

X-PROGRAM **Component systems** Owners manual

Thank you for buying an X-program speaker.

Please read this manual before installing the speakers.

Installation

Fasten the speakers properly in order to avoid bad sound or rattling. Use the screws coming with the speaker kit. If you feel the less unsure about how to do, let a professional installer do the job for you.

Bass driver:

Normally they will fit in the factory pre-made mounting holes in the door or dashboard. If you want an improved sound, reinforce with a baffle of MDF-board or similar.

Tweeter:

- 1. Install the tweeter in the pre-made place in the door of your
- 2. Or install the tweeter on the dashboard at the A-pillar facing inwards to a place between the front seats.
- 3. Or cut a hole in the door side using the mounting cup coming with the tweeter. Avoid placing tweeters where they will be blocked by objects in the interior of the car.

Crossover box:

Do not install the crossover boxes inside the doors, they can easily brake and moisture can damage the components. Make sure the cables don't get jammed causing short circuit to ground. This can damage the output circuits of the head unit or

amplifier. Fasten the box properly using wire ties or screws. Don't place them close to the internal wiring of the car, this may cause interference.

The crossovers must be used, if you connect without them the sound becomes bad and you will destroy the tweeters.

X-program is designed, engineered and distributed by:

DLS Svenska AB

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X-program speakers are produced in Taiwan



This product must be returned to the separate collection system for electronic products. Do not dispose this product together with general household

For models:

X-SA52 - 2-way 13 cm / 5,25" X-SA62 - 2-way 16,5 cm / 6,5" X-SB52 - 2-way 13 cm / 5,25" X-SB62 - 2-way 16,5 cm / 6.5" X-SC42 - 2-way 10 cm / 4"

X-SC52 - 2-way 13 cm / 5,25" X-SC62 - 2-way 16,5 cm / 6,5"

X-SP52 - 2-way 13 cm / 5,25"

X-SP62 - 2-way 16.5 cm / 6.5" X-SD52 - 2-way 13 cm / 5,25"

X-SD62 - 2-way 16,5 cm / 6,5"

Getting started

- Turn off the Audio System. It is also advisable to disconnect the negative (-) terminal of the vehicle battery.
- Before cutting drilling, or inserting any screw, check clearances on both sides of the planned mounting surface.
- Also check for any potential obstacles such as window tracks and motors, wiring harnesses etc.
- Always wear protective eyewear.
- Follow the instruction manual when connecting the crossover.

Running-in period

Allow the speakers to play for at least 15-20 hours. After this time the performance is correct.

Speaker phasing

To be sure to have the correct speaker polarity (phase) you can check this by using a 1,5 Volt battery.

Connect a cable from the battery plus-pole to the speaker plus, and a cable from the battery minus to the speaker minus.

If the speakers are correctly connected the speaker cone should move outwards on both right and left channel.

This check must be made on the cables going from the speakers, to the output terminals of your car stereo or amplifier.



Technical Assistance

For technical assistance ask the shop where the product was sold or the distributor in your very country.

Information can also be found on our WEB-site www.xprogram.com

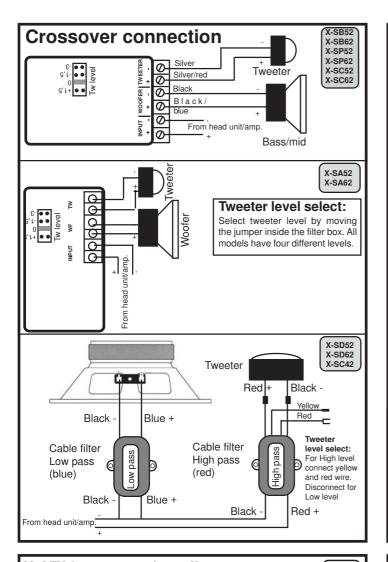
We follow a policy of continuous advancement in development. For this reason all or part of specifications & designs may be changed without prior notice.

Warranty service

This speaker is covered by warranty, depending on the conditions in the country where it is sold. If the speaker is returned for service, please include the original dated receipt with the product.

Speaker facts for X-program 2-way speaker systems

Model	Woofer size	Tweeter size	Nom. power	Peak power	Sensi- tivity	Magnet diameter	Installation depth	Mounting hole	Fs Hz	Qts	Vas litre	Z ohm
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"	64,2	0,54	5,57	4
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"	61,6	0,67	9,16	4
X-SB52	13 cm / 5,25"	28 mm / 1"	100 W	400 W	85 dB	100 mm / 4"	72 mm / 2,83"	120 mm / 4,72"	76,9	0,69	3,40	4
X-SB62	16,5 cm / 6,5"	28 mm / 1"	100 W	400 W	91 dB	110 mm / 4,33"	72 mm / 2,83"	145 mm / 5,7"	67,7	0,55	6,84	4
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"	73,8	0,62	2,82	4
X-SC52	13 cm / 5,25"	20 mm / 0,8"	50 W	200 W	85 dB	80 mm / 3,15"	65 mm / 2,56"	120 mm / 4,72"	70,8	0,66	4,39	4
X-SC62	16,5 cm / 6,5"	20 mm / 0,8"	60 W	200 W	87 dB	90 mm / 3,54"	67 mm / 2,64"	145 mm / 5,7"	46,6	0,48	18,6	4
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"	89,4	0,86	2,70	4
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"	66,7	1,03	8,20	4
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"	81,4	0,68	3,77	4
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"	46,8	0,56	17,66	4



X-ST16 - tweeter installs

X-ST16 can be mounted on the dashboard with the angled cup (1), or recessed in a doorside (3).

Surface install:

Angled mounting: Put the cable through the hole in the rear end of the angled cup. The tweeter is attached to the cup by pressing them together. Attach the cup to the surface with the double adhesive tape.



X-SD52

X-SD62 X-SC42

Recessed install:

You need a hole with a diameter of 43 mm/ 1,7". Put the two metal wings through the two tracks in the center of the cup, just as they lie picture, and attach them with the M4 screw and nut through the center hole. The cup is attached to the door side when the metal wings is pressed to the back side of the door. Put the tweeter into the cup with the cable going out through the bottom hole. Then attach by putting it into the cup.



X-ST16 tweeter facts

Size 16 mm / 0,63"

Nom. power (RMS) 50 Watts, 80 Watts max

Freq. range 2 kHz-20 kHz

Sensitivity 91 dB

Magnet diameter 20 mm / 0,8" neodymium magnet Mounting depth 20 mm / 0,8" (recessed mounting) Mounting hole 43 mm / 1,7" (recessed mounting)

Cone material Mylar

X-ST20 - tweeter installs Surface install:

<u>Plain mounting</u>: Use only the plain mounting cup (1) (it's normally mounted at delivery). Attach to surface with the two screws or d

mounted at delivery). Attach to surface with the two screws or double adhesive tape.

Angled mounting: Remove the plain mounting cup by bending with a small screw driver in the gap (A). Attach the tweeter element to the angled cup (2) as shown on picture 3. Pull the cable through the centre hole. Now the tweeter can be mounted in two different angles. Attach to the surface with the two screws or double adhesive tape.

Recessed install:

Make a 48 mm / 1,89" hole in the door side panel. The installation becomes easier if the door side is removed from the door.

Put the two metal wings through the two tracks in the centre of the cup, just as the picture shows, and attach them with the M4 screw and nut through the centre hole. Put the tweeter element into the cup with the cable going out through the bottom hole. Attach the tweeter element to the plain cup using the mounting ring (C) attached between the cup and the tweeter element. The metal wings (B) should be on the back side of the door panel, holding the cup in place.



X-SP62 X-SC52

X-SC62

X-ST20 tweeter facts

Size 20 mm / 0,8"

Nom. power (RMS) 50 Watts, 80 Watts max

Freq. range 1,5 kHz-20 kHz

Sensitivity 93 dB

Cone material Silk

X-ST28 - tweeter installs

X-SA52 X-SA62 X-SB52 X-SB62

Surface install:For angled surface mount together with the angled cup:

The tweeter is attached to the cup by pressing the two parts together. When removing the tweeter from the cup, just bend with a small screwdriver or knife in the



Recessed install:

Make a 50 mm $^{\prime}$ 2" round hole in the door side panel. Attach the cup in the hole using the metal wing. The wing is screwed on the back with a machine screw M4 size and holds the cup in place.

Put the tweeter into the cup with the cable going out through the bottom hole. Then attach the tweeter into the cup by pressing it inwards.

X-ST28 tweeter facts

Size 28 mm / 1,1"

Nom. power (RMS) 50 Watts (80 Watts max)

Freq. range 1,5 kHz-20 kHz Sensitivity 93 dB Magnet diameter 28 mm / 1,1"

Mounting depth 21 mm / 0,83" (recessed mounting) Mounting hole 50 mm / 2" (recessed mounting)

Cone material Hand treated fabric