

# Instruction Manual for Models 

 ADP700.1ADP1200.1
ADP1000.4
ADP1500.6
ADMP500.1
ADMP2002.
ADMP400.4
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## ADP FREQUENCY CHART

## ADMP FREQUENCY CHART

FUSE RATINGS and WIRE GAUGE CHART
BALANCED-UNBALANCED CONVERSIONS
INFORMATION

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AD DESIGNS is proud to introduce these new amplifiers to the market. They employ state of the art electronics with class leading technology.

The ADP series employ fully regulated power supplies which deliver constant output voltage independent of the vehicle's battery voltage. Should the vehicle's battery voltage drop below about 11.5 volts, the amplifiers will simply loosen up their regulated status and only continuous output power would reduce slightly. The output power with music shall remain essentially the same.

ADP amplifiers employ 24dB/octave Linkwitz-Riley crossovers for both High and Low pass types and ultra low noise integrated circuits are used throughout the front end stages.

The ADMP series employ quasi regulated power supplies which are dependent on the value of the vehicle's battery voltage.

ADMP amplifiers employ 12dB/octave Linkwitz-Riley crossovers for both High and Low pass types except the ADMP 500.1 which has 24dB/octave LinkwitzRiley crossovers and ultra low noise integrated circuits are used throughout the front end stages.

AII AD DESIGNS amplifiers have the following features unless noted:

* Balanced or unbalanced inputs, switchable by either PCB DIP switch or front panel switch depending on model type.
* Auto turn on via DC voltage sense on inputs when in BALANCED mode only.

Damage will de done to head units with BTL outputs if connected to an UNBALANCED input.

* If the hard wired remote turn on feature is used, the auto turn is automatically disabled.
* All the amplifiers feature APEC circuitry which prevents clipping and distortion. The current consumption (and heat) are vastly reduced when APEC is activated.
* Each amplifier (except ADMP 900.6) feature peak power LEDs on both front panel and the remote. The remote's LED turns from GREEN to RED when peak power is reached.
* The amplifiers are protected against over voltage of the battery supply (16.3v shut down), reverse polarity of the battery connections, thermal shut down should the heat sink temperature reach 75 deg C (167 def F), DC protect should and DC in excess of about plus or minus 5 volts appear on any speaker output and short circuit protection on the speaker outputs. (AD does not recommend deliberately shorting the speaker leads or shorting speaker leads from one

Channel to the other.

* All high value electrolytic capacitors used are low ESR 105 deg $C$ types and these have been chosen for their sonic qualities.
* Since every class D amplifier employs a reconstruction filter at it's output, the quality of the inductor and capacitor are critical for good sound quality. Wima high pulse current type are used on every amplifier's filter and low loss powdered iron or gapped ferrite cores are used for the inductors.
* The class D amplifiers on every model use ultra low gate charge MOSFETs which are critical for the operation of these full range class $D$ amplifiers. Even the mono blocks use the same full range designs!
* Power supplies are all over built in terms of transformer size and the quality of the MOSFETs used as well as their unique drive circuits. The size of the transformer and operating frequency of the switch mode power supply determine the ultimate amount of energy which can be extracted. Typical supplies use a switching frequency of between 25 to 40 KHz . We use 75 KHz which means that we can extract between 1.5 to 2.2 times the power from a given transformer core. The MOSFETs we use are also low gate charge high current types. Even though the manufacturer of the MOSFETs rate them at 98 amps each, the physical facts rule. The leads of the MOSFET are not capable of carrying anywhere close to 98 amps! We limit the peak current of any power supply MOSFET to about 30 amps.
* The control circuits which are activated in the boot up procedure of the amplifiers are optically isolated from the audio circuits.
* Every AD DESIGNS amplifier uses 4 layer FR4 PCB material. Why? Several reasons. Multiple ground planes are employed as we have four available layers to use and these ground planes allow us to drastically lower the radiated EMI of these amplifiers. The routing of critical PCB tracks is enhanced as we have the extra two layers to use.
* The full range class $D$ amplifier sections all operate at about 370 KHz which is in the "sweet spot" of efficiency versus radiated EMI versus sound quality. * The amplifiers which have more than one channel have their class D clocks locked at a single frequency which eliminates the beat frequencies we often encounter in most multi channel class D amplifiers out there.
* Great attention has been paid to the layout of the PCBs due to the fact that in high frequency switching circuits, PCB layout is as critical as the electronic design itself.
* ADP 700.1/1200.1 may be bridged with a 4 ohm load to deliver 1400w and 2400w respectively OR may be cascaded with each subsequent amplifier driving it's own woofer where the master's controls affect all further cascaded amplifiers.

** These fuse ratings should be lowered if channels are run in High Pass mode due to the fact that the energy contact is substantially reduced (thus current draw) when channels are in HP mode. A 30\% reduction is a good number.

| Size $(232 \times 51.4 \mathrm{~mm})$ | 250.5 mm | 347.7 mm | 250.5 mm | 347.7 mm |
| :--- | :--- | :--- | :--- | :--- |
| Size $\left(9.13^{\prime \prime} \times 2.02^{\prime \prime}\right)$ | $9.86^{\prime \prime}$ | $13.69 "$ | $9.86^{\prime \prime}$ | $13.69 "$ |
| Net Weight $(\mathrm{Kg})$ | 3.4 | 3.98 | 3.4 | 3.98 |


| Specification | ADMP500.1 | ADMP200.2 | ADMP400.4 | ADP900.6 |
| :---: | :---: | :---: | :---: | :---: |
| Output @ 4 ohm | 300 watts | 100w x 2 | $80 w \times 4$ | $\begin{array}{r} 80 w \times 4 \\ 200 w \times 2 \end{array}$ |
| Output @ 2 ohm | 500 watts | 125w x 2 | 110w x 4 | $\begin{aligned} & \text { 110w x } 4 \\ & 280 w \times 2 \end{aligned}$ |
| Compared Continuous Power with APEC fully engaged on subwoofers | 1000w | 500w x 1 | 500w x 2 | $\begin{aligned} & 500 w \times 2 \\ & \text { 1000w x } 1 \end{aligned}$ |
| Input Sensitivity (Unbalanced) Input Sensitivity (Balanced) |  |  |  |  |
| Input Impedance at 1 KHz Input Impedance at 1 KHz | $\qquad$ - 8.2K ohm balanced per leg$\qquad$ 8.2 K ohm unbalanced |  |  |  |
| Frequency Response | -----------------10Hz to 35KHz -1dB-------------------- |  |  |  |
| THD @ 2KHz 4 ohm | <01\% | <0.1\% | <0.1\% | <0.1\% |
| Noise below rated output A weighted | -95dB | -89dB | -89dB | $\begin{aligned} & \text {-89dB } \\ & -93 \mathrm{~dB} \end{aligned}$ |
| ADMP500.1 has 24dB/octave crossovers, all others 12dB/octave, all Linkwitz-Riley |  |  |  |  |
| High Pass Crossover | $10 \mathrm{Hz-150Hz}$ | N/A | N/A | N/A |
| High Pass Crossover Ch 1+2 | N/A | 10Hz-400Hz | $55 \mathrm{~Hz}-4 \mathrm{KHz}$ | 55Hz-4KHz |
| High Pass Crossover Ch 3+4 | N/A | N/A | $10 \mathrm{~Hz}-1 \mathrm{KHz}$ | $10 \mathrm{~Hz}-1 \mathrm{KHz}$ |
| High Pass Crossover Ch 5+6 | N/A | N/A | N/A | $10 \mathrm{~Hz}-1 \mathrm{KHz}$ |
| Low Pass Crossover | 40Hz-240Hz | N/A | N/A | N/A |
| Low Pass Crossover Ch 1+2 | N/A | $55 \mathrm{~Hz}-4 \mathrm{KHz}$ | N/A | N/A |
| Low Pass Crossover Ch 3+4 | N/A | N/A | 55Hz-4KHz | $55 \mathrm{~Hz}-4 \mathrm{KHz}$ |
| Low Pass Crossover Ch 5+6 | N/A | N/A | N/A | $50 \mathrm{~Hz}-1 \mathrm{KHz}$ |
| Remote Level Port | Yes | Yes | Yes | Yes |
| Fuse Rating with 4 ohm | 30A | 15A** | 20A** | 25A** |
| Fuse Rating with 2 ohm | 50A | 25A** | 30A** | 40A** |
| ** These fuse ratings should be lowered if channels are run in High Pass mode due t fact that the energy contact is substantially reduced (thus current draw) when chan are in HP mode. A 30\% reduction is a good number. |  |  |  |  |
| Size (151 x 49.9mm) | 209.85mm | 209.85mm | 209.85mm | 340.8 mm |
| Size (5.94"x 1.96") | 8.26" | 8.26" | 8.26" | 13.4" |
| Net Weight (Kg) | 2.0 | 2.0 | 2.0 | 3.3 |
| Net Weight (lbs) | 4.4 | 4.4 | 4.4 | 7.26 |

## Single amplifier driving one or two woofers

1) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs.
2) Set High and Low Pass crossovers to suit the woofer
3) Set the X OVER switch to HP for the Low Pass crossover to be bypassed. This function is used for systems with DSP.
4) Set the X OVER switch to LP/BP so that the Low Pass crossover is active
5) Set the LEVEL control to suit the signal source's output level.
6) The easiest way to set the LEVEL control is to set the volume control of the signal source to about $85-90 \%$ of it's maximum and then whilst playing your favourite CD, set the LEVEL control until the APEC LED just flashes on the loudest peaks.
7) Set the MODE switch to master.
8) If the remote level controller is used, set the LEVEL control close to fully CW.
9) Connect the woofer(s) to the speaker outputs making sure that the MINIMUM speaker impedance is 2 ohms.


## ADP 700.1 and ADP 1200.1

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## Two amplifiers BRIDGED driving one or two woofers

1) Set the MODE switch to master for the MASTER and to SLAVE for the SLAVE.
2) If the remote level controller is used, set the LEVEL control close to fully CW on the MASTER amplifier. The remote port on the slave is not active.
3) Connect the - line out of the master to the \#1 line input of the slave.
4) Connect the woofer(s) as shown making sure that the MINIMUM speaker impedance is 4 ohms.
5) None of the controls on the SLAVE are active.

TYP SETTING TYP SETTING $\mathbf{7 0 - 1 0 0 H z}$ $10-40 \mathrm{~Hz}$


Two amplifiers IN CASCADE driving individual woofers

1) Set the MODE switch to master for the MASTER and to SLAVE for the SLAVE.
2) If the remote level controller is used, set the LEVEL control close to fully CW on the MASTER amplifier. The remote port on the slave is not active.
3) Connect the + line out of the master to the \#1 line input of the slave.
4) Connect the woofers as shown making sure that the MINIMUM speaker impedance is 4 ohms.
5) None of the controls on the SLAVE are active.

6) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs. Please refer to Page 26 for details on how to do this.
7) Channels $1+2$ have four modes of operation.

Full range: Set the X OVER switch to FR and all crossovers are bypassed.
High Pass: Set the X OVER switch to HP and the High Pass crossover is active.
Low Pass: Set the X OVER switch to LP and the LP MODE switch to LP and the Low Pass crossover is active
Band Pass: Set the X OVER switch to LP and the LP MODE switch to BP and both Highand Low Pass crossovers are active.
3) Channels $3+4$ have four modes of operation

Full range: Set the X OVER switch to HP and set the High Pass crossover to 10 Hz .
High Pass: This is a variation of above where the High Pass crossover is set to a frequency much greater than 10 Hz .
Low Pass: Set the X OVER switch to LP/BP and both High and Low Pass crossovers are active. For Low Pass the High Pass is set to 10 Hz
Bandpass the High pass is typically set higher than 10 Hz .
4) The FUNCTION switch when set to MONO mixes the signals of channels $3+4$ to mono, feeds these to the main amplifiers and allows the use of the remote port. This is typically used when the 1000.4 is used as a three channel amplifier with channels $3+4$ running subs and channels $1+2$ running component speakers.
5) The switch labeled INPUT allows the use of a two channel source to drive all four channels. The signal source must be connected to inputs $3+4$.

Some examples of systems using ADP1000.4 with and without ADP700.1/1200.1
ADP1000.4 in High Pass driving four component speakers


ADP1000.4 in tri channel driving component speakers off channels 1+2 and sub woofer(s) off channels $3+4$ either separate woofers or in bridged mode as shown below


Alternatively two separate
woofers may be connected
to ch's $3+4$ with a minimum
impedance of 2 ohms EACH

## ADP 1000.4

ADP1000.4 driving two tweeters from Ch 1+2 and Midrange from Ch 3+4 With an ADP700.1 or $\mathbf{1 2 0 0 . 1}$ driving sub woofer speakers and a subwoofer

Active controls \& switch positions


1) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs. Please refer to Page 27 for details on how to do this.
2) Channels $1+2$ have two modes of operation.

Full range: Set the X OVER switch to FR and the crossover is bypassed.
High Pass: Set the X OVER switch to HP and the High Pass crossover is active.
3) Channels $3+4$ have five modes of operation.

Full range: Set the X OVER switch to FR and all crossovers are bypassed..
High Pass: Set the X OVER switch to HP and the High Pass crossover is active
Low Pass: Set the X OVER switch to LP and the Low Pass crossover is active
Band Pass: Set the X OVER switch to LP and the MODE switch to BP and both High and Low Pass crossovers are active.
Copy 5/6: Set the MODE switch to COPY 5/6. In this mode, the signals from Ch 5+6 are fed into the Low Pass crossover of Ch $3+4$. Whatever settings are done for Ch $5+6$ WILL be duplicated by Ch $3+4$ BUT the Low Pass crossover of Ch $3+4$ is still in circuit. This mode of operation is intended to allow Ch $3+4$ to duplicate Ch $5+6$ when Ch $5+6$ are set in Low Pass mode driving sub woofers. The Low Pass crossover of Ch 3_4 is then set to 4 KHz to remove it from the passband set by the crossover sof $\mathrm{Ch} 5+6$.
4) Channels $5+6$ have four modes of operation

Full range: Set the X OVER switch to FR and all crossovers are bypassed..
High Pass: Set the X OVER switch to HP and the High Pass crossover is active
Low Pass: Set the X OVER switch to LP and the Low Pass crossover is active
Band Pass: Set the X OVER switch to LP and the MODE switch to BP and both High and Low Pass crossovers are active.
5) The FUNCTION switch when set to MONO mixes the signals of channels $5+6$ to mono, feeds these to the main amplifiers and allows the use of the remote port. This is typically used when the 1500.6 is used where Ch $5+6$ are running sub woofers.
6) The switch labeled INPUT SELECT allows the use of a two, four or six channel source.

In position " 6 " the amplifier is a six in, six out configuration.
In position " 4 " the amplifier is a 4 in , 6 out configuration. Ch 1-4 feed their respective outputs and Ch $5+6$ receive a mixed mono signal from Ch $1+3$ and $2+4$ respectively.
In position " 2 " the amplifier is a 2in, 6 out configuration. Ch 1 input feeds Ch 3 and 5 and Ch 2 input feeds Ch 4 and 6.

## Typical modes of operation of the ADP1500.6

A) All channels in FR mode and an outboard DSP processor is used.
B) Ch 1+2 and $\mathbf{3 + 4}$ set to HP mode driving four component speakers with Ch $\mathbf{5 + 6}$ driving subs.
C) Ch 1+2 set to HP mode driving two component speakers and Ch 3-6 driving subs (See "copy 5/6" above.
D) Ch 1+2 in HP mode driving tweeters, Ch 3+4 in BP mode driving midrange and Ch 5+6 driving subs.

## System One

Ch 1+2 and 3+4 set to HP mode driving four component speakers with Ch 5+6 driving subs.


## System Two

Channels $1+2$ set to HP mode driving two component speakers and channels 3-6 driving either two woofers in bridge mode (as shown) or four woofers, one on each of channels $3,4,5$ and 6 .


## System Three

Channels 1+2 set to HP mode driving tweeters.
Channels $3+4$ in BP mode driving midrange.
Channels $5+5$ in LP mode driving woofers.


## ADMP 500.1

## Single amplifier driving one or two woofers

1) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs.
2) Set High and Low Pass crossovers to suit the woofer
3) Set the X OVER switch to HP for the Low Pass crossover to be bypassed. This function is used for systems with DSP.
4) Set the X OVER switch to LP/BP so that the Low Pass crossover is active
5) Set the LEVEL control to suit the signal source's output level.
6) The easiest way to set the LEVEL control is to set the volume control of the signal source to about $86-90 \%$ of it's maximum and then whilst playing your favourite CD, set the LEVEL control until the APEC LED just flashes on the loudest peaks.
7) Set the MODE switch to master.
8) If the remote level controller is used, set the LEVEL control close to fully CW.
9) Connect the woofer(s) to the speaker outputs making sure that the MINIMUM speaker impedance is 2 ohms.

10) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs. Please refer to page 28 on how to do this.
The amplifier has four modes of operation.
A) Set the MODE switch to HP, set the multiplier switch to $\times 1$, set the HP crossover to 10 Hz and the amplifier runs effectively in full range.
B) Set the MODE switch to HP, set the HP crossover to a higher frequency setting, set the multiplier switch in or out depending on the high pass crossover frequency desired and the amplifier runs in High Pass mode.
C) Set the X OVER switch to LP/BP so that the Low Pass crossover is active as well.

Setting the HP crossover to 10 Hz allows the amplifier to run in Low Pass.
Setting the HP crossover between $10-40 \mathrm{~Hz}$ introduces a sub sonic filter.
Setting the FUNCTION switch to MN mixes the two channels to mono and allows the REMOTE port to function.
D) Setting the LP and HP crossovers to suitable frequencies allows the amplifier to operate in bandpass mode to drive midrange drivers in a multiway system.
5) Set the LEVEL control to suit the signal source's output level.
6) The easiest way to set the LEVEL control is to set the volume control of the signal source to about $86-90 \%$ of it's maximum and then whilst playing your favourite CD, set the LEVEL control until the APEC LED just flashes on the loudest peaks.
7) Set the MODE switch to master.
8) If the remote level controller is used, set the LEVEL control close to fully CW.

The diagram below shows the ADMP200.2 connected for sub woofer operation.
Active controls \& switch positions
are shown in RED


To amplifier's inputs


1) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs. Please refer to page 29 on how to do this.

Channels 1+2 have three modes of operation.
A) Set the MODE switch to FR and these channels run in full range with the LEVEL control being active.
B) Set the MODE switch to HP and these channels run in High Pass mode.
C) Set the MODE switch to COPY $3+4$ and channels $1+2$ will follow all settings of channels 3+4 except that the two LEVEL controls will be independent.

Channels 3+4 have four modes of operation.
A) Set the MODE switch to HP and set the frequency to 10 Hz . The channels now run effectively in full range.
B) Setting the HP crossover to a frequency higher than 10 Hz allows these channels to operate in High Pass mode.
C) Set the MODE switch to LP/BP, set the High Pass crossover to 10 Hz and set the Low Pass crossover to the desired frequency and these channels operate in Low Pass mode.
D) Setting the High Pass crossover to a higher frequency than 10 Hz allows these channels to operate in Band Pass mode.
E) Setting the FUNCTION switch to MN, mixes the $3+3$ signals to mono and invokes the remote port.
2) Set the LEVEL controls to suit the signal source's output level.
3) The easiest way to set the LEVEL control is to set the volume control of the signal source to about $85-90 \%$ of it's maximum and then whilst playing your favourite CD, set the LEVEL control until the APEC LED just flashes on the loudest peaks.
4) If the remote level controller is used, set the LEVEL control close to fully CW.
5) The ADMP400.4 can be set up as a higher powered two channel amplifier. Set the MODE switch of Ch $1+2$ to COPY $3+4$. Set the crossovers on ch $3+4$ to suit your application and connect the two speakers to the terminals marked "BRIDGE" on the rear panel.

As an example setting ch 3+4 to HP allows either high power full range operation with HP set to 10 Hz .

Setting the MODE switch to LP/BP and setting the HP crossover at between 10Hz-50Hz (Now functions as a subsonic crossover) and the LP to an appropriate frequency allows the amplifier to drive a pair of sub woofers.

The diagram below shows the ADMP400.4 set up to drive four component speakers


The diagram below shows the ADMP400.4 set up to drive two component speakers And a single sub woofer


1) Set BAL/UNBAL switch to suit the source. DO NOT set to unbalanced if using a head unit which has BTL outputs. Please refer to page 30 on how to do this.

Channels 1+2 has two modes of operation.
A) Set the PUSH SWITCH out to FR and these channels run in full range with the LEVEL control being active.
B) Set the PUSH SWITCH in to HP and these channels run in High Pass mode.

Channels 3+4 have four modes of operation.
A) Set the PUSH SWITCH out to HP and set the frequency to 10 Hz . The channels now run effectively in full range.
B) Setting the HP crossover to a frequency higher than 10 Hz allows these channels to operate in High Pass mode.
C) Set the PUSH SWITCH in to LP/BP, set the High Pass crossover to 10 Hz and set the Low Pass crossover to the desired frequency and these channels operate in Low Pass mode.
D) Setting the High Pass crossover to a higher frequency than 10 Hz allows these channels to operate in Band Pass mode.

Channels 5+6 have four modes of operation.
A) Set the SLIDE SWITCH to HP and set the frequency to 10 Hz . The channels now run effectively in full range.
B) Setting the HP crossover to a frequency higher than 10 Hz allows these channels to operate in High Pass mode.
C) Set the SLIDE SWITCH to LP/BP, set the High Pass crossover to 10 Hz and set the Low Pass crossover to the desired frequency and these channels operate in Low Pass mode.
D) Setting the High Pass crossover to a higher frequency than 10 Hz allows these channels to operate in Band Pass mode.
E) Setting the SLIDE SWITCH to MONO mixes the channels to mono and invokes the REMOTE port. The channels continue to operate in LP/BP mode.
2) Set the LEVEL controls to suit the signal source's output level.
3) The easiest way to set the LEVEL control is to set the volume control of the signal source to about $85-90 \%$ of it's maximum and then whilst playing your favourite CD, set the LEVEL control until the APEC LED just flashes on the loudest peaks.
4) If the remote level controller is used, set the LEVEL control close to fully CW.

The diagram below shows the ADMP900.6 set up with channels 1-4 driving component Speakers and channels $5+6$ driving a pair of sub woofers (with alternate single woofer bridged)

## $\bigcirc \quad$ CD 1 <br> REMOTE OUT

Active controls \& switch positions are shown in RED $70-100 \mathrm{~Hz}$

The 6 amplifier inputs may be fed signal in different modes:
A) Head unit has 6 outputs, two of them "SUB" which would drive 5+6 inputs.
B) Head unit has only 4 outputs, use rear outputs and Y -adapt to feed $\mathrm{Ch} 3+4$ and 5+6. C) Use only a stereo pair of outputs and double Y -adapt to feed all 6 inputs


Switch set to MONO invokes the REMOTE port


The diagram below shows the ADMP900.6 set up with Ch 1+2 driving tweeters, Ch 3+4 Driving midrange and Ch 5+6 driving a woofer ( A single woofer in bridge mode)



Switch set to MONO invokes the REMOTE port


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AD Premium Amplifiers - Crossover Frequency vs. Click Stop
MODELS - ADP700.1 - ADP1200.1 - ADP1000.4 - ADP1500.6

| $\begin{gathered} \mathrm{HP} \\ 10 \mathrm{~Hz}-150 \mathrm{~Hz} \end{gathered}$ |  | $\begin{gathered} \mathrm{HP} \\ 10 \mathrm{~Hz}-1 \mathrm{kHz} \end{gathered}$ |  | $\begin{gathered} \mathrm{HP} \\ 55 \mathrm{~Hz}-4 \mathrm{kHz} \end{gathered}$ |  | $\begin{gathered} \mathrm{LP} \\ 40 \mathrm{~Hz}-240 \mathrm{~Hz} \end{gathered}$ |  | $\begin{gathered} \text { LP } \\ 50 \mathrm{~Hz}-1 \mathrm{kHz} \end{gathered}$ |  | $\begin{gathered} \text { LP } \\ 55 \mathrm{~Hz}-4 \mathrm{kHz} \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CLICK | FREQ | CLICK | FREQ | CLICK | FREQ | CLICK | FREQ | CLICK | FREQ | CLICK | FREQ |
| 1 | 10 | 1 | 10 | 1 | 56 | 1 | 40 | 1 | 55 | 1 | 57 |
| 2 | 12 | 2 | 10 | 2 | 58 | 2 | 42 | 2 | 57 | 2 | 59 |
| 3 | 13 | 3 | 10 | 3 | 60 | 3 | 42 | 3 | 58 | 3 | 61 |
| 4 | 14 | 4 | 10 | 4 | 61 | 4 | 43 | 4 | 59 | 4 | 62 |
| 5 | 15 | 5 | 11 | 5 | 62 | 5 | 44 | 5 | 61 | 5 | 63 |
| 6 | 15 | 6 | 11 | 6 | 63 | 6 | 44 | 6 | 61 | 6 | 64 |
| 7 | 16 | 7 | 11 | 7 | 67 | 7 | 47 | 7 | 65 | 7 | 68 |
| 8 | 17 | 8 | 12 | 8 | 73 | 8 | 50 | 8 | 70 | 8 | 74 |
| 9 | 18 | 9 | 14 | 9 | 80 | 9 | 54 | 9 | 77 | 9 | 81 |
| 10 | 20 | 10 | 15 | 10 | 87 | 10 | 57 | 10 | 83 | 10 | 88 |
| 11 | 22 | 11 | 16 | 11 | 96 | 11 | 62 | 11 | 91 | 11 | 98 |
| 12 | 23 | 12 | 18 | 12 | 106 | 12 | 67 | 12 | 100 | 12 | 108 |
| 13 | 26 | 13 | 20 | 13 | 119 | 13 | 73 | 13 | 111 | 13 | 121 |
| 14 | 29 | 14 | 23 | 14 | 136 | 14 | 80 | 14 | 126 | 14 | 138 |
| 15 | 33 | 15 | 27 | 15 | 157 | 15 | 88 | 15 | 143 | 15 | 160 |
| 16 | 37 | 16 | 32 | 16 | 183 | 16 | 97 | 16 | 164 | 16 | 187 |
| 17 | 43 | 17 | 38 | 17 | 220 | 17 | 109 | 17 | 193 | 17 | 224 |
| 18 | 50 | 18 | 47 | 18 | 268 | 18 | 121 | 18 | 228 | 18 | 273 |
| 19 | 57 | 19 | 58 | 19 | 330 | 19 | 135 | 19 | 271 | 19 | 336 |
| 20 | 60 | 20 | 61 | 20 | 350 | 20 | 139 | 20 | 284 | 20 | 357 |
| 21 | 62 | 21 | 65 | 21 | 373 | 21 | 143 | 21 | 298 | 21 | 380 |
| 22 | 66 | 22 | 71 | 22 | 405 | 22 | 148 | 22 | 318 | 22 | 413 |
| 23 | 68 | 23 | 76 | 23 | 430 | 23 | 152 | 23 | 333 | 23 | 438 |
| 24 | 71 | 24 | 81 | 24 | 458 | 24 | 156 | 24 | 349 | 24 | 466 |
| 25 | 75 | 25 | 90 | 25 | 506 | 25 | 162 | 25 | 376 | 25 | 516 |
| 26 | 80 | 26 | 99 | 26 | 556 | 26 | 168 | 26 | 402 | 26 | 566 |
| 27 | 84 | 27 | 110 | 27 | 616 | 27 | 174 | 27 | 432 | 27 | 627 |
| 28 | 90 | 28 | 128 | 28 | 708 | 28 | 181 | 28 | 475 | 28 | 721 |
| 29 | 97 | 29 | 148 | 29 | 809 | 29 | 188 | 29 | 517 | 29 | 824 |
| 30 | 103 | 30 | 174 | 30 | 943 | 30 | 196 | 30 | 568 | 30 | 960 |
| 31 | 113 | 31 | 222 | 31 | 1177 | 31 | 206 | 31 | 643 | 31 | 1199 |
| 32 | 121 | 32 | 273 | 32 | 1411 | 32 | 214 | 32 | 706 | 32 | 1437 |
| 33 | 125 | 33 | 307 | 33 | 1567 | 33 | 217 | 33 | 742 | 33 | 1595 |
| 34 | 128 | 34 | 342 | 34 | 1718 | 34 | 221 | 34 | 774 | 34 | 1749 |
| 35 | 132 | 35 | 386 | 35 | 1902 | 35 | 224 | 35 | 809 | 35 | 1937 |
| 36 | 135 | 36 | 427 | 36 | 2068 | 36 | 226 | 36 | 837 | 36 | 2106 |
| 37 | 143 | 37 | 574 | 37 | 2621 | 37 | 233 | 37 | 913 | 37 | 2668 |
| 38 | 151 | 38 | 839 | 38 | 3468 | 38 | 239 | 38 | 997 | 38 | 3531 |
| 39 | 153 | 39 | 965 | 39 | 3817 | 39 | 241 | 39 | 1023 | 39 | 3886 |
| 40 | 153 | 40 | 969 | 40 | 3827 | 40 | 241 | 40 | 1024 | 40 | 3897 |
| 41 | 154 | 41 | 1027 | 41 | 3977 | 41 | 241 | 41 | 1034 | 41 | 4049 |

Page 24
AD Mini Premium Amplifiers - Crossover Frequency vs. Click Stop
MODELS - ADMP500.1 - ADMP200.2 - ADMP400.4 - ADMP900.6

| $\begin{gathered} \mathrm{HP} \\ 10 \mathrm{~Hz}-150 \mathrm{~Hz} \end{gathered}$ |  | $\begin{gathered} \mathrm{HP} \\ 10 \mathrm{~Hz}-400 \mathrm{~Hz} \end{gathered}$ |  | $\begin{gathered} \mathrm{HP} \\ 10 \mathrm{~Hz}-1 \mathrm{kHz} \end{gathered}$ |  | $\begin{array}{r} \mathrm{HP} \& \mathrm{LP} \\ 55 \mathrm{~Hz}-4 \mathrm{kHz} \end{array}$ |  | $\begin{gathered} \text { LP } \\ 40 \mathrm{~Hz}-240 \mathrm{~Hz} \end{gathered}$ |  | $\begin{gathered} \text { LP } \\ 50 \mathrm{~Hz}-1 \mathrm{kHz} \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CLICK | FREQ | CLICK | FREQ | CLICK | FREQ | CLICK | FREQ | CLICK | FREQ | CLICK | FREQ |
| 1 | 13 | 1 | 14 | 1 | 10 | 1 | 54 | 1 | 40 | 1 | 45 |
| 2 | 14 | 2 | 15 | 2 | 15 | 2 | 56 | 2 | 42 | 2 | 47 |
| 3 | 14 | 3 | 15 | 3 | 15 | 3 | 57 | 3 | 42 | 3 | 48 |
| 4 | 14 | 4 | 15 | 4 | 15 | 4 | 58 | 4 | 43 | 4 | 49 |
| 5 | 15 | 5 | 15 | 5 | 16 | 5 | 59 | 5 | 44 | 5 | 50 |
| 6 | 15 | 6 | 16 | 6 | 16 | 6 | 60 | 6 | 44 | 6 | 50 |
| 7 | 16 | 7 | 17 | 7 | 17 | 7 | 62 | 7 | 47 | 7 | 53 |
| 8 | 17 | 8 | 18 | 8 | 18 | 8 | 64 | 8 | 50 | 8 | 58 |
| 9 | 18 | 9 | 20 | 9 | 20 | 9 | 66 | 9 | 54 | 9 | 63 |
| 10 | 20 | 10 | 21 | 10 | 22 | 10 | 72 | 10 | 57 | 10 | 68 |
| 11 | 22 | 11 | 24 | 11 | 24 | 11 | 79 | 11 | 62 | 11 | 75 |
| 12 | 23 | 12 | 26 | 12 | 27 | 12 | 87 | 12 | 67 | 12 | 82 |
| 13 | 26 | 13 | 29 | 13 | 30 | 13 | 98 | 13 | 73 | 13 | 92 |
| 14 | 29 | 14 | 33 | 14 | 35 | 14 | 113 | 14 | 80 | 14 | 105 |
| 15 | 33 | 15 | 38 | 15 | 40 | 15 | 130 | 15 | 88 | 15 | 119 |
| 16 | 37 | 16 | 44 | 16 | 47 | 16 | 152 | 16 | 97 | 16 | 138 |
| 17 | 43 | 17 | 52 | 17 | 56 | 17 | 183 | 17 | 109 | 17 | 163 |
| 18 | 50 | 18 | 62 | 18 | 68 | 18 | 223 | 18 | 121 | 18 | 194 |
| 19 | 57 | 19 | 75 | 19 | 84 | 19 | 276 | 19 | 135 | 19 | 232 |
| 20 | 60 | 20 | 79 | 20 | 89 | 20 | 293 | 20 | 139 | 20 | 244 |
| 21 | 62 | 21 | 83 | 21 | 95 | 21 | 313 | 21 | 143 | 21 | 257 |
| 22 | 66 | 22 | 89 | 22 | 103 | 22 | 340 | 22 | 148 | 22 | 275 |
| 23 | 68 | 23 | 94 | 23 | 109 | 23 | 361 | 23 | 152 | 23 | 289 |
| 24 | 71 | 24 | 99 | 24 | 116 | 24 | 385 | 24 | 156 | 24 | 304 |
| 25 | 75 | 25 | 108 | 25 | 129 | 25 | 427 | 25 | 162 | 25 | 330 |
| 26 | 80 | 26 | 117 | 26 | 141 | 26 | 469 | 26 | 168 | 26 | 355 |
| 27 | 84 | 27 | 127 | 27 | 156 | 27 | 522 | 27 | 174 | 27 | 384 |
| 28 | 90 | 28 | 142 | 28 | 180 | 28 | 602 | 28 | 181 | 28 | 426 |
| 29 | 97 | 29 | 157 | 29 | 205 | 29 | 691 | 29 | 188 | 29 | 468 |
| 30 | 103 | 30 | 177 | 30 | 239 | 30 | 810 | 30 | 196 | 30 | 520 |
| 31 | 113 | 31 | 207 | 31 | 298 | 31 | 1023 | 31 | 206 | 31 | 600 |
| 32 | 121 | 32 | 233 | 32 | 356 | 32 | 1239 | 32 | 214 | 32 | 669 |
| 33 | 125 | 33 | 250 | 33 | 395 | 33 | 1386 | 33 | 217 | 33 | 710 |
| 34 | 128 | 34 | 264 | 34 | 433 | 34 | 1531 | 34 | 221 | 34 | 746 |
| 35 | 132 | 35 | 281 | 35 | 479 | 35 | 1709 | 35 | 224 | 35 | 786 |
| 36 | 135 | 36 | 294 | 36 | 520 | 36 | 1873 | 36 | 226 | 36 | 819 |
| 37 | 143 | 37 | 334 | 37 | 657 | 37 | 2439 | 37 | 233 | 37 | 911 |
| 38 | 151 | 38 | 380 | 38 | 865 | 38 | 3369 | 38 | 239 | 38 | 1016 |
| 39 | 153 | 39 | 396 | 39 | 950 | 39 | 3777 | 39 | 241 | 39 | 1050 |
| 40 | 153 | 40 | 396 | 40 | 952 | 40 | 3789 | 40 | 241 | 40 | 1051 |
| 41 | 154 | 41 | 402 | 41 | 989 | 41 | 3969 | 41 | 241 | 41 | 1064 |

## FUSE CHART

## MODEL

ADP700.1
ADP1200.1
ADP1000.4
ADP1500.6
ADMP500.1
ADMP200.2
ADMP400.4
ADMP900.6

4 OHM LOADS

30A
40A
25A*
40A*
30A
15A*
20A*
25A*

2 OHM LOADS

60A
80A 50A* 60A* 50A 25A* 30A* 40A*

* These fuse ratings can be reduced by about $30 \%$ when channels of these Amplifiers are run in a High Pass Mode.

|  | 250-300 | 4-ga. | 2-ga. | 2-ga. | 1/0-ga. | 1/0-ga. | 1/0-ga. | 2/0-ga. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 200-250 | 4-ga. | 4-ga. | 2-ga. | 2-ga. | 1/0-ga. | 1/0-ga. | 1/0-ga. |
|  | 150-200 | 6 or 4-ga. | 4-ga. | 4-ga. | 2-ga. | 2-ga. | 1/0-ga. | 1/0-ga. |
|  | 125-150 | 8-ga. | 6 or 4-ga. | 4-ga. | 4-ga. | 2-ga. | 2-ga. | 2-ga. |
|  | 105-125 | 8-ga. | 8-ga. | 6 or 4-ga. | 4-ga. | 4-ga. | 4-ga. | 2-ga. |
|  | 85-105 | 8-ga. | 8-ga. | 6 or 4-ga. | 4-ga. | 4-ga. | 4-ga. | 4-ga. |
|  | 65-85 | 10-ga. | 8-ga. | 8-ga. | 6 or 4-ga. | 4-ga. | 4-ga. | 4-ga. |
|  | 50-65 | 10-ga. | 10-ga. | 8-ga. | 8-ga. | 6 or 4-ga. | 6 or 4-ga. | 4-ga. |
|  | 35-50 | 10-ga. | 10-ga. | 10-ga. | 8-ga. | 8-ga. | 8-ga. | 6 or 4-ga. |
|  | 20-35 | 12-ga. | 10-ga. | 10-ga. | 10-ga. | 10-ga. | 8-ga. | 8-ga. |
|  | 0-20 | 12-ga. | 12-ga. | 12-ga. | 12-ga. | 10-ga. | 10-ga. | 10-ga. |
|  |  | 0-4 ft. | 4-7 ft. | 7-10 ft. | 10-13 ft. | 13-16 ft. | 16-19 ft. | 19-22 |
|  | Length in feet |  |  |  |  |  |  |  |

## ADP1000.4



THE AMPLIFIER IS DELIVERED FROM THE FACTORY WITH THE INPUTS SET TO UNBALANCED.

TO CONVERT TO BALANCED INPUTS FOLLOW THESE INSTRUCTIONS

1) REMOVE THE BOTTOM COVER OF THE AMPLIFIER.
2) BEHIND THE RCA SOCKETS IS A SWITCH MARKED SW1 AS SHOWN ABOVE.
3) USING A SMALL SCREWDRIVER MOVE THE 4 SMALL LEVERS OF SWITCH SHOWN IN BLUE ABOVE, TO THE OFF POSITION WHICH IS OPPOSITE TO THE PRINT ON THE SWITCH SHOWING "ON".
4) TAKE CARE WHEN MOVING THESE LEVERS AS THEY DO NOT REQUIRE MUCH STRENGTH TO MOVE THEM.

## ADP1500.6



THE AMPLIFIER IS DELIVERED FROM THE FACTORY WITH THE INPUTS SET TO UNBALANCED.

TO CONVERT TO BALANCED INPUTS FOLLOW THESE INSTRUCTIONS

1) REMOVE THE BOTTOM COVER OF THE AMPLIFIER.
2) BEHIND THE RCA SOCKETS IS A VERTICAL PCB AS SHOWN ABOVE.
3) USING A SMALL SCREWDRIVER MOVE THE 6 SMALL LEVERS OF SWITCH SHOWN IN BLUE ABOVE, TO THE OFF POSITION WHICH IS OPPOSITE TO THE PRINT ON THE SWITCH SHOWING "ON".
4) TAKE CARE WHEN MOVING THESE LEVERS AS THEY DO NOT REQUIRE MUCH STRENGTH TO MOVE THEM.

## ADMP 200.2



THE AMPLIFIER IS DELIVERED FROM THE FACTORY WITH THE INPUTS SET TO UNBALANCED.

TO CONVERT TO BALANCED INPUTS FOLLOW THESE INSTRUCTIONS

1) REMOVE THE BOTTOM COVER OF THE AMPLIFIER.
2) TO THE RIGHT OF THE RCA SOCKETS IS A SWITCH Sw2 AS SHOWN ABOVE.
3) USING A SMALL SCREWDRIVER MOVE THE 2 SMALL LEVERS OF SWITCH SHOWN IN BLUE ABOVE, TO THE OFF POSITION WHICH IS OPPOSITE TO THE PRINT ON THE SWITCH SHOWING "ON".
4) TAKE CARE WHEN MOVING THESE LEVERS AS THEY DO NOT REQUIRE MUCH STRENGTH TO MOVE THEM.

## ADMP 400.4



THE AMPLIFIER IS DELIVERED FROM THE FACTORY WITH THE INPUTS SET TO UNBALANCED.

TO CONVERT TO BALANCED INPUTS FOLLOW THESE INSTRUCTIONS

1) REMOVE THE BOTTOM COVER OF THE AMPLIFIER.
2) BEHIND THE RCA SOCKETS IS A SWITCH, SW1 AS SHOWN ABOVE.
3) USING A SMALL SCREWDRIVER MOVE THE 4 SMALL LEVERS OF SWITCH SHOWN IN BLUE ABOVE, TO THE OFF POSITION WHICH IS OPPOSITE TO THE PRINT ON THE SWITCH SHOWING "ON".
4) TAKE CARE WHEN MOVING THESE LEVERS AS THEY DO NOT REQUIRE MUCH STRENGTH TO MOVE THEM.

## ADMP 900.6



THE AMPLIFIER IS DELIVERED FROM THE FACTORY WITH THE INPUTS SET TO UNBALANCED.

TO CONVERT TO BALANCED INPUTS FOLLOW THESE INSTRUCTIONS

1) REMOVE THE BOTTOM COVER OF THE AMPLIFIER.
2) BEHIND THE RCA SOCKETS IS A SWITCH, SW1 AS SHOWN ABOVE.
3) USING A SMALL SCREWDRIVER MOVE THE 6 SMALL LEVERS OF SWITCH SHOWN IN BLUE ABOVE, TO THE OFF POSITION WHICH IS OPPOSITE TO THE PRINT ON THE SWITCH SHOWING "ON".
4) TAKE CARE WHEN MOVING THESE LEVERS AS THEY DO NOT REQUIRE MUCH STRENGTH TO MOVE THEM.

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