WB12	30 cm / 12"	2 ohm	250 W	1000 W	88 dB	155 mm/6,1"	152 mm/6"	278 mm/10,94"



## X-program Hi power Subwoofers

**WE-series** subwoofers with sturdy cast baskets and strong paper cones ready for high volumes and a punchy bass. The 3" aluminium voice coil ensures good power handling capacity.

A red glossy grille and a port kit is included in the price for these subs!

In 10" and 12" sizes for vented enclosures.

**X-WE10:**

Vented: 25 litres / 0,88 cuft  
3" port, 20 cm long

**X-WE12:**

Vented: 40 litres / 1,41 cuft  
4" port, 28 cm long



Model	Woofers size	Impedance ohm	Nom. power	Peak power	Sensitivity	Magnet size	Inst. depth	Mounting hole
X-WE10	25 cm / 10"	4 ohm	400 W	1200 W	88 dB	155 mm/6,1"	110 mm/4,3"	236 mm/9,3"
X-WE12	30 cm / 12"	4 ohm	500 W	1500 W	89 dB	180 mm/7,1"	123 mm/4,8"	286 mm/11,26"



## X-program SA-speaker line

**SA-series** are the top level speakers in X-program with exclusive sandwich cone, high power magnet and 28 mm super tweeter. The copper coloured phase plug gives the speakers an exclusive touch. Exclusive filters using ribbon coils and polypropylene capacitors creates a sound in top-class. Grilles are included in the kit.



Model	Woofer size	Tweeter size	Nom. power	Peak power	Sensitivity	Magnet size	Inst. depth	Mounting hole
X-SA52	13 cm/5,25"	28 mm/1,1"	80 W	300 W	86 dB	100 mm/4"	64 mm/2,52"	120 mm/4,72"
X-SA62	16,5 cm/6,5"	28 mm/1,1"	80 W	300 W	86 dB	100 mm/4"	73 mm/2,87"	145 mm/5,7"

## X-program SB-speaker line

**SB-series** are designed for heavy use. They can handle loud music without losing control thanks to the high power magnets and the strong aluminium cone body with a unique rubber surround. Uses the same 28 mm tweeter as the SA-series. Grilles are included in the kit.



Model	Woofer size	Tweeter size	Nom. power	Peak power	Sensitivity	Magnet size	Inst. depth	Mounting hole
X-SB52	13 cm/5,25"	28 mm/1,1"	100 W	400 W	85 dB	100 mm/4"	72 mm/2,83"	120 mm/4,72"
X-SB62	16,5 cm/6,5"	28 mm/1,1"	100 W	400 W	91 dB	110 mm/4,3"	72 mm/2,83"	145 mm/5,7"



## X-program SC-speaker line

**SC-series** are mid class speakers with crossovers of high quality and a newly developed paper cone that gives an incredibly good mid range sound. In combination with the 16 or 20 mm tweeter this series is the perfect choice for most people. Speaker grilles are accessories.



Model	Woofer /mid size	Tweeter size	Nom. power	Peak power	Sensi-tivity	Magnet size	Inst. depth	Mounting hole
X-SC42	10 cm/4"	16 mm/0,6"	50 W	200 W	84 dB	70 mm/2,75"	50 mm/2"	102 mm/4"
X-SC52	13 cm/5,25"	20 mm/0,8"	80 W	200 W	85 dB	80 mm/3,15"	65 mm/2,56"	120 mm/4,72"
X-SC62	16,5 cm/6,5"	20 mm/0,8"	80 W	200 W	87 dB	90 mm/3,54"	67 mm/2,64"	145 mm/5,7"
X-SC63	16,5 / 10 cm	20 mm/0,8"	60W	200 W	87 dB	90/70 mm	67/50 mm	145/102 mm

## X-program SP & SD-speaker lines

**SP-series** speakers fit in almost everywhere. The slim design is perfect if you are unsure whether the speaker fits in your door or not. High quality crossovers with air coils and a 20 mm tweeter guarantees a good sound in all installations. Speaker grilles are accessories.

**SD-series** are the most affordable using a paper cone that gives a really good midrange combined with a 16 mm tweeter. The filter boxes are small and easy to hide under the panels. The speakers come in 5,25" and 6,5" size. Speaker grilles are accessories.



Model	Woofers / mid size	Tweeter size	Nom. power	Peak power	Sensitivity	Magnet size	Inst. depth	Mounting hole
X-SP52	13 cm/5,25"	20 mm/0,8"	60 W	200 W	85 dB	90 mm/3,54"	47 mm/1,85"	120 mm/4,72"
X-SP62	16,5 cm/6,5"	20 mm/0,8"	60 W	200 W	91 dB	90 mm/3,54"	56 mm/2,20"	145 mm/5,7"
X-SD52	13 cm/5,25"	16 mm/0,6"	50 W	200 W	86 dB	80 mm/3,15"	53 mm/2,08"	120 mm/4,72"
X-SD62	16,5 cm/6,5"	16 mm/0,6"	50 W	200 W	86 dB	80 mm/3,15"	63 mm/2,47"	145 mm/5,7"



## X-program CB - coaxial line



**CB-series** are coaxial speakers with 2-way crossovers in a separate box for improved sound quality (not the 6x9" that use integrated crossovers). The 5,25" and 6,5" uses our newly developed paper cone that gives an incredibly good midrange sound. The 6x9" use a polypropylene cone. Speaker grilles are accessories except for the 6x9" model where they are included.

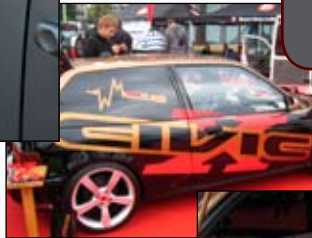


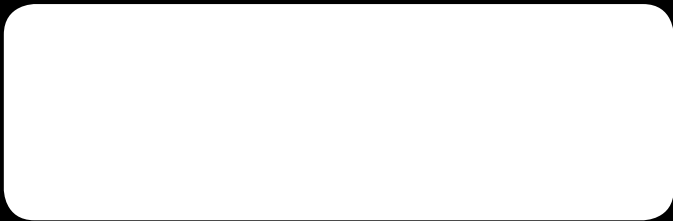
Model	Woofers / mid size	Tweeter size	Nom. power	Peak power	Sensitivity	Magnet size	Inst. depth	Mounting hole
X-CB25	13 cm/5,25"	16 mm/0,6"	50 W	200 W	86 dB	80 mm/3,15"	55 mm/2,2"	120 mm/4,72"
X-CB26	16,5 cm/6,5"	16 mm/0,6"	50 W	200 W	86 dB	80 mm/3,15"	65 mm/2,56"	145 mm/5,7"
X-CB692	6x9"	50 mm mid Piezo tweeter	80 W	300 W	88 dB	100 mm / 4"	75 mm/3"	150 x 220 mm 5,9 x 8,7"



**Various  
X-program projects**

*X-program is now being installed in cars all over the world. Here are some install photos.*





For more information please contact us at  
info@dls.se or visit [www.xprogram.com](http://www.xprogram.com)