a/d/s/

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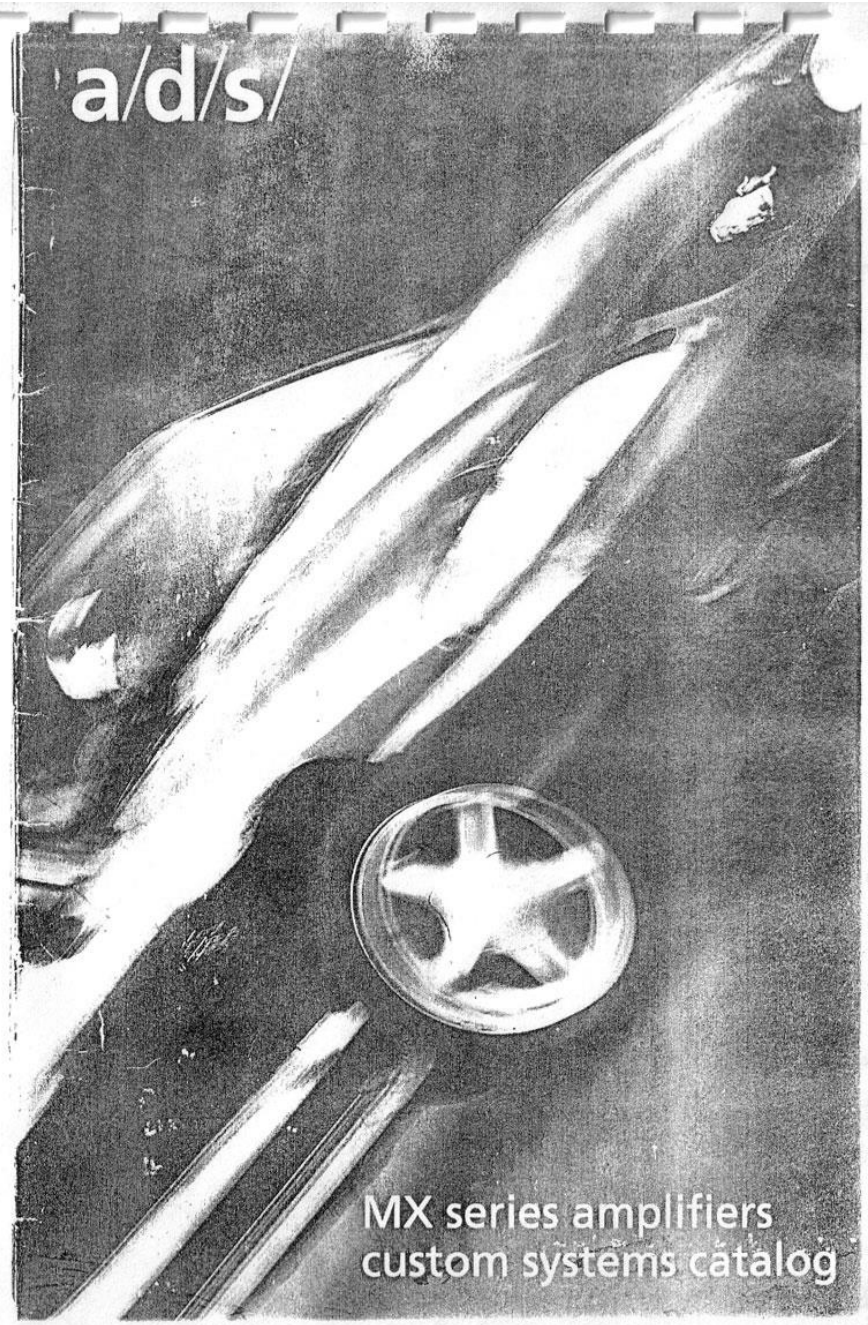


about the MX custom systems catalog

The introduction of the a/d/s/ MX series represented a significant advance in the field of autosound amplifiers. In addition to the most advanced circuit design ever put in an autosound amplifier, the MX series units provide channel bridging and crossover functions far ahead of any other product.

It is often the case that the more flexible and powerful a tool is, the more complex it is. The manual shipped with the MX amplifiers provides a great deal of information about the operating theory behind the units. In particular there is a good deal of information about the functions of the configuration pin jumpers that control the bridging, signal routing and crossover functions of the units.

Despite this the a/d/s/ Customer Service Department receives a number of calls with questions about how to configure specialized systems. So we took a number of these systems and put them in this MX Systems Catalog. There is also additional information about the internal signal paths of the 860MX.

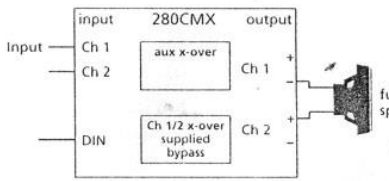
We hope you find this systems "cook book" a helpful time saver. If you have questions about a system not covered in this catalog the a/d/s/ Customer Service Department is, as always, available at (617) 729-1140 to provide whatever assistance you need.

notes about the systems

Many of the systems in this catalog have two variations – one with the AC501MX remote bass level control and one without. These systems have the same basic input and output configuration. And in most cases the two system variations have the same crossover module placement. (System 11 is the one exception; the channel 5/6 and 7/8 crossover modules are reversed.) However, *the setting of the pin jumpers for the two system variations differ substantially.* Be sure to configure the pin jumpers very carefully in all the systems.

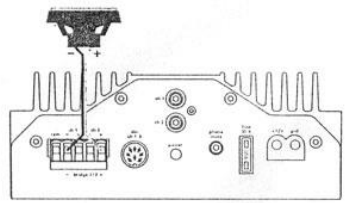
Do not use the older versions of the AC501 bass level control. Use only the AC501MX with the the MX series amplfiers. **Using the original AC501 or AC501CSi with the MX series units will damage the amplifiers. Such damage is not covered by the product warranty.**

The diagrams in this manual show many systems with speakers connected to bridged amplifier channels. For the sake of making the diagrams clear and simple these bridged connections are not illustrated exactly as they appear on the terminals of the amplifier.



The diagrams show the "–" terminal of channel 1 and the "+" terminal of channel 2 adjacent to each other.

On the amplifier the "–" terminal of channel 1 and the "+" terminal of channel 2 are at opposite ends of the terminal block. Be sure to follow the labeling below the terminal block when connecting to bridged amplifier channels.



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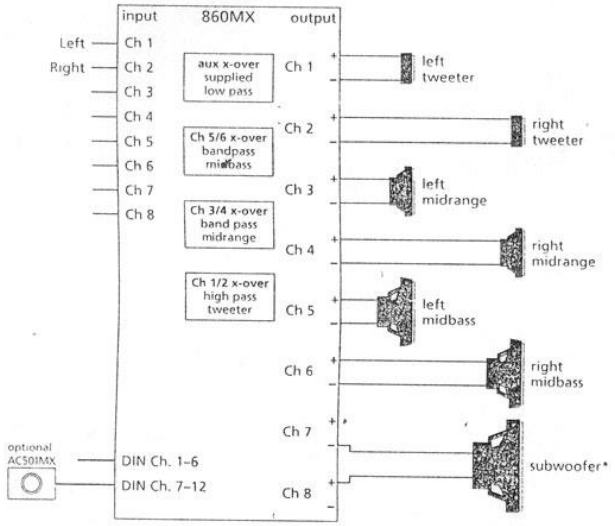
system 1 with and without AC501MX bass level control

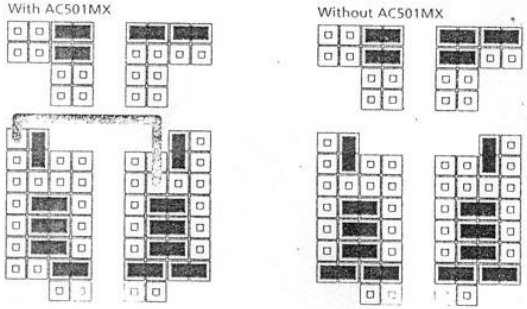
Inputs: Two channels.

Amplifier: One 860MX in 7 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Two channel quad-amplified speaker system – one pair of tweeters, one pair midranges, one pair of midbass speakers and one or two subwoofers.

***Notes:** Connect a single subwoofer to the channel 7 and 8 bridged terminals. Connect dual subwoofers to the individual channel speaker terminals for channels 7 and 8.





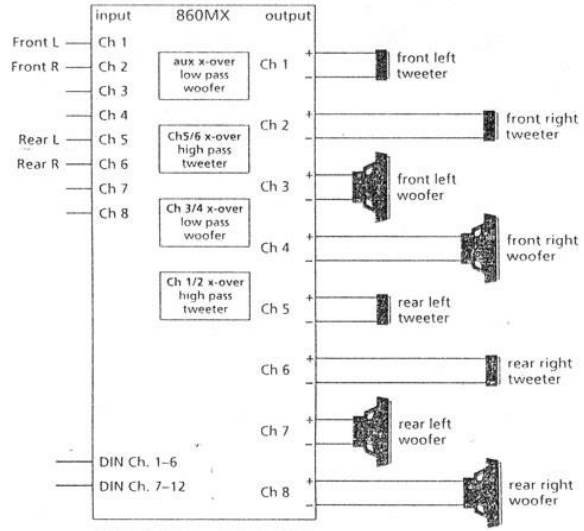
The gray line shown on the pin jumper diagram is the supplied wire jumper.

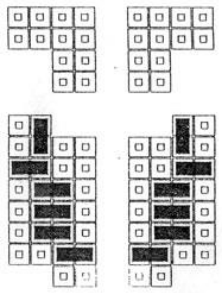
system 2

Inputs: Four channels.

Amplifier: One 860MX in 8 channel mode.

Outputs: Four channels of biamplified speaker outputs – a separate amplifier channel drives the tweeter and woofer of each speaker set.





system 3 with and without AC501MX bass level control

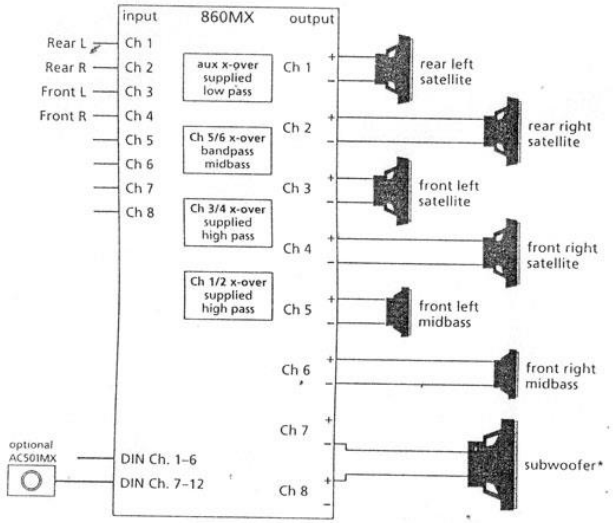
Inputs: Four channels.

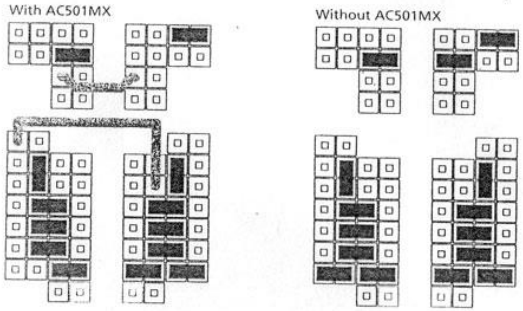
Amplifier: One 860MX in 7 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Four channels with satellite speakers, front channel midbass speakers, and one or two subwoofers.

***Notes:** Connect a single subwoofer to the channel 7 and 8 bridged terminals. Connect dual subwoofers to the individual channel speaker terminals for channels 7 and 8.

Adjusting the fader control changes the output of the midbass speakers with the front channels.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

system 4 with and without AC501MX bass level control

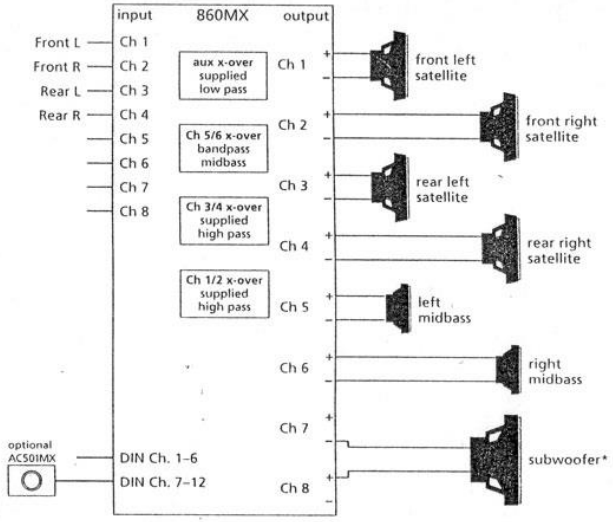
Inputs: Four channels.

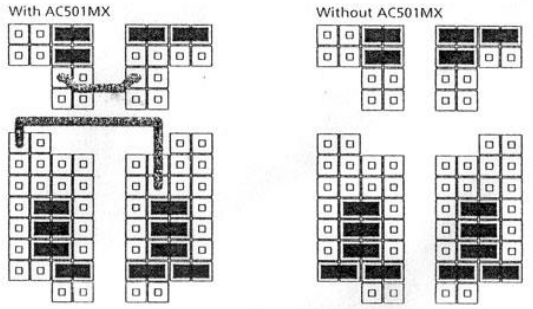
Amplifier:-One 860MX in 7 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Four channels with satellite speakers, midbass speakers, and one or two subwoofers.

***Notes:** Connect a single subwoofer to the channel 7 and 8 bridged terminals. Connect dual subwoofers to the individual channel speaker terminals for channels 7 and 8.

The output of the midbass speakers is unaffected by the fader control.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

system 5 with and without AC501MX bass level control

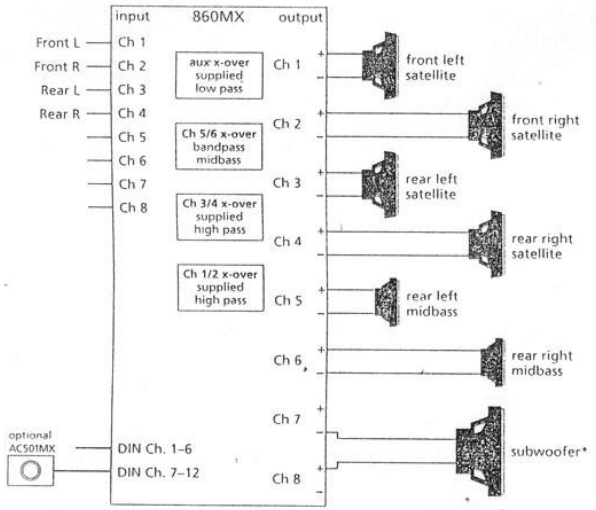
Inputs: Four channels.

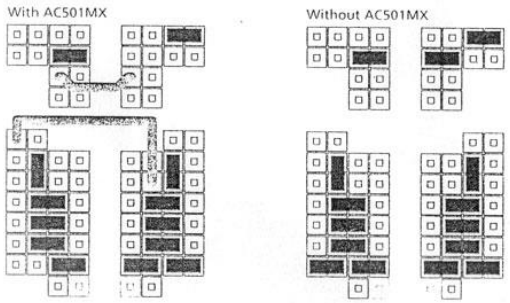
Amplifier: One 860MX in 7 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Four channels with satellite speakers, rear channel midbass speakers, and one or two subwoofers.

***Notes:** Connect a single subwoofer to the channel 7 and 8 bridged terminals. Connect dual subwoofers to the individual channel speaker terminals for channels 7 and 8.

Adjusting the fader control changes the output of the midbass speakers with the rear channels.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

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system 6 with and without AC501MX bass level control

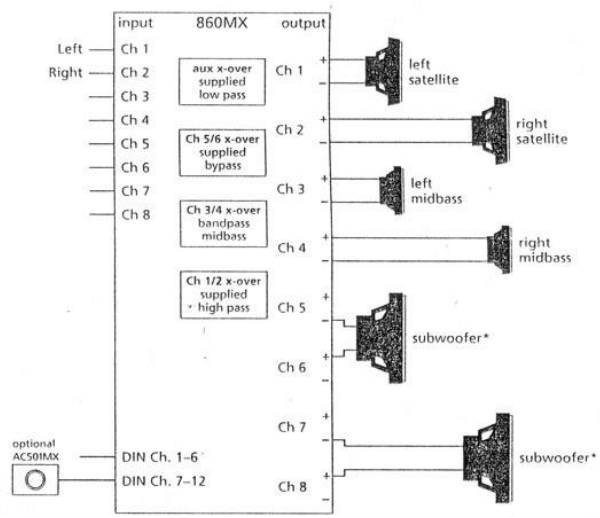
Inputs: Two channels.

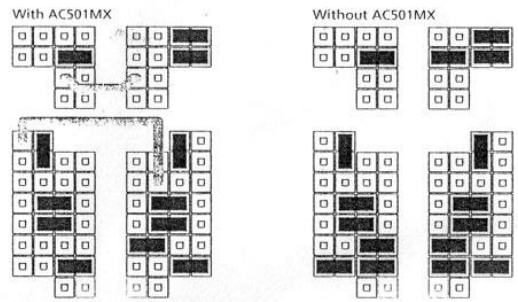
Amplifier: One 860MX in 6 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Two channel triamplified speaker system – one pair of satellite speakers, one pair of midbass speakers and two or four subwoofers.

***Notes:** Connect two subwoofers to the channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 5, 6, 7, and 8.

The channel 5/6 level control does not function in this system. The channel 7/8 level control affects all the subwoofers.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

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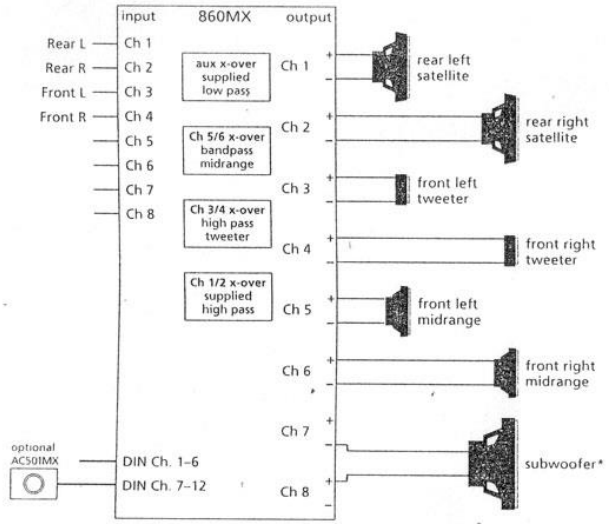
system 7 with and without AC501MX bass level control

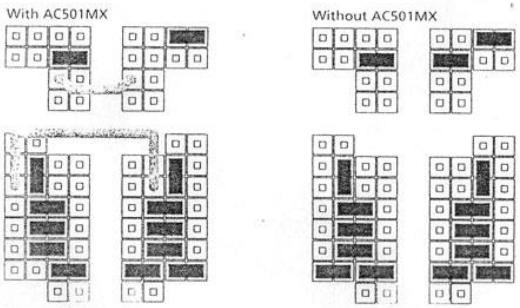
Inputs: Four channels.

Amplifier: One 860MX in 7 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Front channels are biamplified–one pair of tweeters and one pair of midranges. The rear channels are high passed satellite speakers. The one or two subwoofers receive signals from the summed input signals.

***Notes:** Connect one subwoofer to the channel 7 and 8 bridged terminals. Connect two subwoofers to the individual channel speaker terminals for channels 7 and 8.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

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system 8 with and without AC501MX bass level control

Inputs: Four channels.

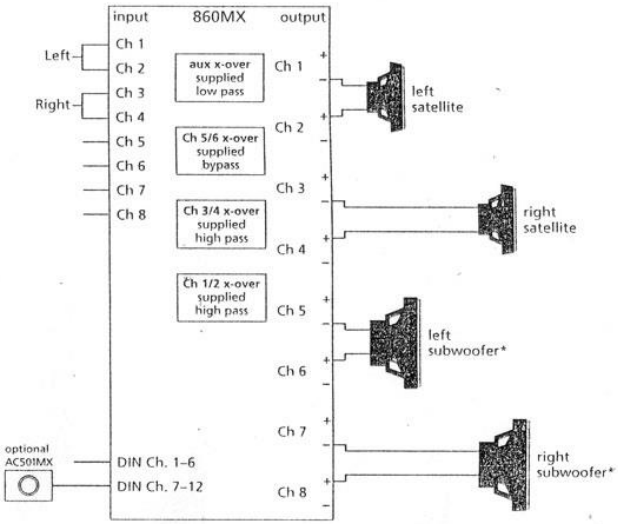
Amplifier: One 860MX in 4 channel mode. The optional AC501MX can be used to control subwoofer output level.

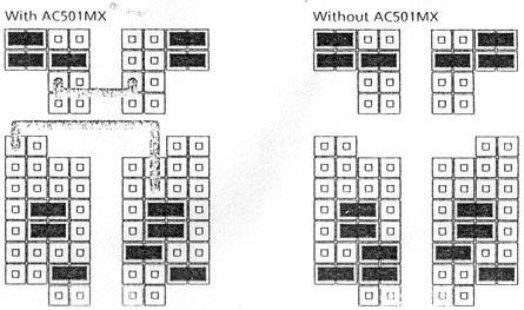
Outputs: Satellite speakers and two or four subwoofers.

***Notes:** Connect two subwoofers to the channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 5, 6, 7, and 8.

The channel 1/2 high pass crossover and level control affects the left satellite speaker. The channel 3/4 high pass crossover and level control affects the right satellite speaker.

The channel 5/6 level control does not function in this system. The channel 7/8 level control affects all the subwoofers.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

a/d/s/

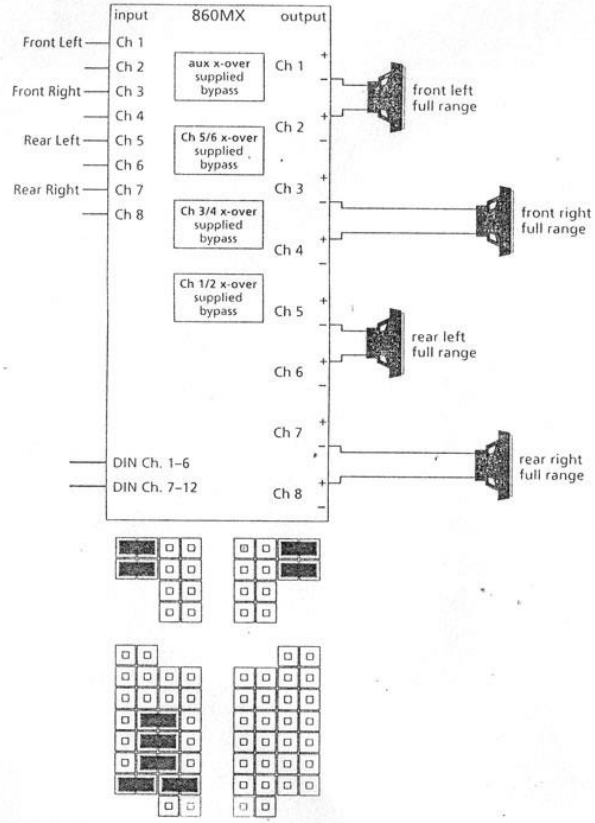
system 9

Inputs: Four channels.

Amplifier: One 860MX in 4 channel mode.

Outputs: Front and rear full range speakers.

***Notes:** Be sure the inputs are properly connected, front left to channel 1, front right to channel 3, rear left to channel 5, and rear right to channel 7.



a/d/s/

system 10 with and without AC501MX bass level control

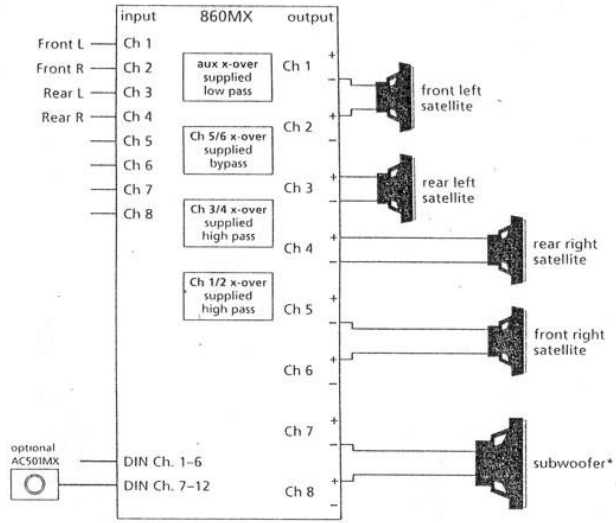
Inputs: Four channels.

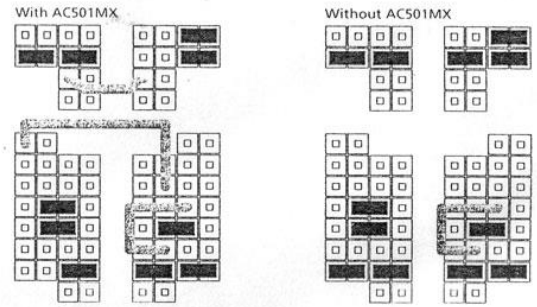
Amplifier: One 860MX in 5 channel mode. The optional AC501MX can be used to control subwoofer output level.

Outputs: Front satellite speakers are driven by bridged channels. Rear satellite speakers are driven by individual channels. One or two subwoofers are driven by bridged channels.

***Notes:** Connect one subwoofer to the channel 7 and 8 bridged terminals. Connect two subwoofers to the individual channel speaker terminals for channels 7 and 8.

The channel 1/2 level control affects the front speakers. The channel 3/4 level control affects the rear speakers. The channel 5/6 level control does not function. The channel 7/8 level control affects the subwoofers.





The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

a/d/s/

system 11 with AC501MX bass level control

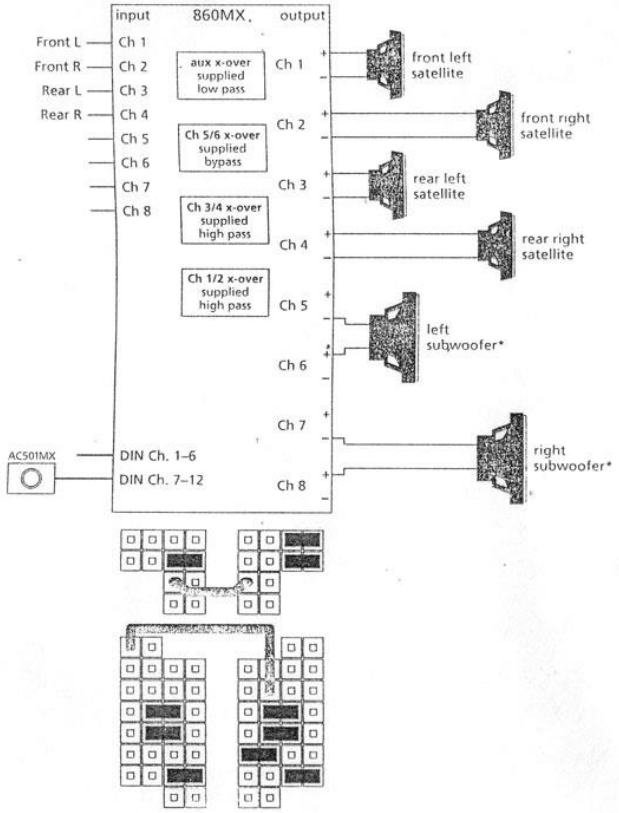
Inputs: Four channels.

Amplifier: One 860MX in 6 channel mode. An AC501MX controls subwoofer output level.

Outputs: Front and rear satellite speakers and two or four subwoofers driven by bridged channel sets.

***Notes:** Connect two subwoofers to the channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 5, 6, 7, and 8.

The channel 5/6 level control affects all the subwoofers. The channel 7/8 level control does not function in this system.



The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

a/d/s/

system 11 without AC501MX bass level control

(factory standard configuration)

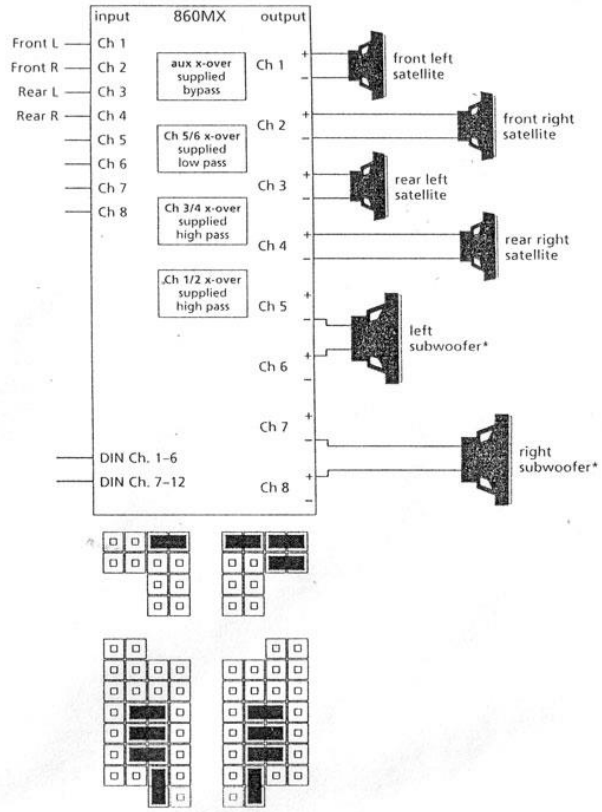
Inputs: Four channels.

Amplifier: One 860MX in 6 channel mode.

Outputs: Front and rear satellite speakers and two or four subwoofers driven by bridged channel sets.

***Notes:** Connect two subwoofer to the channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 5, 6, 7, and 8.

The channel 5/6 level control does not function in this system. The channel 7/8 level control affects all the subwoofers.



a/d/s/

system 12 with and without AC501MX bass level control

Inputs: Two channels.

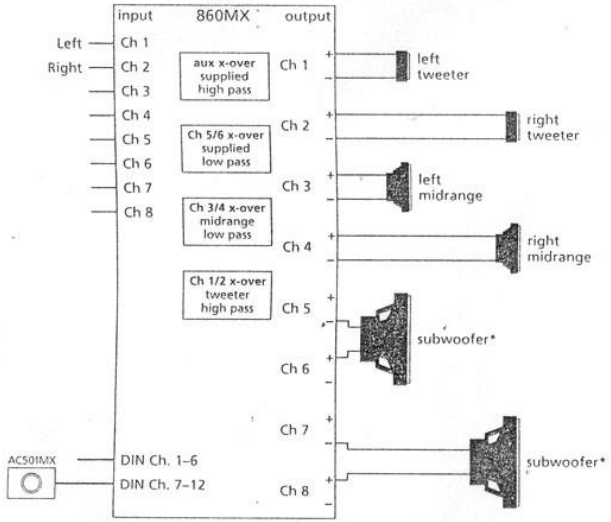
Amplifier: One 860MX in 6 channel mode. The optional AC501MX can be used to control subwoofer output level.

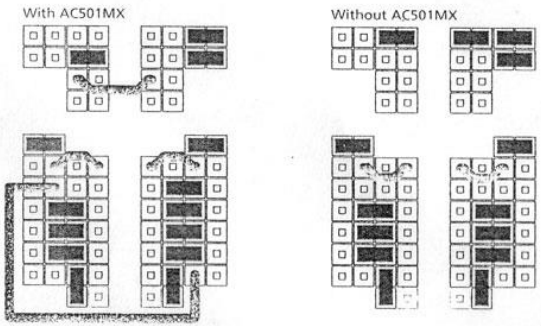
Outputs: Biamplified satellite speakers and two or four subwoofers

***Notes:** The supplied high pass module in the auxilliary crossover position determines the midrange high pass crossover point.

Connect two subwoofers to the channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 5, 6, 7, and 8.

The channel 7/8 level control must be turned up all the way. The channel 3/4 level control affects the midranges. The channel 5/6 level control affects the subwoofers.





TThe gray lines shown on the pin jumper diagram are the supplied wire jumpers.

a/d/s/

system 13

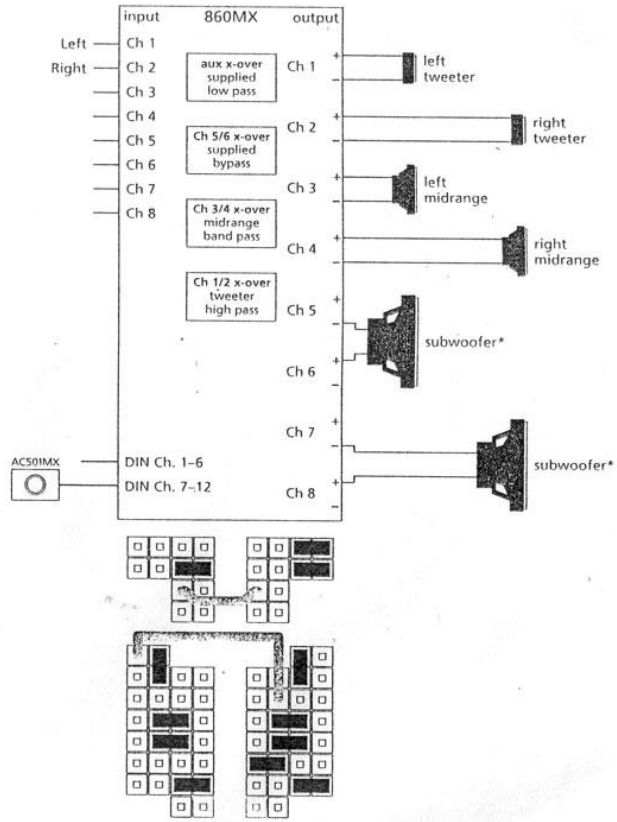
Inputs: Two channels.

Amplifier: One 860MX in 6 channel mode. An AC501MX controls subwoofer output level.

Outputs: Biamplified satellite speakers and two or four subwoofers

***Notes:** Connect two subwoofers to the channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 5, 6, 7, and 8.

The channel 5/6 level control does not function in this system. The channel 7/8 level control affects all the subwoofers.



The gray lines shown on the pin jumper diagram are the supplied wire jumpers.

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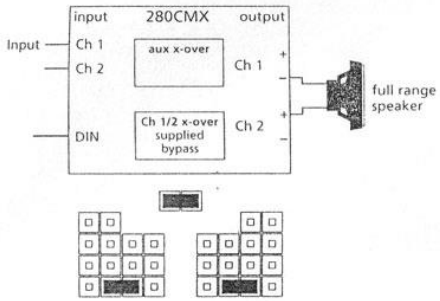
system 14

Inputs: One channel.

Amplifier: One 280CMX in 1 channel mode.

Outputs: One full range speaker driven by bridged channels.

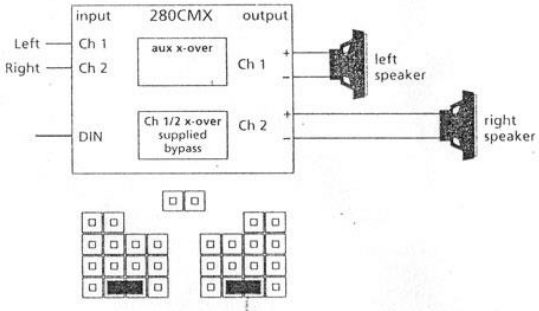


system 15

Inputs: Two channels.

Amplifier: One 280CMX in 2 channel mode.

Outputs: Two full range speakers.

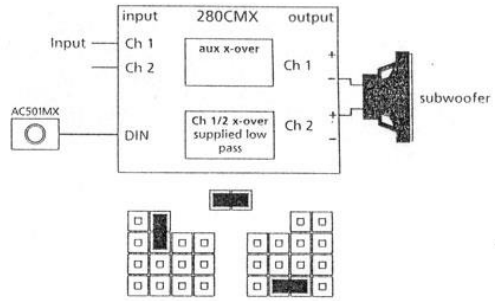


system 16

Inputs: One channel.

Amplifier: One 280CMX in 1 channel mode.

Outputs: One subwoofer driven by bridged channels. An AC501MX controls subwoofer output level.

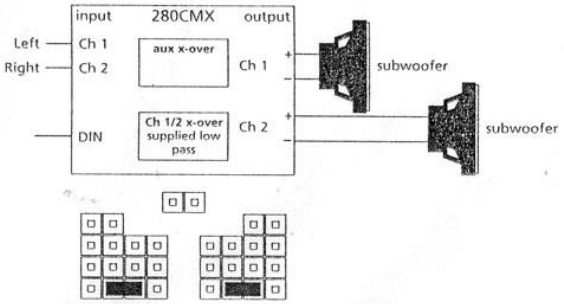


system 17

Inputs: Two channels.

Amplifier: One 280CMX in 2 channel mode.

Outputs: Two subwoofers.



system 18

Inputs: Two channels.

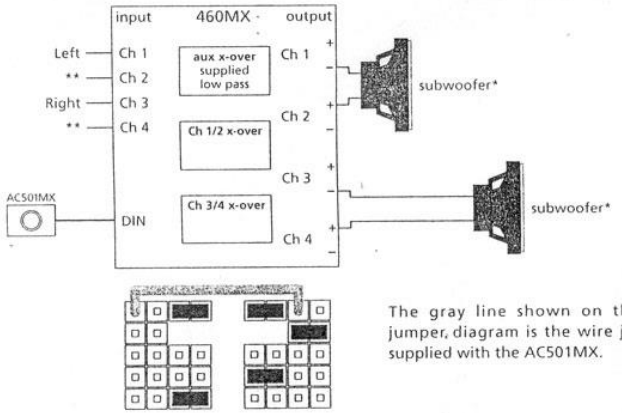
Amplifier: One 460MX in 2 channel mode.

Outputs: Two or four subwoofers driven by bridged channels. An AC501MX controls subwoofer output level.

***Notes:** Connect two subwoofers to the channel 1 and 2 and channel 3 and 4 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 1, 2, 3, and 4.

**Do not connect the channel 2 or 4 inputs.

The level control on the amplifier have not effect. The output level of the subwoofer is controlled by the AC501MX.



The gray line shown on the pin jumper, diagram is the wire jumper supplied with the AC501MX.

a/d/s/

system 19

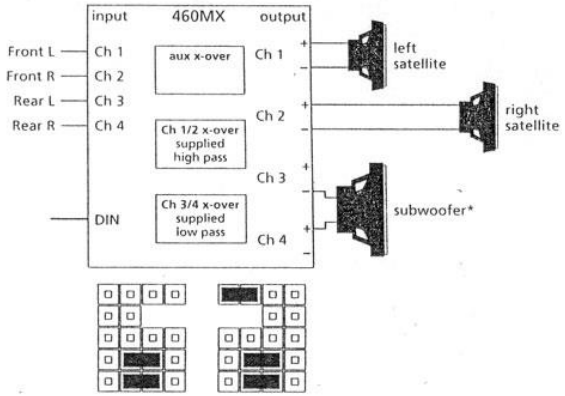
Inputs: Four channels.

Amplifier: One 460MX in 4 channel mode.

Outputs: One pair of satellite speakers and one or two subwoofers driven by bridged channels.

***Note:** Connect two subwoofers to the channel 1 and 2 and channel 3 and 4 bridged terminals. Connect four subwoofers to the individual channel speaker terminals for channels 1, 2, 3, and 4.

Adjusting the fader control affects the satellite speaker-to-subwoofer balance.

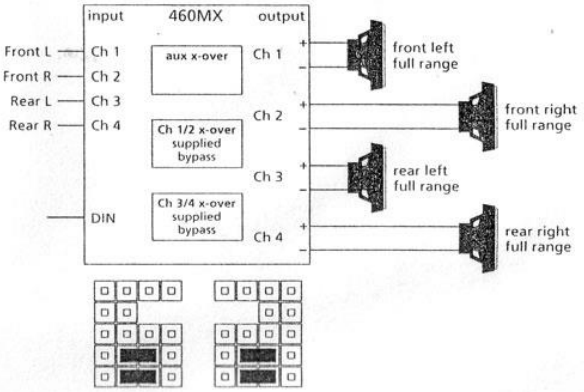


system 20

Inputs: Four channels.

Amplifier: One 460MX in 4 channel mode.

Outputs: Four full range speakers.



a/d/s/

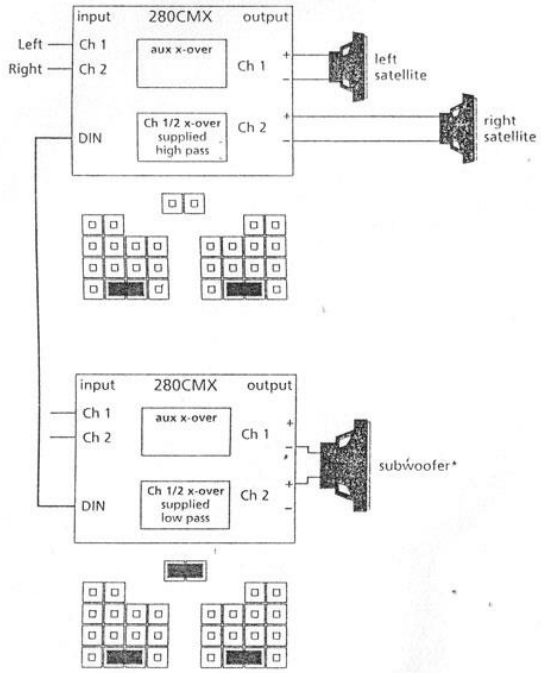
system 21

Inputs: Two channels.

Amplifiers: Two 280CMX; one in 2 channel mode one in 1 channel mode.

Outputs: One pair of satellite speakers and one or two subwoofers driven by a bridged channel.

***Note:** Connect one subwoofer to the channel 1 and 2 bridged terminals. Connect two subwoofers to the individual channel speaker terminals.



a/d/s/

system 22

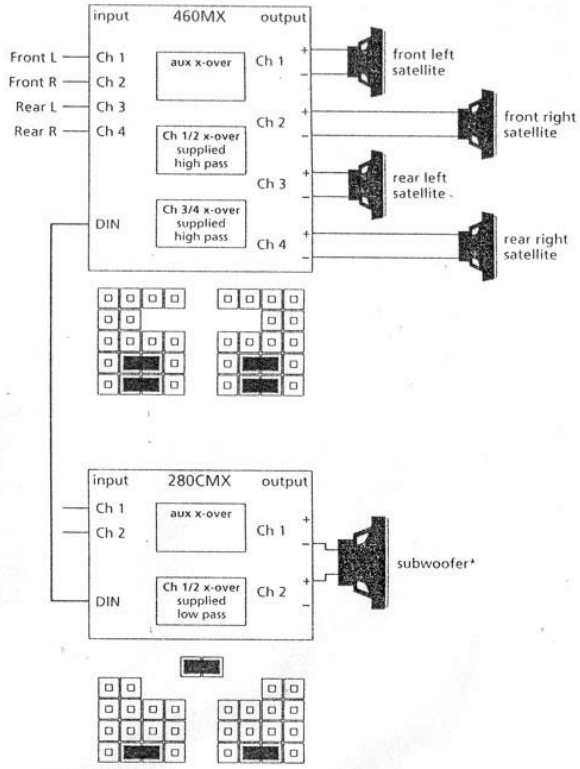
Inputs: Four channels.

Amplifiers: One 460MX in four channel mode and one 280CMX in 1 channel mode.

Outputs: Front and rear satellite speakers and one or two subwoofers.

***Note:** Connect one subwoofer to the channel 1 and 2 bridged terminals. Connect two subwoofers to the individual channel speaker terminals.

The subwoofer output fades with the front satellite speakers.



a/d/s/

system 23

Inputs: Four channels.

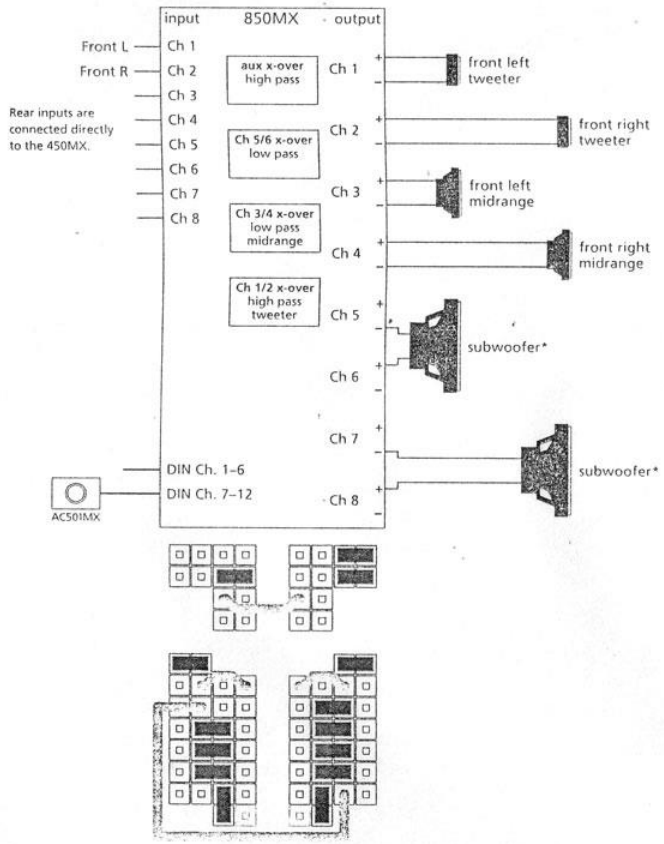
Amplifiers: One 860MX in 6 channel mode and one 460MX in 4 channel mode. An AC501MX controls subwoofer output level.

Outputs: Front and rear biamplified satellites and two or four subwoofers driven by the front inputs. This is the only system that provides 24dB/Octave crossovers for all speakers.

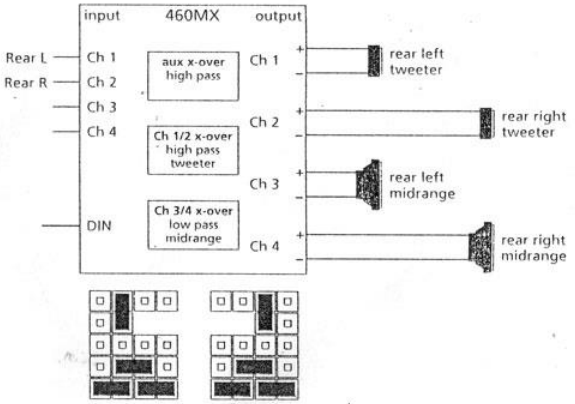
***Notes:** Connect two subwoofers to the 860MX channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the 860MX individual channel speaker terminals for channels 5, 6, 7, and 8.

The fader control affects subwoofer output.

The channel 7/8 level control must be turned up all the way. The channel 3/4 level control affects the midranges. The channel 5/6 level control affects the subwoofers.



The gray lines shown on the pin jumper diagram are the supplied wire jumpers.



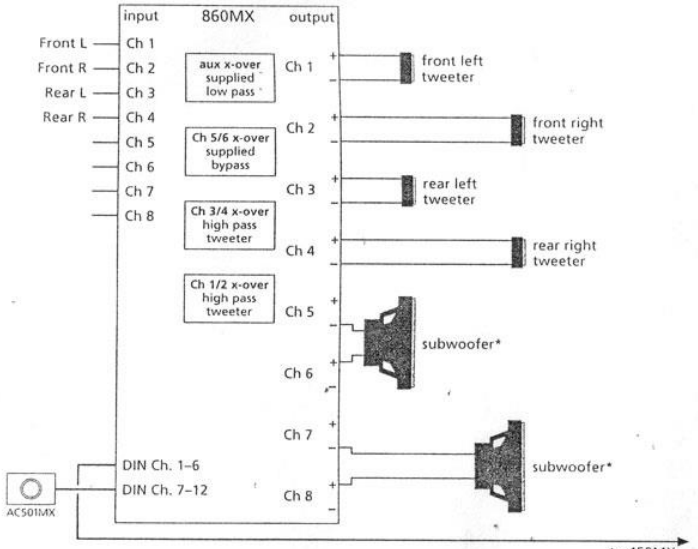
system 24

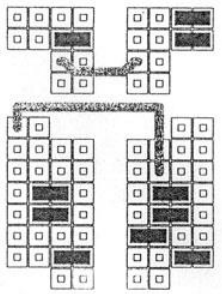
Inputs: Four channels.

Amplifiers: One 860MX in 6 channel mode and one 460MX in 4 channel mode. An AC501MX controls subwoofer output level.

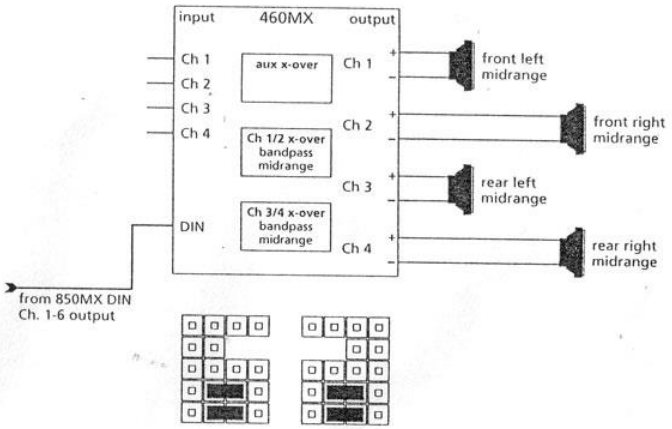
Outputs: Front and rear biamplified speakers and two or four subwoofers driven by the summed inputs of all four channels.

***Note:** Connect two subwoofers to the 860MX channel 5 and 6 and channel 7 and 8 bridged terminals. Connect four subwoofers to the 860MX individual channel speaker terminals for channels 5, 6, 7, and 8.

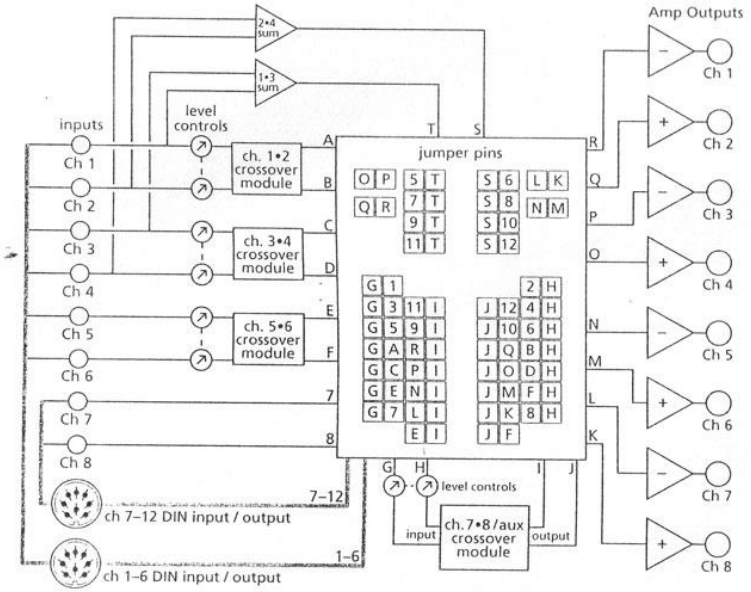




The gray lines shown on the pin jumper diagram are the supplied wire jumpers.



860MX block diagram



A From x-over Ch 1
B From x-over Ch 2
C From x-over Ch 3
D From x-over Ch 4
E From x-over Ch 5
F From x-over Ch 6
G To Aux x-over Ch A
H To Aux x-over Ch B
I From Aux x-over Ch A
J From Aux x-over Ch B
K To amp Ch 8
L To amp Ch 7
M To amp Ch 6
N To amp Ch 5
O To amp Ch 4
P To amp Ch 3
Q To amp Ch 2
R To amp Ch 1
S From sum Ch 2+4
T From sum Ch 1+3

1 From RCA and DIN Ch 1
2 From RCA and DIN Ch 2
3 From RCA and DIN Ch 3
4 From RCA and DIN Ch 4
5 From RCA and DIN Ch 5
6 From RCA and DIN Ch 6
7 From RCA and From/To DIN Ch 7
8 From RCA and From/To DIN Ch 8
9 From/To DIN Ch 9
10 From/To DIN Ch 10
11 From/To DIN Ch 11
12 From/To DIN Ch 12

M/Sport crossover modules (available as of 10/94)

Module type	Frequency	Suitable for use with
Low pass modules – 2nd order 12dB/octave		
ADSM3/45LP	45Hz	Subwoofers
ADSM3/60LP	60Hz	Subwoofers
ADSM3/85LP	85Hz	Subwoofers
ADSM3/100LP	100Hz	Subwoofers
ADSM3/170LP	170Hz	Subwoofers or midbass
Low pass modules – 3rd order 18dB/octave		
ADSM/VARLP*	continuously variable 45Hz to 170Hz	Subwoofers or midbass
Low pass modules – 4th order 24db/octave		
ADSM2/65LP	65Hz	Subwoofers
ADSM2/100LP	100Hz	Subwoofers
ADSM2/130LP	130Hz	Subwoofers
ADSM2/170LP	170Hz	Subwoofers or midbass
ADSM2/320WLP	approx. 2500Hz	325is, 320is, 200is, AL4, AL5, AL6 woofer
High pass modules – 2nd order 12dB/octave		
ADSM3/100HP	100Hz	Satellite speakers
ADSM3/170HP	170Hz	Satellite speakers
ADSM3/5KHP	5000Hz	Tweeters
ADSM/VARHP*	Selectable hi pass 62, 85, 95 115, 125, 145, 155, 175Hz	Satellite, midrange or midbass
High pass modules – 4th order 24dB/octave		
ADSM2/65HP	65Hz	5¼" or larger satellite speakers
ADSM2/130HP	130Hz	Satellite speakers
ADSM2/170HP	170Hz	Satellite speakers
ADSM/300THP	approx. 2500Hz	300T tweeter (300is, 200is)
ADSM/320THP	approx. 2500Hz	320is, 325is, AL4, AL5, or AL6 tweeter
Module kits – 4th order 24dB/octave (includes 1 lo pass and 1 hi pass module)		
ADSMK2/65	65Hz lo pass and hi pass	Subwoofer & midbass
ADSMK2/170	170Hz lo pass and hi pass	Midbass & satellite or midrange
ADSMK2/320ix	approx. 2500Hz	For biamping 320is, 325is, 200is, AL4, AL5, AL6
Module kits – 2nd order 12dB/octave (includes 1 bandpass and 1 hi pass module)		
ADSMK3/320ix	170Hz to 2500Hz and 2500Hz hi pass	For biamping 320is, 325is, AL4, AL5
Bandpass modules – 2nd order 12dB/octave lo pass & hi pass		
ADSM3/85-320WBP	85Hz to approx. 2500Hz	320is, 325is, 200is, AL4, AL5, AL6 midrange
ADSM3/130-320WB	130Hz to approx. 2500Hz	320is, 325is, 200is, AL4, AL5, AL6 midrange
ADSM3/170-320WB	170Hz to approx. 2500Hz	320is, 325is, 200is, AL4, AL5, AL6 midrange
ADSM3/65-170	65Hz to 170Hz	Midbass

Modules are available through authorized a/d/s/ dealers.

*Available February 1995.

a/d/s/