



DPSQ50[©] **SERIES 218[©]**

4 CHANNEL AMPLIFIER WITH ELECTRONIC VARIABLE CROSSOVER

OWNER'S MANUAL AND INSTALLATION GUIDE

INTRODUCTION

You have purchased an amplifier that leads the way with sound quality, reliability and features. This high performance amplifier delivers what you ask for; smooth effortless listening and hard driving power to get you down the road. **LINEAR POWER[™]** has been a name recognized since 1975 as a product delivering high quality and audio excellence. Now, you have the result of that experience.

Features include; Built-in adjustable crossover networks offering 12dB of slope, switchable to high-pass, low-pass, band-pass, or full range. A line out has been provided to allow for expansion of your system which also features an adjustable crossover range of high-pass, low-pass, or full range. Gold plated 5 way speaker binding posts allow for ease of connection. This amplifier features the **DPS[©]** (Dynamic Power Supply) system famous on all of our **Series 218[©]** amplifiers. A panel mount fuse holder makes changing the fuse a breeze. With all this, and more, you Are sure to rest easy as you cruise the highways and byways. Enjoy the Music!!

IMPORTANT NOTICE:

The **DPSQ50[©]** is **NOT** 2 ohm mono stable. While it may be used in 2 ohm stereo, if you hook-up this amplifier in 2 ohm mono it will **DAMAGE** the unit and **VOID** your warranty. For further information on this, or assistance to calculate your total speaker load impedance, please call our Tech Hotline.

DPSQ50© CONTROL PLATE

(1) STATUS LED'S

GREEN LED: This indicator tells you that the unit has power and is turned on when lit. If this LED is on you know that you have correct polarity in your power hook-ups.

YELLOW LED: This indicator tells you that the unit has shutdown due to overheating. When the unit has cooled down to proper operating temperature this LED will go out. You may then turn the unit back on. Make sure you're not overdriving the unit and that it has plenty of airflow around it, to avoid the overheating problem.

RED LED: This indicator tells you that the unit has shutdown due to excessive current draw. This will occur if you have too low of speaker impedance, a shorted speaker, or a shorted speaker wire. When you have corrected the problem simply turn the unit off and then back on to clear this indicator.

(2) CHANNEL SET B CONTROLS

MODE SWITCH: This switch selects the crossover mode for Channel Set B left and right channels.

FREQUENCY ADJUST CONTROL: This control is used to set the range of the selected crossover mode frequency.

INPUT LEVEL CONTROL: This control is used to set the input sensitivity of Channel Set B. Use this control to match the voltage output of your source unit to the **DPSQ50©** inputs. In minimum position (fully counter-clockwise) the **DPSQ50©** will expect an input of 5 volts RMS. In maximum position (fully clockwise) the **DPSQ50©** will expect an input of 150 mVolts RMS.

RCA (phono) INPUT JACKS: This is where you connect your source unit to Channel Set B.

(3) CHANNEL SET A CONTROLS

MODE SWITCHES: These switches select the crossover mode for Channel Set A left and right channels.

BANDPASS ADJUST CONTROLS: These controls are used to set the range of the selected crossover mode frequency.

INPUT LEVEL CONTROL: This control is used to set the input sensitivity of Channel Set A. This control is used exactly as described above in the Channel Set B section.

RCA (phono) INPUT JACKS: This is where you connect your source unit to Channel Set A.

DPSQ50® CONNECTOR PLATE

(1) LINE OUT AND CONTROL

RCA (phono) LINE OUT JACKS: These jacks allow you to connect this unit to another amplifier. This output is a line level connection.

MODE SWITCH: This switch selects the crossover frequency of the line out RCA jacks. The cutoff frequency of the line out is adjusted by the High-pass Adjustment of Channel Set A. This adjustment works only in high-pass and low-pass modes.

(2) SPEAKER OUTPUTS

OUTPUTS: These 5 way binding posts are for connecting to your speakers. Be sure that if you connect this unit in bridged mono operation, that your impedance is not lower than 4 ohms or else you will damage the unit and void your warranty.

(3) POWER BLOCK

POWER BLOCK: This terminal is where you connect your Power, Ground, and remote turn-on wires to this unit.

(4) FUSEHOLDER

FUSEHOLDER and FUSE: This unit comes with a **25 amp ATC** style fuse. If you must replace the fuse for any reason, be sure you use the same type and rating of fuse.

MODE SWITCH LEGEND

CHANNEL SET A			CHANNEL SET B		LINE OUT	
SW1	SW2	FUNCTION	SW3	FUNCTION	SW4	FUNCTION
1	1	Band Pass	1	High Pass	1	High Pass
2	1	Low Pass	2	Low Pass	2	Low Pass
3	2	High Pass	3	Full Range	3	Full Range
3	3	Full Range				

2 CHANNEL OPERATION

In addition to operating as a 4 channel amplifier, the **DPSQ50**© also has the capability of operating as a true high power 2 channel unit. To accomplish this, you need to open the amplifier case. Do this as follows:

1. Remove all connections from the unit (if it has already been installed).
2. Remove the 6 screws from the Control Plate face of the amplifier. (Two of them hold the RCA jacks to the plate.)
3. Turn the unit over so that the bottom plate is facing up and the control plate is facing you.
4. Remove the bottom plate by sliding it out toward you.
5. Now look for the little blue plastic jumpers. You will find them on the left, front corner of the PC Board, just behind the Channel Set A RCA input jacks.
6. Place both jumpers so that they connect each of the wires.
7. Replace the bottom plate and control plate and install the **DPSQ50** in your vehicle.

By using the 2 Channel operation you won't have to buy extra splitters and have a messy installation if your source unit only has one set of line level outputs. This mode is also useful if you only plan to use the **DPSQ50**© just to drive your subs.

HINTS ON INSTALLATION

- Always set the Mode switches before you adjust the frequency controls. The frequency controls are used to further tailor the sound from your speakers.
- Make sure your signal cables are as far away as possible from any vehicle electrical wiring, and as far away as possible from your speaker cables
- Make sure that all the components in your sound system are properly and securely grounded. This will help reduce noise caused by "ground loops".
- Always make sure your amplifier(s) have plenty of air circulation to prevent overheating. This will extend the life of the unit(s).

We hope you will completely enjoy your **LINEAR POWER™** experience. Feel free to call our Tech Hotline if you have trouble with the installation of your **DPSQ50©**. Or if you just need some helpful hints. We're sure we'll be hearing from you on the road!

GENERAL TROUBLESHOOTING

No Sound: Check that the green power LED is on. If the green power indicator is lit, check all signal input and speaker connections. If the green power LED is not lit, check for +12 Vdc on +12 V and REM inputs and check for a solid ground connection on power connector. If yellow thermal LED or red current LED are lit, see the **status indicators** portion of this manual.

Blows Fuses: Check all connections to be sure all power wires do not touch ground or each other. Be sure power connections are not reversed. Check internal transformer configuration for proper setting. Check input level control for proper setting.

Noise Problems: Be sure the metal sleeve on the RCA (phono) jacks does not touch the metal chassis of the vehicle, the heat sink of the amp, or the chassis of any other components in your installation. Route signal cables away from power wires, power connections, speaker wires, engine alternator, and vehicle firewall.

SERVICE OR REPAIR

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

T.I.P.S. INC.

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SPECIFICATIONS

DPSQ50[®]

Rated Power 4 Ohm	50 x 4
RMS Power 4 Ohm @ 12.5 V dc	40 x 4 125 x 2
RMS Power 4 Ohm @ 14.4 V dc	50 x 4 165x 2
RMS Power w/ Music (4 Ohm)	60 x 4 200 x 2
Channel Separation	>80 dB
THD + Noise	.008%
Slew Rate	8 volts/micro-second
Damping Factor (4-ohm/2-ohm)	200/100
Headroom @ 4 ohms stereo	3 dB
Signal-to-Noise	115dB
Frequency Response	5Hz-350kHz
Dimensions	2.8"x9.0"x11.0" 7.1x22.9x27.9cm

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