

D200

DUAL MONAURAL AMPLIFIER

D100

STEREO AMPLIFIER

CLASS-A-50

CLASS A AMPLIFIER

CLASS-A-40

CLASS A AMPLIFIER

D60

STEREO AMPLIFIER

OWNER'S MANUAL

SOUNDSTREAM®

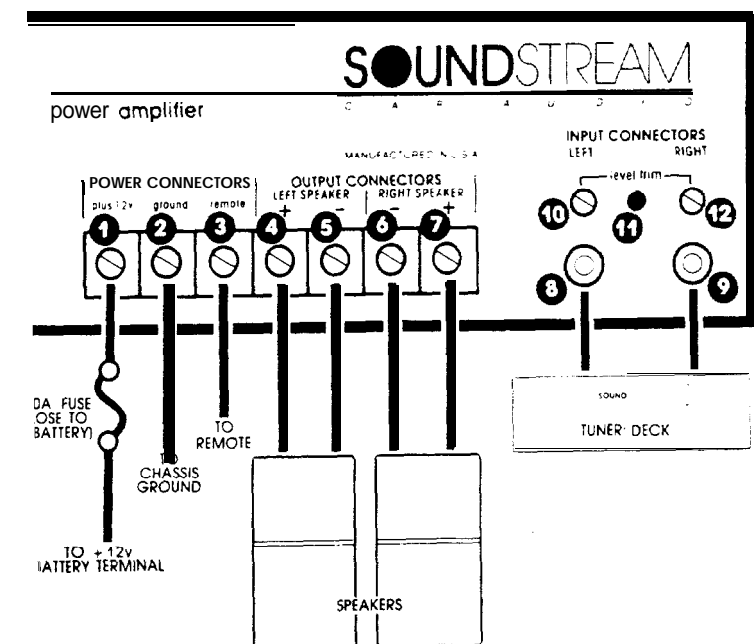
C A R A U D I O

Owner's Manual for SOUNDSTREAM D200, D100, D60, CLASS-A-50 & CLASS-A-40 amplifiers

Thank you for purchasing a Soundstream amplifier. You now own one of the finest amplifiers available, a precision component capable of audiophile-quality performance.

INTENTS	page
Wiring Diagram	2
Design Features	3
Installation	3-5
LED Power Indicator	6
Input Level Adjustment	6
Protection Circuits	6
Bridging the Amps to Mono	6
Service	7
Specifications	7
Address & Phone	8

RING DIAGRAM



LED POWER INDICATOR

Your amplifier (except D60) is equipped with an LED (#11), which glows when power is applied to the amplifier. Since power should be disconnected during installation, these LED should be dark until you are finished. The LED will go out if either the power-line fuse or the internal fuse is blown.

INPUT LEVEL ADJUSTMENT

Left- and right-channel input levels are adjusted by controls (#10) and (#12), respectively. These controls can be turned with a small flat-head screwdriver. Begin by turning both level controls to minimum (full counterclockwise). Turn the system on, and set the volume control on your tuner/deck at its mid-point. Advance the amplifier input level controls until you have reached a comfortable listening level and both channels are in balance.

NOTE: With many tuner/decks, the radio output level is significantly different than the tape output level. Check both sources, and set levels using the lesser of the outputs (usually the tape).

PROTECTION CIRCUITS

Your amplifier is protected against both overheating and short circuits.

If your amplifier shuts down, turn off the system, wait for a few minutes, and turn the system on again. If the amplifier does not come on again:

- Check the loudspeaker wires for **shorts** using an ohmmeter or continuity checker.
- Check the **LED** indicator. If it is out, check the fuse in the power line; if that fuse is blown, replace it with another fuse of identical type and value and try again.

*If the power line fuse is not blown, check the internal fuse. If blown, replace with the identical type and value. If the fuse blows again, call your Soundstream Dealer for service.

If the amplifier continually shuts down because of overheating, the unit may have inadequate ventilation. (See *Location and Mounting* section on Page 3).

BRIDGING THE AMP TO MONO

The D-200, 0100, D60, Class-A-50 and Class-A-40 amplifiers can be bridged to deliver high power into a single channel. (Refer to the *Specifications* listing at the end of this manual for power ratings.)

Bridging requires a simple internal adjustment. Consult your authorized Soundstream dealer if you wish to bridge your amplifier.

(Location & Mounting continued)

It's a good idea to bench test your system before mounting the components. If you have a 12-volt power source, you can connect and test all the components outside the car. Or you can connect them inside the car before screwing them down. Either way, connect the components exactly as you intend to in the final installation; make all power connections last; test the system; then disconnect all power until the final installation is complete.

WIRING

Determine how your car's wiring is laid out, and run your wires in the same locations when possible. Many passageways, wire-hooks, and strain relief devices already exist in your car; take advantage of them. Keep all wiring inside the car. Good standard audio practice suggests keeping signal wires short and away from power lines. Wires can be run under carpet. If you drill a new passage — hole through metal, make sure no burrs remain to scrape the wire; use grommets as needed. All wires should be hidden: an exposed wire can inadvertently be pulled, causing disconnection or shorting. Wires should never be under tension or subject to moisture. Use cable ties to bundle excess wire.

POWER WIRES

NOTE: Your amplifier can only be operated from a 12-VOLT NEGATIVE GROUND electrical system. If your car was produced before 1970 or if you have any doubts, make sure of the type of electrical system you have before making any connections.

For power wiring, use 10-gauge wire or larger. Smaller gauge numbers denote larger wire. The PLUS 12 V terminal (#1 in the wiring diagram) should be connected directly to the positive terminal of your car battery terminal. An in-line fuse should be placed as close as possible to the battery terminal. If you have more than one amplifier, each amplifier should be separately fused. Use the following fuse values:

D-200	.....	30-ampere
D-100	.....	20-ampere
Class-A-50	.....	20-ampere
Class-A-40	.....	15-ampere
D-60	.....	15-ampere

The GROUND terminal (#2) should be connected directly to the automobile chassis with 10-gauge wire or larger. Make this wire as short as possible to prevent noise in the system. A nearby bolt can serve as a ground terminal. Make sure that the wire contacts bare metal, not coated metal or paint.

INPUT CONNECTIONS

Inputs to the amplifier attach by means of standard RCA-type jacks. The Soundstream amplifiers achieve a level of performance at which cable and connector quality is significant: the jacks on your amplifier are gold plated, and we recommend premium gold-plated plugs and high-quality shielded cable.

Connect your left channel signal source to the INPUT LEFT jack (#8), and your right-channel signal source to the INPUT RIGHT jack (#9).

In most cases, the signal source will be the preamp output jacks of a tuner/deck.

Some tuner/decks use preamp output connectors other than RCA jacks, in which case you will need a special cable or adaptor available from your dealer.

If your tuner/deck has speaker outputs and no preamp outputs, you can use the speaker outputs. Wire RCA-type plugs to the ends of your tuner/deck's output wires, making sure that you maintain consistent polarity in all channels.

If you have an equalizer or low-level crossover network(s) for bi- or tri-amping, these components will be inserted between your tuner/deck and your amplifier(s). Refer to the manuals for these components for further details.

OUTPUT CONNECTIONS

Use high-quality loudspeaker cable for best results; use 16-gauge cable as a minimum size. Connect your left channel loudspeaker(s) to the LEFT SPEAKER+ and LEFTSPEAKER- terminals (#4 and #5); connect your right channel loudspeaker(s) to the RIGHT SPEAKER+ and RIGHTSPEAKER- terminals (#7 and #6).

The terminals on your loudspeakers are marked for polarity, and loudspeaker wire is coded by color or by markings on the jacket. Be sure to connect the left and right channels with the same polarity. Loudspeaker manufacturers are not consistent in their polarity markings, so if you have loudspeakers of different types connected to the same amplifier terminal, verify correct polarity by ear. The correct polarity produces the most bass; incorrect polarity produces less bass and a strangely dislocated sound image on mono material.

If you have more than one amplifier: for each amplifier and its loudspeakers, the left and right channels must always be wired with the same polarity. But from one amplifier to the next, correct polarity may be the same, or it may be reversed. This is because of differences in amplifier design, the nature of crossover filters, and other factors. Again, experiment and verify the correct polarity by ear.

REMOTE POWER-ON CONNECTION

If your tuner/deck has a remote power-on control wire or terminal, connect it to the REMOTE terminal (#3) on your amplifier. This is a control line, not a power line, so small wire (18-20 gauge) is acceptable.

If your tuner/deck has no remote power-on control labeled as such, but has a power antenna control, it may be possible to wire the power antenna control to the REMOTE terminal.

If your tuner/deck has neither a remote power-on control wire nor a usable power antenna control, it will be necessary either to connect the REMOTE terminal to a +12-volt source which is switched by the ignition key, or to connect the REMOTE terminal to a constant +12-volt source through an on-off switch you install in a location accessible to the driver.

Do not connect the REMOTE terminal directly to a constant +12-volt line without a switch; this would keep the amplifier on at all times and drain your battery when the motor is off.

DESIGN FEATURES

Only premium parts are used in your Soundstream amplifier, such as metal-film resistors, gold-plated input connectors, and immersible sealed potentiometers. Each output device is individually rated at 125 watts. The case is equipped with generous heat sinks, and thermal protection is provided. Input sensitivity is adjustable to match any tuner/deck -the amplifier can even be used as a power booster.

All gain devices are biased by regulated active current sources, so that even low-frequency performance is unaffected by supply-line noise and temperature fluctuations. There is no current limiting, and the amplifiers will drive fully reactive loads.

Soundstream amplifiers can be bridged to deliver high power into a single channel. The D200 features dual-monaural construction, with fully independent power supplies. The Class-A-50 & Class-A-40 operate in pure Class A mode for the ultimate in sonic transparency. And despite their technological sophistication, the Soundstream amplifiers are elegantly simple in design.

INSTALLATION

Proper installation and adjustment will reward you with reliable operation and optimum performance. Automotive sound system installations can be tricky, especially for first-timers. For this reason, you may want to consider using a professional installer who has the tools and more importantly, the experience to do the job right. If you decide to install your equipment yourself, we hope that this manual will serve as a helpful guide.

LOCATION & MOUNTING

The first step in installation is thorough planning. Choose the location for your amplifier carefully. The amplifier should be located in either the passenger compartment or the trunk, never in the engine compartment or in any outside location exposed to dirt and moisture. Adequate ventilation is important; allow enough space so that air can circulate around the heat sinks. If the amplifier is mounted vertically, mounting the heat sink fins vertically will optimize heat dissipation.

The Class-A-50 & Class-A-40 in particular tend to run hot because of Class A operation. This is no cause for concern provided that ventilation is adequate. Make sure that the installed amplifier will not interfere with normal operation of the car. For example, if you locate the amplifier under a front seat, make sure that it does not interfere with seat adjustment, that it will not be exposed by repositioning the seat, and that the seat does not press on the amplifier when occupied. If you install the amplifier in your trunk, make sure that it is not an obstruction.

It is best not to locate the amplifier near your antenna, because the switching power supply can interfere with AM reception.

Your amplifier should be mounted firmly to your car's interior with the four screws/washers provided. Use your amplifier as a template for making pencil-marks where you intend to drill. (Do not operate your drill through these mounting holes.)

SERVICE

Your Soundstream amplifier is protected by a limited warranty. Please read the warranty statement supplied with this manual.

Should any problem occur, contact your dealer, or you may contact Soundstream directly. **DO NOT send your amplifier to Soundstream without first obtaining a return authorization number.** This will facilitate repairs and will allow us to return your unit in the shortest possible time

SPECIFICATIONS

THD	Less than 0.1%; 20 Hz - 20 kHz, at full rated power into 4 ohms
IHF	Greater than 100dB
Damping	Greater than 200
Power output	
D200	
Dual channel	100 watts continuous per ch into 4 ohms, 20 Hz - 20 kHz 120 watts continuous per ch into 2 ohms, 20 Hz - 20 kHz
Bridged Mono	240 watts continuous into 4 ohms 20 Hz - 20 kHz
D100	
Dual channel	50 watts continuous per ch into 4 ohms, 20 Hz - 20 kHz 60 watts continuous per ch into 2 ohms, 20 Hz - 20 kHz
Bridged Mono	120 watts continuous into 4 ohms, 20 Hz - 20 kHz
Class-A-50	
Dual channel	25 watts continuous per ch into 4 ohms, 20 Hz - 20 kHz 45 watts continuous per ch into 2 ohms, 20 Hz - 20 kHz
Bridged Mono	90 watts continuous into 4 ohms, 20 Hz - 20 kHz
Class-A-40	
Dual channel	16 watts continuous per ch into 4 ohms, 20 Hz - 20 kHz 25 watts continuous per ch into 2 ohms, 20 Hz - 20 kHz
Bridged Mono	60 watts continuous into 4 ohms, 20 Hz - 20 kHz
D60	
Dual channel	30 watts continuous per ch into 4 ohms, 20 Hz - 20 kHz 45 watts continuous per ch into 2 ohms, 20 Hz - 20 kHz
Bridged Mono	80 watts continuous into 4 ohms, 20 Hz - 20 kHz
Dimensions	
D200	2 ⁵ / ₁₆ " x 7" x 11 ¹ / ₈ "
D100	2 ⁵ / ₁₆ " x 7" x 6 ¹ / ₈ "
Class-A-50	2 ⁵ / ₁₆ " x 7" x 6 ¹ / ₈ "
Class-A-40	2 ⁵ / ₁₆ " x 7" x 6 ¹ / ₈ "
D60	2 ⁵ / ₁₆ " x 7" x 4 ¹ / ₄ "