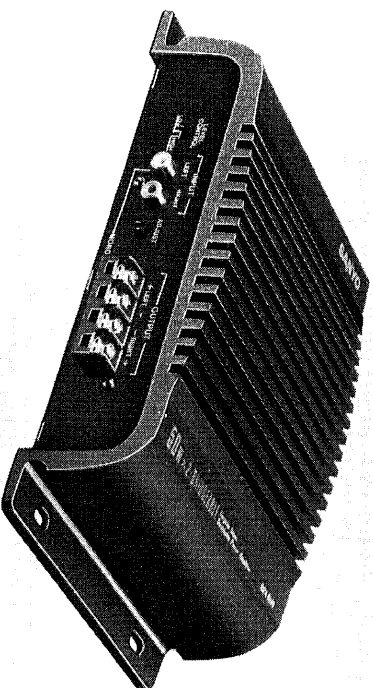


# SANYO

OPERATING INSTRUCTIONS (P. 3 ~ P. 5)  
BEDIENUNGSANLEITUNG (P. 6 ~ P. 8)  
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OPERACION



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**BPA 8040**

**STEREO/MONO SWITCHABLE  
MOBILE STEREO POWER AMPLIFIER**

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MEMO

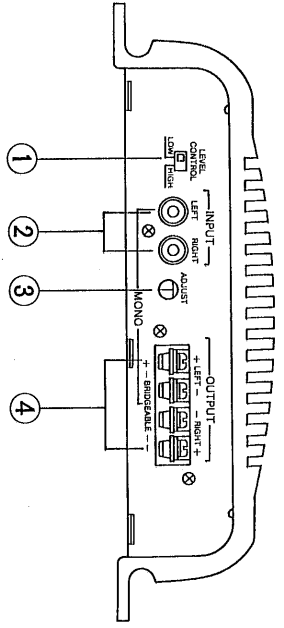


Fig. 1-a

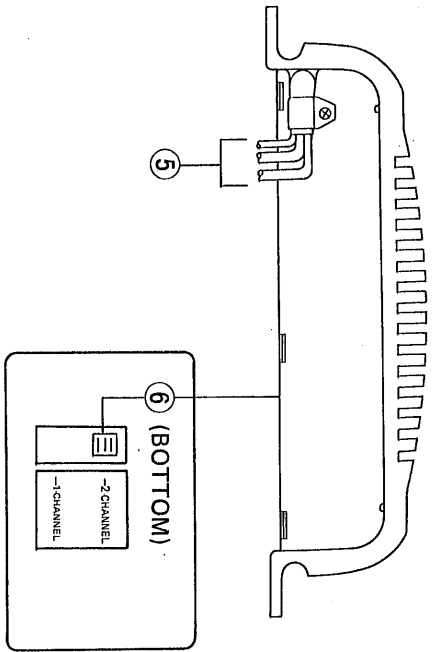


Fig. 1-b

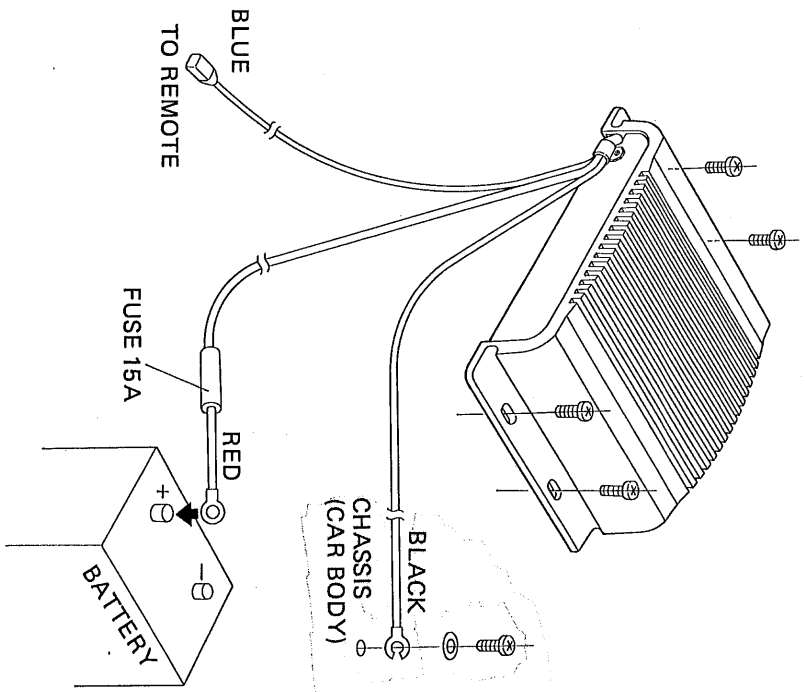


Fig. 2



## FEATURES

The SANYO BPA 8040 is one of the most advanced power amplifier available today and is designed for use with any car, truck or boat with a 12 volt negative ground electrical system.

Most amplifiers can efficiently handle signals at moderate input levels. However, during brief, intense passages, their limits are tested and distortion can often occur. An amplifier with sufficient dynamic headroom can handle these surges cleanly without a crackle or a hiss. Also expressed in decibels, dynamic headroom is the amount of additional power an amplifier can deliver above its rated power for short periods of time.

The SANYO BPA 8040 functions as 2-channel or 1-channel power amplifier by operating the mode switch, and provides the maximum output power of 50W x 2, and 100W.

Its hi-fi power bandwidth of 20 — 40 KHz, and 0.04% total harmonic distortion give the greatest satisfaction for critical audiophiles.

From now on, you can go anywhere and reproduce sound as if you were in a concert hall or recording studio. For proper operation and performance, please read the instruction manual carefully.

## CONTROLS AND CONNECTORS

(Fig. 1)

**LEVEL CONTROL ①**

With this selector the operating mode can be switched from LOW level input (power amplifier mode), for signals coming from preamp output) to HIGH level input ("booster operation").

The HIGH position should be used only for signals coming from the speaker terminals of low power car radios.

**INPUT LEFT/RIGHT ②**

This RCA (Cinch) type connectors can be utilized for both, power amp mode (LOW LEVEL input) and booster mode (HIGH LEVEL input).

**INPUT SENSITIVITY ADJUST ③**

This control must be set to a position which matches the input sensitivity of the BPA 8430 to the connected master unit.

**SPEAKER OUTPUT ④**

A pair of 4 ohm or 8 ohm loudspeakers can be connected.

**POWER SUPPLY ⑤**

For connection with the electrical system of the vehicle a detachable power cable is supplied. Please observe the colour code for correct polarity:

RED . . . . DC 12V — TO BATTERY POST ONLY

BLACK . . . Ground — TO CHASSIS (CAR BODY)  
FOR GROUND

BLUE . . . . RELAY DRIVE —  
— TO AUTO ANTENNA LEAD  
FOR AMPLIFIER SWITCH-  
ING RELAY LEAD.

**MODE SWITCH ⑥**

With this selector the operating mode can be switched from 2-CHANNEL (stereo power amplifier) to 1-CHANNEL (monaural power amplifier).

## INSTALLATION (Fig. 2)

Depending on the available space in an automobile, the most common locations for the BPA 8040 are:

- under the right hand front seat
- under the rear seats
- in the trunk compartment

When looking for an other suitable location, make sure hot to expose the unit directly to weather influences (water, mud etc.). Also keep away the unit from heat generating devices and permit some air ventilation for cooling. Never cover the amplifier with carpets etc.

For interference free operation, the metal cabinet of the BPA 8040 should be electrically connected to the car's body. Either directly fix it to metal parts of the car or use a separate grounding cable which connects the unit with the chassis of the car.

Affix the BPA 8040 with the 4 pcs. of self-tapping screws (6 x 16 mm, accessory) or utilize suitable bolts and nuts (e.g. 6 x 30 mm).

## ELECTRICAL HOOK UP OF THE POWER AMPLIFIER

Connection for use as a 2-channel power amplifier (See Fig. 3a)

1. Set the mode switch to the 2-CHANNEL position.
  2. Connect right and left channels for INPUT.
  3. Connect right and left channels for OUTPUT, taking care not to mistake the speaker polarity.
- \* Connect a speaker system of 50W or more capacity for OUTPUT.

Connection for use as a 1-channel power amplifier (See Fig. 3b)

1. Set the mode switch to the 1-CHANNEL position.  
In this setting, INPUT is monaural input and OUTPUT is monaural output.
2. LEFT only can be used for INPUT (RIGHT should be opened.)
3. Connect a monaural speaker to OUTPUT.

In this case, connect the positive pole of the speaker to the LEFT + terminal and the negative pole to the RIGHT + terminal. (Open LEFT - and RIGHT - terminals.)  
\* As for OUTPUT, connect a speaker of 100W or more capacity.

## Common Hookup

- High Power Capacity Speakers should be used for the right and left channels. Do not use different impedance or type speakers, or unbalanced sound may occur.  
Over 8 ohms impedance speakers can be used, but they will reduce the maximum output level just slightly.
- Connect speaker leads with as heavy wire as possible. 18 gauge is recommended.
- Connect 8 gauge red lead for power directly to the positive post of the battery.

## OPERATION

After you have installed the unit please check again all electrical connections before you switch on the car stereo master unit.

The BPA 8040 power amplifier will switch on automatically a few seconds after the master unit.

Carefully increase the volume of the system in order to get the right feeling for the volume level and dynamic range.

Please note the following:

- 1) At high ambient temperatures, little air ventilation around the BPA 8040 heat sinks, and after operating periods of excessive volume the amplifier might switch off automatically. An automatic thermal circuit breaker protects the unit from dangerous overheating. In such a case please turn off the system and allow the unit to cool down to normal temperature levels.
- 2) In case of short circuit of the speaker cords or another event which might seriously damage the amplifier an automatic overload circuit breaker switches off the power. Also the power fuse (15A) next to the power cord receptacle might blow. In such a case put in order the installation and if necessary replace the fuse.

For the fuse connection, use the fuse holder supplied as shown in Fig. 4.

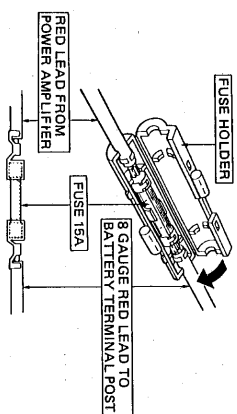


Fig. 4

- 3) Due to the high power consumption of the BPA 8040 it is not advisable to listen to the system in a parked car for a longer period of time. Listening at high volume levels will discharge the car's battery more rapidly than at lower volume levels.

However, two or three hours of listening in a parked car with the engine switched off will not cause problems.

### CAUTION:

- 1) When this amplifier is used as a booster. You can not connect a Car stereo which has BTL (Balanced Transformer Less) out put.
- 2) "Booster" operation with low power car stereo units might cause trouble if the car stereo's output stage employs a so-called BTL circuitry. In doubt, please contact a technician.

## SPECIFICATIONS

### Power output

Maximum output power

2-Channel 50 Watts x 2

1-Channel 100 Watts

Nominal output power

(0.05% THD at 1 kHz)

2-Channel 33 Watts x 2

1-Channel 70 Watts

Power bandwidth . . . . . 20 — 40 kHz

Total harmonic distortion

(at 1W) . . . . . 0.04%

Frequency response

(±1 dB) . . . . . 20 — 20 kHz

Signal/Noise ratio

(1% THD, 1 kHz, INFA) . . . . . 100 dB

Input sensitivity & impedance

Low Level

(250 ~ 600 mV) . . . . . 10K Ohms

High Level

(2.5 ~ 6.0V) . . . . . 80 Ohms

Operating voltage . . . . . DC 14.4V

(11V ~ 16V)

Negative ground

Current consumption

Idle . . . . . 800 mA

Full power . . . . . 13A

Dimensions (Approx.) . . . . . 204(235) x

150 x 60 mm

Specifications subject to change without notice.

## EIGENSCHAFTEN

Der SANYO BPA 8040 ist einer der technisch fortschrittlichsten 4 Kanal-Verstärker, die derzeit auf dem Markt erhältlich sind, und für Verwendung in Autos, LKWs oder Booten jeder Art mit einem 12-Volt Bordnetz negativer Erdung konzipiert.

Die meisten Verstärker können problemlos Eingangssignale durchschnittlicher Intensität verarbeiten. Kurze, intensive Stellen zeigen jedoch die Grenzen solcher Geräte, die sich oft in Verzerrungen äußern. Ein Verstärker mit einem großen dynamischen Reservebereich jedoch kann auch die intensivsten Passagen noch ohne Rauschen oder Zerhackungen wiedergeben. Ebenfalls ausgedrückt in Dezibel ist der dynamische Reservebereich, ein Maß für die zusätzliche Leistung, die ein Verstärker für kurze Zeit über seine Nennleistung hinaus abzugeben in der Lage ist.

Der SANYO BPA 8040 läßt sich mit Hilfe des Betriebsartenschalters wahlweise als 2- oder 1-Kanal-Leistungsverstärker betreiben, und liefert eine maximale Ausgangsleistung von 50W x 2 bzw. 100W x 1. Die leistungsfähige HiFi-Bandbreite von 20 - 40 kHz, verbunden mit einem Gesamtklirrfaktor von nur 0,04%, erfüllt auch die Ansprüche der anspruchsvollsten Musikfreunde.

Von heute an können Sie also an jedem beliebigen Ort Tonqualität wie im Konzertsaal oder Tonstudio erzeugen. Bitte lesen Sie die Bedienungsanleitung sorgfältig, um einen einwandfreien Betrieb und

bestmöglichen Toneffekt zu erzielen.

## EINSTELLER UND ANSCHLÜSSE EINGANGSSEITE (INPUT SIDE) (Fig. 1a)

### Pegelschalter LEVEL CONTROL ①

Mit diesem Wählschalter kann die Betriebsart des Gerätes umgeschaltet werden. LOW bedeutet niedriger Eingangspegel, d.h. der BPA 8040 arbeitet als echter Endverstärker und kann mit Signalen aus Vorverstärkern gespeist werden. HIGH bedeutet hoher Eingangspegel. Der Verstärker arbeitet als "Booster" und kann Signale aus den Lautsprecher-Ausgängen normaler Autoradios zusätzlich verstärken.

### Eingangsbuchse INPUT LEFT/RIGHT ②

Diese RCA (Cinch) Eingangsbuchsen können sowohl für Verstärker als auch für "Booster"-Betrieb benutzt werden.

### Pegleinsteller INPUT SENSITIVITY ADJUST ③

Dieser Einsteller muß so eingestellt werden, daß die Empfindlichkeit der BPA 8040 dem Ausgangssignal des angeschlossenen Grundgerätes entspricht.

### AUSGANGSSEITE (OUTPUT SIDE) (Fig. 1b)

Lautsprecheranschlüsse SPEAKER OUTPUT ④

Es kann ein Pärchen 4 Ohm oder 8 Ohm Lautsprecher an das Gerät angeschlossen werden. Durch Niederdrü-

**Stromversorgung POWER SUPPLY ⑤**  
Zum elektrischen Anschluß wird ein abnehmbares Stromversorgungskabel mitgeliefert. Bitte beachten Sie die Farbkennzeichnung für polrichtigen Anschluß:

ROT . . . . . 12V Gleichstrom —  
— ZUR BATTERIE, NUR POL

SCHWARZ . . . Erde —

— ZUM CHASSIS

(FAHRZEUGRAHMEN)  
ALS ERDUNG

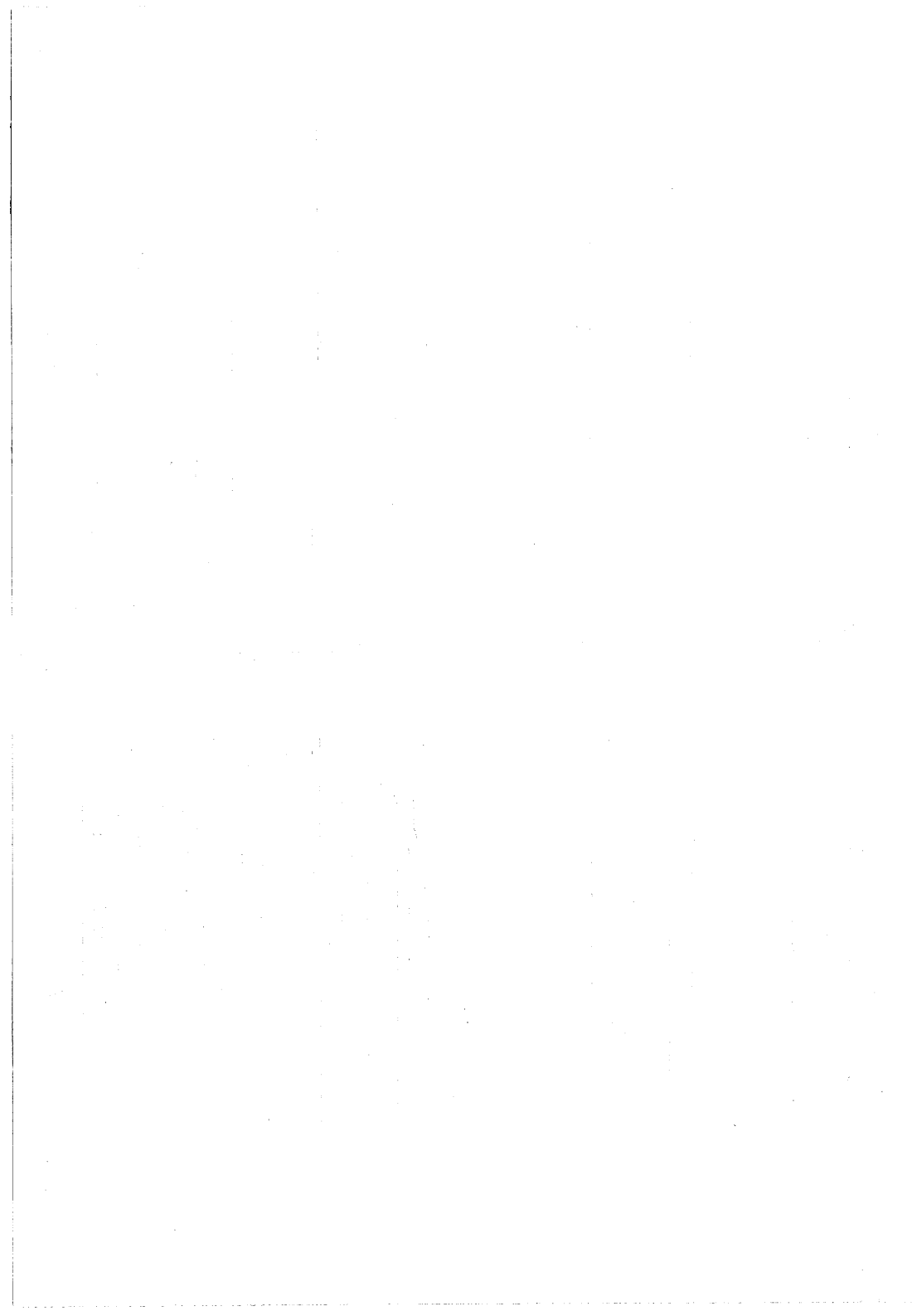
BLAU

— RELAISSTEUERUNG —  
— ZUM AUTOANTENNEN-  
KABEL FÜR VERSTÄRKER-  
SCHALTRELAISKABEL

### BETRIEBSARTEN-SCHALTER ⑥

Mit diesem Wählschalter kann die Betriebsart auf 2-CHANNEL (Stereo-Leistungsverstärker) oder 1-CHANNEL (Mono-Leistungsverstärker) umgeschaltet werden.





## 2-CHANNEL

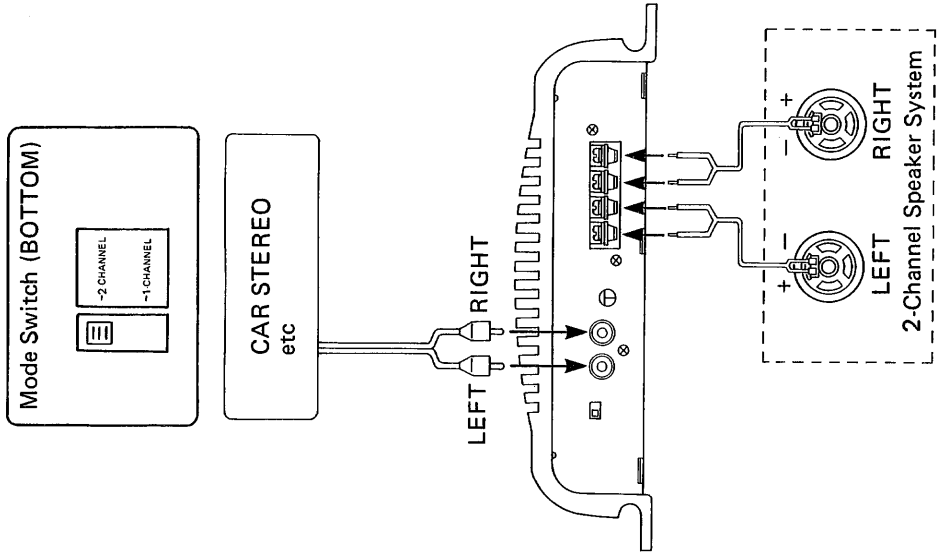


Fig. 3-a

## 1-CHANNEL

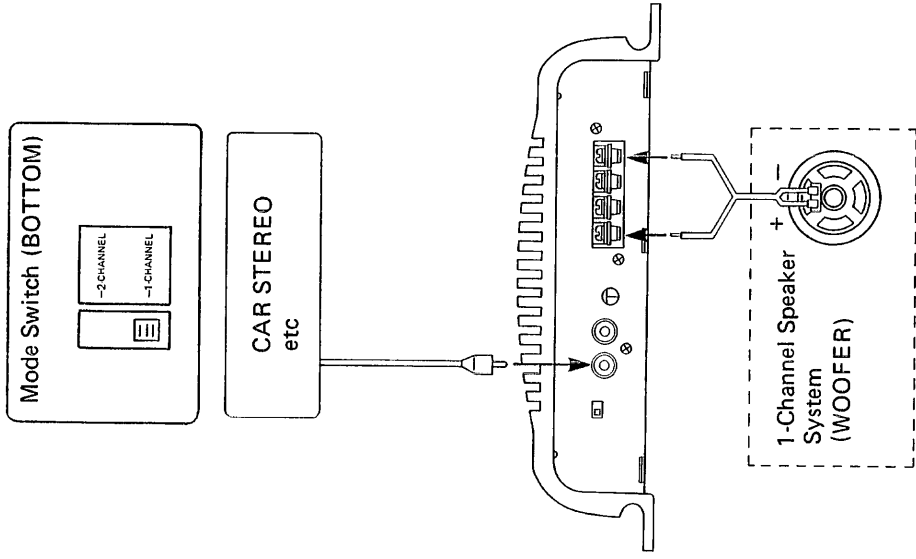


Fig. 3-b



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