



MODEL 1001SW[®] **(1995-MSRP \$375.00)**

OWNER'S MANUAL AND INSTALLATION GUIDE

INTRODUCTION

Your new **LINEAR POWER[™]** amplifier employs a sophisticated design combining reliability, high power, low distortion, and freedom from external noise. When properly installed, it will give long and faithful service. When combined with other high quality components, it will be the heart of a superb system.

1001SW TECHNICAL DESCRIPTION

The **Model 1001SW[®]** is a dedicated subwoofer amplifier with a built-in variable crossover. This unit is 2 ohm or 4 ohm capable, delivering 100 watts of power into a 4-ohm load and 200 watts into a 2-ohm load.

The unregulated pulse width modulated driven power supply of the **1001SW[®]** uses mosfet switching transistors for high current capacity and improved efficiency. Over current and thermal protection circuitry are used to insure long life and reliable operation. The speaker output is also internally fused to protect against any mishaps that might occur in wiring or under extreme loading conditions.

The amplifier section of the **1001SW[®]** utilizes an all-discrete design to insure low noise and distortion levels. The output transistors are capable of producing high currents, yet only operate at a fraction of their full rating.

The 12dB/octave crossover is switchable between 60,80 and 110Hz, with high pass outputs for use in multi-amp systems. The gain control is infinitely variable which permits optimal signal matching for lowest noise and lowest distortion with virtually any source.

INSTRUCTIONS

Read the following instructions through completely. If they appear too complicated, we recommend that you have an authorized **LINEAR POWER™** Dealer perform the installation.

WIRING

1. Disconnect battery ground cable before making any power connections.

2. BLACK WIRE - Connect this wire to a clean, unpainted metal surface in the car.

3. RED WIRE - Connect this wire to the battery's positive (+) terminal. A fuse should be installed within 18 inches of the battery connection and another fuse where the connection to the amplifier is made. Remember, use the proper size fuses. The **1001SW®** uses a 25-amp fuse.

WARNING: USING OVERSIZED FUSES IS DANGEROUS AND WILL DAMAGE YOUR AMPLIFIER.

4. RED AND WHITE WIRE - is connected to the radio's "turn on lead" or power antenna remote lead. When neither of these exists you may connect this lead to a +12 Volt wire that is on when the car ignition is on or in accessory position.

5. RCA (phono) JACKS - The **1001SW®** has 2 sets, one marked **INPUT** and the second marked **HIGH PASS OUT**. The first set will accommodate either high or low level signals. If possible use good quality shielded cable for low-level inputs. For high-level inputs solder low power speaker wires to RCA connectors with the center pin as positive.

The second set of RCA jacks marked **HIGH PASS OUT** are for use with a second amplifier used to run midrange and treble speakers without the need for an external active crossover. (See crossover selection for more information).

6. SPEAKER CONNECTION - Insert speaker wires into plug positive (+) to the left slot and negative (-) to right slot. The **1001SW®** is rated at 4 ohms and is capable of operating into 2 ohms minimum (**do not** use less than a 2 ohm load as this will cause amplifier failure and damage your amplifier).

OPERATION AND ADJUSTMENT

CROSSOVER SELECTION:

Remove plug on bottom of amplifier and select frequency, which sounds best with your system by placing the switch at one of the 3 positions marked 60Hz, 80Hz or 110Hz. This also sets the high pass output frequency. When this is accomplished, replace plug.

GAIN ADJUSTMENT:

Set the amp gain to minimum, turn the source up until it just starts to distort, then back down slightly. This is the point where the output of the source is cleanest. Now, bring the gain of the amp up until it just starts to distort and back it down slightly. This will allow the source and amp to reach maximum usable output at the same time.

MOUNTING

1. The amplifier will work best if it is kept as cool as possible. Mount in a position that allows air to flow freely through the fins. Be sure there is ample space above the amplifier to avoid trapping heated air rising from the amplifier. The amplifier should not be mounted upside down. Avoid mounting any amplifier in the dash or on the firewall to avoid noises being radiated directly into the case.
2. Mount your amplifier in a position that allows ample room for gain adjustments, and the installation, removal and attachment of leads.
3. The case of your amplifier is designed to act as a noise shield. To maintain this protection, be sure the metal case of the amp does not touch the metal of the car. Do not remove or damage the rubber grommets, which provide electrical insulation and vibration isolation.

OPERATION/ADJUSTMENT

The output of most any car audio equipment will follow a common distortion curve. This curve will show that the distortion is at its lowest level right before the amp reaches full rated output. After that point, the distortion increases rapidly to unusable levels. For any system to operate at minimum distortion with minimum noise and still reach full power output, the equipment should be aligned to operate at the same point on the curve at the same time.

In a basic system, using a single amplifier, set the amp gain to minimum, turn the source unit up until it just starts to distort, then back down slightly. This is the point where the output of the source is cleanest. Now, bring the gain of the amp up until it just starts to distort and back down slightly. This will allow the source and amp to reach maximum usable output at the same time.

GENERAL TROUBLESHOOTING

NO SOUND

Check all connections. Check main power fuse. Check accessory fuse of your vehicle. Check to see that +12Vdc is present at the amplifier on the power wire, and on the red/white remote turn-on wire. Check for a solid ground connection. Check that the main music source is putting out signal.

BLOWS FUSES

check all connections to be sure no wires are touching each other or the chassis of the vehicle or any other equipment in your install. Check that your speakers are in proper working order.

SHUTS OFF

As this amplifier is equipped with thermal and short circuit shut-down electronics, in the event of high ambient temperature or improper speaker impedances, the amp will turn itself off. To avoid damage to speakers, turn down the volume while waiting for the amp to turn itself back on. If this occurs repeatedly, use a fan to cool the amplifier and check for proper speaker loads and connections.

SERVICE OR REPAIR

To obtain modification, service or repair, please contact our **ONLY Authorized LINEAR POWER™ Product Service Center:**

T.I.P.S. INC.

3455 Lanell lane, Pearl, MS 39208

(601) 932-8477

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SPECIFICATIONS

1001SW©

Power output @ 4 ohms RMS @ 12.5 volts	100X1
Power output @ 2 ohms RMS @ 12.5 volts	200x1
THD @ full output 20-20KHz	.05%
Slew Rate volts/microsecond	8Vms
Damping factor @ 4-ohms/2-ohms	>100/50
Signal to Noise Ratio (max/min gain)	80 dB/94dB
Maximum current	
4 ohms	20A
2 ohms	30A
Idle	.6A
Fuse rating	30A
Dimensions	2x7.7x9.6

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