



**100%**

## **CONTENTS**

(click on a topic to view)

**Congratulations**

**Features and Specifications**

**Operation**

**Installation**

**Wiring**

**Wiring**

**Inputs / Outputs**

**Block Diagram**

**Troubleshooting**

**Warranty**

## ***Congratulations and thank you.....***

for choosing **PrecisionPower** audio equipment. At **PrecisionPower** we proudly design, engineer and manufacture audio products at our facility in Phoenix, Arizona. Our award winning engineering team utilizes innovative technology to consistently deliver Absolutely State of the Art™ performance, sound quality, reliability, and value. This **PrecisionPower** product reflects our commitment to offer you unparalleled versatility and quality for years of dependable service and listening enjoyment.

### **Service**



Do not attempt to service **PrecisionPower** products yourself. Performing exploratory surgery on your audio equipment yourself will void the warranty. Many parts of your **PrecisionPower** gear are custom built to our specifications. Our factory parts are not made available to anyone else nor are they for sale. Our goal is to make sure that your **PrecisionPower** product will always sound as good as the day it was purchased. Contact your authorized **PrecisionPower** dealer about obtaining any warranty service through **PrecisionPower**. (See Warranty inside back cover)

### **FOR YOUR RECORDS:**

Model \_\_\_\_\_

Serial Number \_\_\_\_\_

Purchase Date \_\_\_\_\_

### **Caution!**



The extended use of a high powered audio system may result in hearing loss or damage. While **PrecisionPower** systems are capable of "Concert Level" volumes with incredible accuracy, they are also designed for you to enjoy at more reasonable levels all of the sonic subtleties created by musicians. Please observe all local sound ordinances.

**BACK TO CONTENTS**

## FEATURES / SPECIFICATIONS

PWM Power Supply  
True 24-bit Digital Signal Processing  
Class "A" Analog Stages  
Direct-Coupled Analog Circuitry  
Dual RCA Outputs  
Analog Pass-Through  
Smart Input Selection  
Gold Plated RCA Input and Output Connectors  
Optical and Coax Digital Inputs  
Completely Designed And Handcrafted In The USA  
Three Year Warranty when installed by an  
Authorized *PrecisionPower* Dealer

### Specifications



|                                    |                                  |
|------------------------------------|----------------------------------|
| Oversampling                       | 8 fs                             |
| Frequency Response:                | 5 Hz - 20 kHz $\pm 0.2$ dB       |
| Total Harmonic Distortion:         | <0.01 %                          |
| Channel Separation                 | >90dB                            |
| Digital Inputs :                   | Coaxial and Toslink Optical      |
| Supply Voltage                     | 11 - 15 volts                    |
| Maximum Output (10k $\Omega$ Load) | 4 VRMS                           |
| Output Impedance                   | 30 ohms                          |
| Dimensions                         | 5.125" W<br>13.11" L<br>1.750" H |

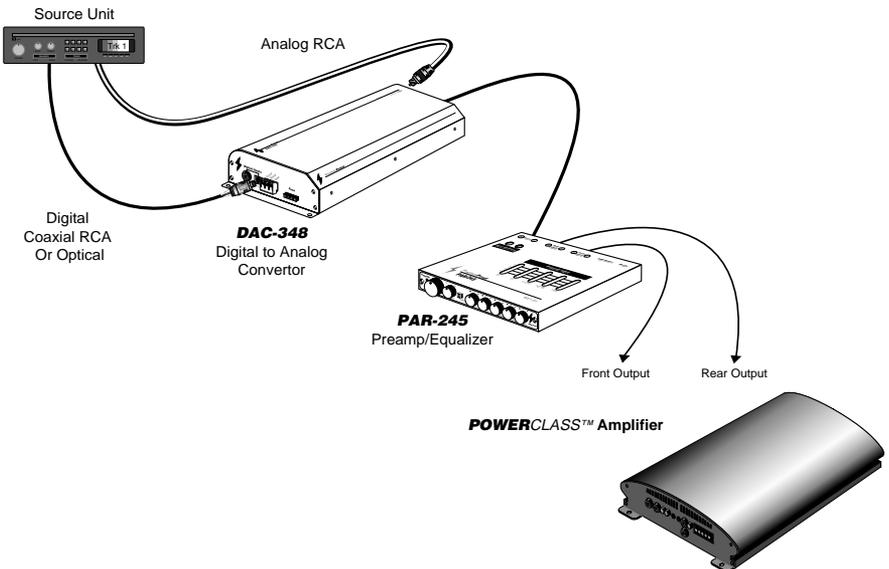
# OPERATION

*PrecisionPower's DAC-348* processes the digital signal directly from the CD player, changer or other digital source. All digital to analog conversion as well as the subsequent filtering and analog treatment of the signal by the stock source unit is replaced by the superior digital signal processing, digital to analog conversion and fully discrete Class A analog circuitry of the **DAC-348**.

Because most digital head units are in fact combined with analog AM/FM and Cassette players, *PrecisionPower* engineers have included analog inputs as well as a Smart Input Selector that monitors the Digital inputs and automatically chooses the appropriate source. To take advantage of this feature you must connect both the Digital (coaxial or optical) and the analog (RCA) outputs to the **DAC-348**.

As you have now bypassed the stock circuitry, the volume control on your head unit will no longer affect the digital signal. You will need to use a preamp or line driver (such as the **PAR-245**) as the master volume control for your system. Refer to the diagram below.

## System Diagram



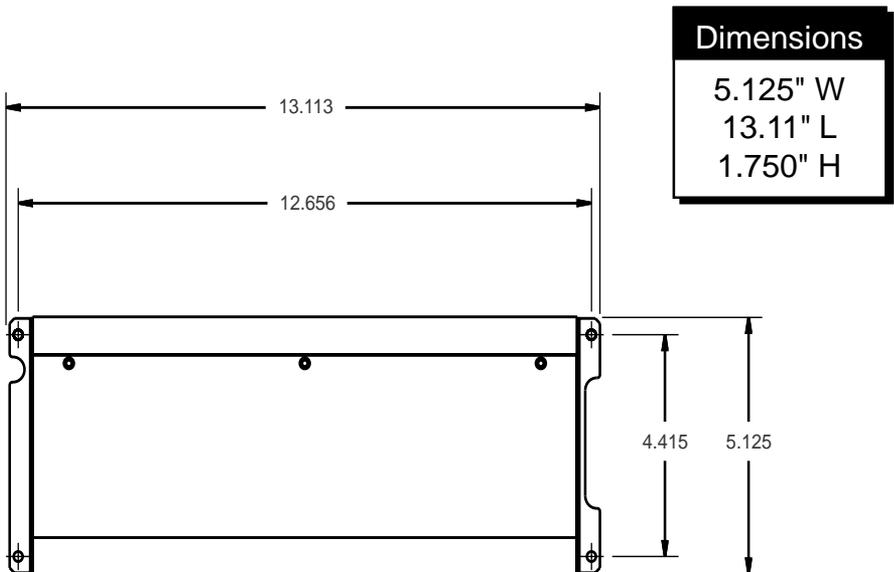
# INSTALLATION / MOUNTING

## Mounting

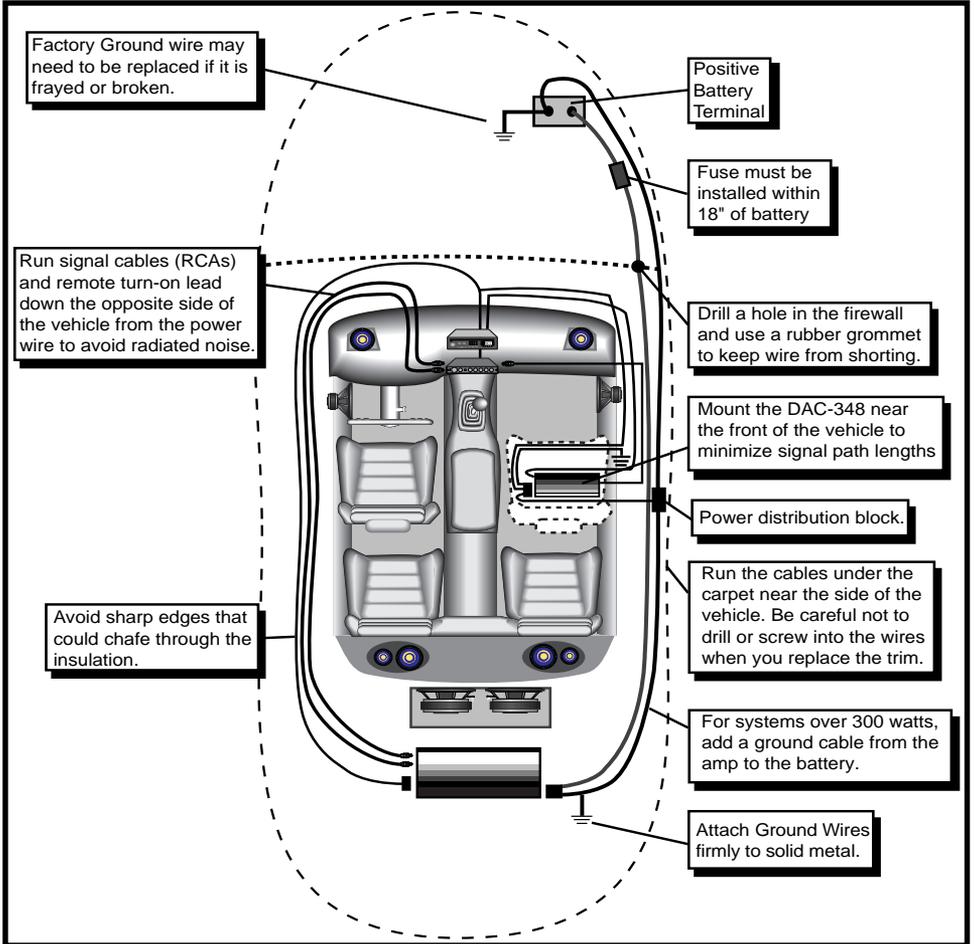


To prevent damage to the DAC while driving, mount it in a secure place. Choosing the appropriate location will depend upon your vehicle and the complexity of your system design. Keep in mind that the output of the **DAC-348** must go to a preamp to control the volume of the digital source. To keep the signal path as short as possible, the **DAC-348** should be mounted as close to the head unit and preamp as possible. Never mount the **DAC-348** in a location that would subject it to immersion or exposure to water.

Once a location has been chosen, securely mount the **DAC-348** with four mounting screws. Be Careful! Inspect the area underneath to be sure you are not drilling into wires, brake or fuel lines, etc. that could be damaged by the drill bit or screws.



# WIRING



## NOTE



Before beginning, disconnect the negative (-) terminal of the battery prior to working on the positive (+) terminal to prevent a short to ground. This is important, unless you want to spend the rest of your life with a nickname like "Sparky," or "Smokey." Reconnect the negative terminal only after all connections have been made.

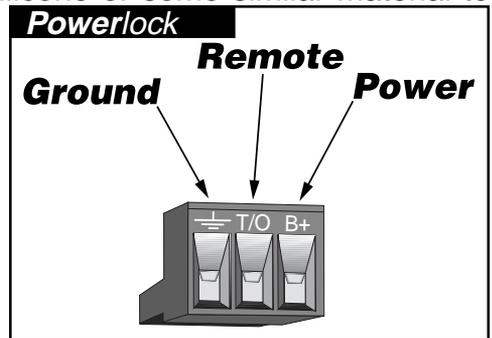
## WIRING

The next step is to connect the Power, Ground, and Remote wires to your **DAC-348**. The power wire should run from the mounting location through the vehicle to the battery or power distribution block. Avoid sharp corners, creases, and sharp body parts. When passing through any metal wall (i.e. firewall etc.), a grommet must be used to prevent the wire from chaffing and shorting to ground.

The ground wire should be of the same gauge as the power wire. As a rule of thumb, use as short a length of wire as possible.

Find a location near the DAC that is metal (the floor is ideal) and clean an area about the size of a quarter to bare metal. Drill a pilot hole in the middle of this area. Be Careful! Inspect the area underneath to be sure you are not drilling into wires, brake or fuel lines, etc. Terminate the wire with a ring connector and attach it to the bare metal using a #8 sheet metal screw and washer (not supplied). We suggest crimping and/or soldering this connection. After the connection is complete, coat the area with silicone or some similar material to prevent rust from developing.

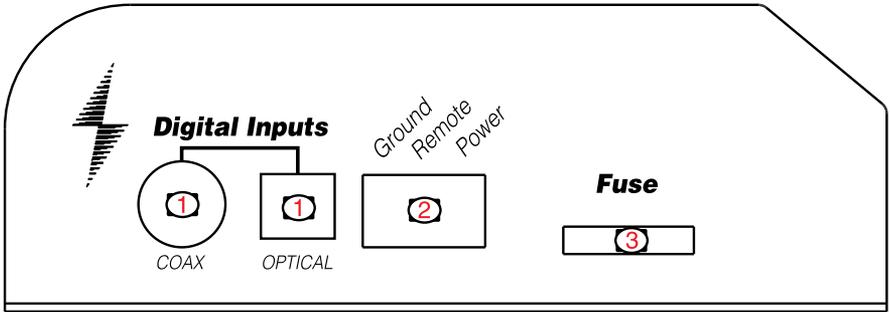
Finally, the remote wire needs to run to the power antenna (or amplifier remote) lead of the head unit. This wire supplies a 12 volt signal to the **DAC-348** when the main system is activated. Once you have routed the power, ground, and remote wires through



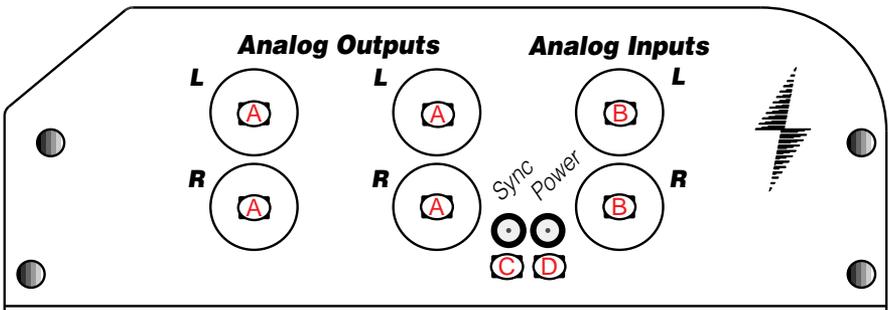
the vehicle, it is time to connect the wires to the **DAC-348**. Be sure that you have not reconnected the ground cable to the negative post of the battery.

Cut off excess wire and, using wire strippers, strip the power, ground and remote cables about 1/8 inch. Locate the power, ground, and remote **Powerlock** connector (supplied). On the top of the connector are three slotted screws. With a small flat-bladed screwdriver, loosen the screws before attempting to insert the cables. After you have inserted the stripped end of each cable into the connector, secure it by tightening the associated screw. Check that each connection is tight. If the wires are secure, the connector may be plugged into the **DAC-348**.

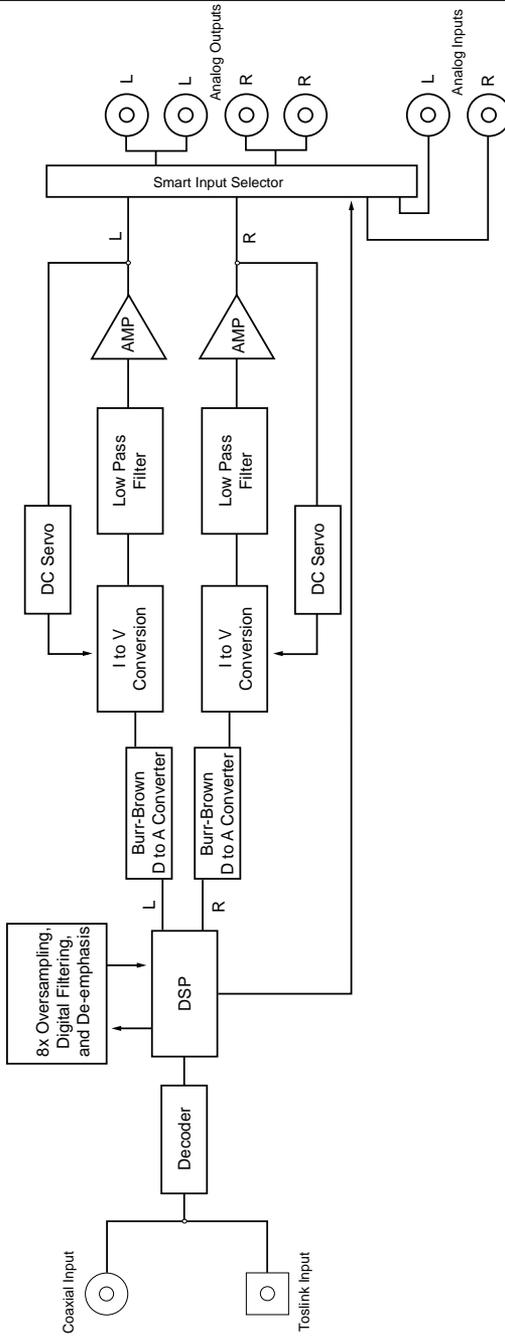
# INPUTS / OUTPUTS



- 1** Connect the Digital output from your source to the appropriate Digital Input connector (coax or Toslink optical).
  - 2** After connecting Power, Ground, and Remote wires, plug in the **Powerlock** connector here.
  - 3** 5 amp Fuse
- A** Parallel Analog Outputs to Preamp.
  - B** Analog Inputs from source unit.
  - C** Sync LED - Red light indicates digital signal being processed.
  - D** Power LED - Red light indicates power on.



# BLOCK DIAGRAM



# TROUBLE SHOOTING

## NO SOUND

IS THE POWER LED LIT?

YES

Check Power and Remote turn-on wire for voltage. Make sure Ground wire is secure.

NO

IS THE SYNC LED LIT?

YES

Unplug the Digital Input cable from the DAC-348

NO

Bypass the DAC-348 by connecting the analog RCA input cables directly to the Preamp (PAR-245).

ANY SOUND NOW?

YES

Problem is in the DAC. See your local Authorized *PrecisionPower* Dealer or call 1-800-62**POWER**.

NO

Problem is elsewhere in the system. Check head unit and amplifiers.

ANY SOUND NOW?

YES

Problem is in the DAC. See your local Authorized *PrecisionPower* Dealer or call 1-800-62**POWER**.

NO

Problem is elsewhere in the system. Check head unit and amplifiers.

## SOUND IN ONE CHANNEL ONLY

IS THE SYNC LED LIT?

YES

Check Balance control. Reverse left and right RCA inputs

NO

SOUND IS NOW IN

**SAME CHANNEL**

Problem is in the RCA cables

**OPPOSITE CHANNEL**

Problem is in the head unit or RCA cables

Reverse left and right RCA outputs

SOUND IS NOW IN

**SAME CHANNEL**

Problem is downstream of the DAC-348

**OPPOSITE CHANNEL**

Problem is in the DAC. See your local Authorized *PrecisionPower* Dealer or call 1-800-62**POWER**.

# WARRANTY

## Three-Year Limited U.S.A. Warranty

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. **PrecisionPower** warrants its products to be free from defects in materials and workmanship under normal use and service for a period of three (3) years from the date of original purchase when the unit is installed by an Authorized Dealer. Non-Authorized Dealer installed products carry a one (1) year parts and ninety (90) days labor limited warranty. The extent and conditions of Limited Warranty are as follows:

1. Authorized Dealer Installed Products: **PrecisionPower** will either repair or replace at no charge, to the original purchaser, any unit which **PrecisionPower's** examination discloses to be defective and under warranty, provided the defect occurs within three (3) years from the date of original purchase when the unit is installed by an Authorized Dealer and the product is returned immediately to **PrecisionPower**. This warranty is not transferable.

2. Non-Authorized Dealer Installed Products: **PrecisionPower** will either repair or replace at no charge, to the original purchaser, any unit which **PrecisionPower's** examination discloses to be defective and under warranty, provided the defect occurs within ninety (90) days from the date of purchase and the product is returned immediately to **PrecisionPower**. Warranty claims beyond ninety (90) days for Non-Authorized Dealer Installed Products will be for parts only and will extend for one (1) year from the date of purchase. This warranty is not transferable.

3. The date of purchase and proof of Authorized Dealer Installation of a PrecisionPower product must be established by an original sales receipt which must accompany the article being returned for warranty work.

4. This warranty shall NOT apply to any **PrecisionPower** product found to have the original factory serial number removed or defaced. All products received (by **PrecisionPower**) for in warranty or out of warranty repair, with their original serial numbers removed or defaced, will NOT be repaired and will be returned to sender, freight collect. Refer to original packaging for the serial number of your component speakers.

5. The provisions of this warranty shall not apply to any **PrecisionPower** product used for a purpose for which it is not designed, which has been repaired or altered in any way, or which has been connected, installed, or adjusted other than in accordance with the instructions furnished in **PrecisionPower's** owner's manual. Nor shall this warranty apply to any part which has been subject to misuse, neglect, or accident.

6. PrecisionPower does not authorize any other persons to assume any other liability in connection with its products. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY PRECISIONPOWER APPLICABLE TO ITS PRODUCTS. ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO PRECISIONPOWER PRODUCTS IS LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. PRECISIONPOWER SHALL NOT BE LIABLE FOR THE INCIDENTAL, CONSEQUENTIAL, OR COMMERCIAL DAMAGES RESULTING FROM THE BREACH OF THIS WRITTEN WARRANTY. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so the above limitations or exclusions may not apply to you.

7. Your product will be serviced on an in-warranty basis within the warranty period for the correction of warranted defects. If improper operation of your **PrecisionPower** product should occur, contact your Authorized Dealer for assistance with the return and factory repair of your **PrecisionPower** product. If an Authorized Dealer is not available, return the unit including your name, telephone number, return address, a copy of your sales receipt, and a description of the problem to:

**PrecisionPower, Inc.**  
**Service Department**  
**4829 S. 38th Street**  
**Phoenix, AZ 85040-2964**

TO RETURN PRECISIONPOWER PRODUCTS OUT OF WARRANTY: Return the unit, postage prepaid, in the original protective carton. Please include a description of the problem and, if desired, a request for an estimate of repair costs. Unless a request for an estimate is included, the unit will be repaired as necessary. Please contact **PrecisionPower** Customer Service at 1-800-62-POWER for questions concerning out of warranty repair charges. Repaired unit will be returned with an itemized statement, C.O.D.

**BACK TO CONTENTS**