





# **Power Dynamics PDC90 Media Player Amplifier Instruction Manual**

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# **Power Dynamics PDC90 Media Player Amplifier**



# **Specifications**

Product Name: PDC90 Media Player

• Reference Number: 172.800

• Version: V1.0

· Certification: CE Certified

• Manufacturer: Power Dynamics

# **Product Usage Instructions**

#### **Important Safety Precautions**

- Read the manual thoroughly before using the unit.
- Follow all instructions to avoid warranty invalidation.
- · Avoid fire and electrical shock risks.
- Do not open the housing as it contains voltage-carrying parts.
- Avoid placing metal objects, liquids, or the unit near heat sources or vibrating surfaces.
- · Do not cover ventilation holes.
- Avoid continuous use and do not repeatedly switch the unit on and off.
- Keep the unit out of children's reach and do not leave it unattended.
- Avoid using cleaning sprays on switches.
- Seek advice from a specialist in case of malfunction.

## **Unpacking Instructions**

When unpacking the product, ensure all components are included as per the manual.

## **Power Supply**

Check the label on the product for the correct mains voltage. Connect directly to mains voltage; do not use dimmers or adjustable power supplies.

Congratulations to the purchase of this Power Dynamics product. Please read this manual thoroughly prior to using the unit in order to benefit fully from all features.

- Read the manual prior to using the unit. Follow the instructions in order not to invalidate the warranty. Take all precautions to avoid fire and/or electrical shock. Repairs must only be carried out by a qualified technician in order to avoid electrical shock. Keep the manual for future reference.
- Prior to using the unit, please ask advice from a specialist. When the unit is switched on for the first time, some smell may occur. This is normal and will disappear after a while.
- The unit contains voltage carrying parts. Therefore do NOT open the housing.
- Do not place metal objects or pour liquids into the unit This may cause electrical shock and malfunction.
- Do not place the unit near heat sources such as radiators, etc. Do not place the unit on a vibrating surface. Do not cover the ventilation holes.
- The unit is not suitable for continuous use.
- Be careful with the mains lead and do not damage it. A faulty or damaged mains lead can cause electrical shock and malfunction.
- When unplugging the unit from a mains outlet, always pull the plug, never the lead.
- Do not plug or unplug the unit with wet hands.
- If the plug and/or the mains lead are damaged, they need to be replaced by a qualified technician.
- If the unit is damaged to such an extent that internal parts are visible, do NOT plug the unit into a mains outlet and DO NOT switch the unit on. Contact your dealer. Do NOT connect the unit to a rheostat or dimmer.
- To avoid fire and shock hazard, do not expose the unit to rain and moisture.
- All repairs should be carried out by a qualified technician only.
- Connect the unit to an earthed mains outlet (220-240Vac/50Hz) protected by a 10-16A fuse.
- During a thunderstorm or if the unit will not be used for a longer period of time, unplug it from the mains. The rule is: Unplug it from the mains when not in use.

- If the unit has not been used for a longer period of time, condensation may occur. Let the unit reach room temperature before you switch it on. Never use the unit in humid rooms or outdoors.
- To prevent accidents in companies, you must follow the applicable guide lines and follow the instructions.
- Do not repeatedly switch the fixture on and off. This shortens the life time.
- Keep the unit out of the reach of children. Do not leave the unit unattended.
- Do not use cleaning sprays to clean switches. The residues of these sprays cause deposits of dust and grease. In case of malfunction, always seek advice from a specialist.
- Do not force the controls.
- This unit is with speaker inside which can cause magnetic field. Keep this unit at least 60cm away from computer or TV.
- This unit is with built-in lead-acid rechargeable battery. Please recharge the battery every 3 months if you are not going to use the unit for a long period of time. Or the battery may be damaged.
- If the battery is damaged please replace with same specifications battery. And dispose the damaged battery environment friendly.
- If the unit has fallen, always have it checked by a qualified technician before you switch the unit on again.
- Do not use chemicals to clean the unit. They damage the varnish. Only clean the unit with a dry cloth.
- Keep away from electronic equipment that may cause interference.
- Only use original spares for repairs, otherwise serious damage and/or dangerous radiation may occur.
- Switch the unit off prior to unplugging it from the mains and/or other equipment. Unplug all leads and cables prior to moving the unit.
- Make sure that the mains lead cannot be damaged when people walk on it. Check the mains lead before every use for damages and faults!
- The mains voltage is 220-240Vac/50Hz. Check if power outlet match. If you travel, make sure that the mains voltage of the country is suitable for this unit.
- Keep the original packing material so that you can transport the unit in safe conditions.

This mark attracts the attention of the user to high voltages that are present inside the housing and that are of sufficient magnitude to cause a shock hazard.

This mark attracts the attention of the user to important instructions that are contained in the manual and that he should read and adhere to.

The unit has been certified CE. It is prohibited to make any changes to the unit. They would invalidate the CE certificate and their guarantee!

**NOTE:** To make sure that the unit will function normally, it must be used in rooms with a temperature between 5°C/41°F and 35°C/95°F.

Electric products must not be put into household waste. Please bring them to a recycling centre. Ask your local authorities or your dealer about the way to proceed. The specifications are typical. The actual values can slightly change from one unit to the other. Specifications can be changed without prior notice.

Do not attempt to make any repairs yourself. This would invalid your warranty. Do not make any changes to the unit. This would also invalid your warranty. The warranty is not applicable in case of accidents or damages caused by inappropriate use or disrespect of the warnings contained in this manual. Power Dynamics cannot be held

responsible for personal injuries caused by a disrespect of the safety recommendations and warnings. This is also applicable to all damages in whatever form.

#### **UNPACKING INSTRUCTION**

**CAUTION!** Carefully unpack the box upon receipt. Check the contents to ensure that all parts are present and have been received in good condition. Notify the shipper immediately and retain packaging material if any parts appear damaged from shipping or the package itself shows signs of mishandling. Save the package and all packaging materials. If the product must be returned, it is important that the product is returned in the original factory box and packaging. If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

#### **POWER SUPPLY**

The label on the back/under side of the product indicates the mains voltage to which it must be connected. Check that the mains voltage corresponds to this. Any other voltage than the one indicated may cause irreparable damage to the unit. The unit must also be connected directly to the mains voltage and no dimmer or adjustable power supply may be used.

Always connect the device to a protected circuit (circuit breaker or fuse). Make sure the device has an appropriate electrical ground to avoid the risk of electrocution or fire.

## **FRONT PANEL**



## 1. LCD Display

LCD display shows mode, volume

# 2. USB port

Port for USB stick, USB card reader or compatible external hard drive for playback

#### 3. AUX input jack

This stereo AUX input is for using CD, DVD players, Tape Decks or other line sources

#### 4. Mode

- Press this button to select the mode: LINE IN/BT/DAB
- DAB mode is indicated on the display as frequency

## 5. Previous

- · Press to get back to previous track
- Press and hold to decrease the volume

## 6. Pause/Play

- Press to start/resume or pause
- · Press in DAB mode for scan

#### 7. Next

- Press to get to next track
- · Press and hold to increase the volume

# 8. Repeat

Press this button to repeat the track, folder, all tracks or not repeat

#### 9. Mute

Press to (un)mute for any source

#### 10. IR sensor

Receive the IR signal from the remote control

#### 11. MP3 volume control

Rotate to adjust the volume level control of MP3 player. Always turn back the MP3 level control to the minimum before switch on

## 12. Mic/line 1 volume level control

Rotate to adjust the volume level control of the line 1/ mic 1 input. Always turn back the level control to the minimum before switch on

#### 13. Mic/line 2 volume level control

Rotate to adjust volume level control of the line 2/ mic 2 input. Always turn back the level control to the minimum before switch on

#### 14. Mic/line 3 volume level control

Rotate to adjust the volume level control of line 3/ mic 3 input. Always turn back the level control to the minimum before switch on

#### 15. **AUX 1 level**

Rotate to adjust volume level control for aux 1, Always turn back the level control to the minimum before switch on

#### 16. AUX 2 level

Rotate to adjust volume level control for aux 2, Always turn back the level control to the minimum before switch on

#### 17. Bass

Rotate to adjust the low (bass) frequencies, maximum increase +10 dB or maximum decrease of -10 dB

## 18. Treble

Rotate to adjust the high (trebble) frequencies, maximum increase +10 dB or maximum decrease of -10 dB

## 19. Master

Rotate to adjust the master volume. Always turn back the output volume control to the minimum before switch on

## 20. Led indicators

The current system operation is indicated on the 6 digit LED bar graph. The LED's monitor shows the current output level within a range of -20 dB and 0 dB

#### 21. Power Switch

This is the main power ON/OFF switch

#### **REAR PANEL**



# 1. AC connection and fuse holder

This connector is used to supply main power to the unit. For instructions on how to change the fuse (bottom),

see "Replacing the fuse"

## 2. R/L XLR output

XLR for connecting speakers

## 3. Speaker output

Speaker output terminal for connecting speakers

## 4. DC 24V Input

The main DC power supply (24V) has to be applied to this connector. This is a standby power inlet to connect a 24V battery

# 5. REC output

RCA rec output for connecting a CD recorder, DVD-players, tape decks and other devices

## 6. AUX input

RCA line input connectors for auxiliary input

## 7. Switch for Phantom power/Switch for line/microphone

- Phantom switch on when using a condenser microphone that needs 48V phantom power
- · Line/mic switch on for line/mic when using a microphone

# 8. Connector XLR

Connector for a microphone. Making any changes when the amplifier is powered up may cause loud bangs through the system which can damage the speakers

## 9. Mic prio gain

Match the output voltage so that the signal is not overdriven, which may cause clipping and distortion

#### 10. Antenna connection

This connector is used to connect an external antenna to get the best possible reception

# **REMOTE CONTROL (ONLY FOR MP3 MODULE)**



## 1. Power

On/Off

#### 2. Mode

Press to switch between modes: LINE IN/BT/DAB

## 3. Un(Mute)

Press to mute or unmute

4. **EQ** 

Press to change EQ preset settings

# 5. Pause/Play

Press to pause/play MP3

#### 6. Vol +/vol -

Press to increase/decrease volume

# 7. Previous/Next

Press to go to previous or next track

#### 8. Scan

Press for scanning radio stations. When in DAB mode it will scan automatically

## 9. Repeat

Press to repeat track

## 10. Number pad

Numbers (0-9) to select numbers for songs

#### **OPERATION**

When all connections to the amplifier are made, turn all rotary controls down and switch on the power and the power button LED will illuminate. Turn BASS and TREBLE controls to the 12 o'clock position (pointing straight up) and turn MASTER rotary control up part way for testing.

- Ensure a signal is being fed to one of the line inputs and gradually increase the volume control for that channel until the output is heard through the speakers. Turn up the MASTER to the maximum required volume level and reduce the channel volume control if necessary.
- **Note:** The initial test can be made using the built-in USB/SD audio player. The output of the amplifier is represented on the level meter LEDs. Anything longer than a short flash of this Clip LED may be indicating distortion or clipping of the output signal and the MASTER should be turned down.
- If a microphone is connected to MIC1 input, make sure it is switched on and if it requires phantom power, make sure this feature is enabled. Gradually increase its volume control whilst speaking into the microphone until the required volume level is reached.
- The microphone should not be able to "hear" the speakers, which can cause feedback (squealing or howling noise).

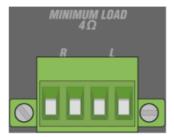
In addition to channel and MASTER volume controls, there are BASS and TREBLE EQ controls to adjust the tone of the overall output. At the 12 o'clock position, these controls are applying no effect to the signal (no boost or cut). Moving the BASS control clockwise boosts the low frequencies in the audio, whilst moving it anticlockwise will cut these low frequencies. Likewise, moving the TREBLE control clockwise boosts the high frequencies in the audio, whilst moving it anticlockwise will cut these high frequencies. Adjust these EQ controls to suit the type of audio signal or compensate for the room acoustics.

#### **DIPSWITCHES**



- Adjacent to the XLR line microphone input for each channel is a bank of 2 DIP switches.
- The left-hand switch is marked 'Phantom', which sets phantom power for the corresponding XLR connector. When this is switched on you can use a condenser microphone.
- The right hand DIP switch is marked mic/line. When this is switched on it enables to set channels to mic/line level. Noted: Be sure to make these DIP switch settings when the amplifier is switched off. Making any changes when the amplifier is powered up may cause loud bangs through the system which can damage the speakers.

#### SPEAKER OUTPUT



- For optimum performance, it's important to use cables specifically designed for speaker use. Do not use shielded "guitar" signal cables for connection to these speakers.
- The low impedance mode of the PDS series speaker has a nominal impedance of 8Ω. If there is the need to
  connect multiple speakers in parallel, be sure to follow the amplifier's specifications regarding the minimum
  allowed impedance. Most amplifiers allow for a minimum of 4Ω impedance, which would translate to two PDS
  speakers connected in parallel per side.
- Selection of the appropriate wire gauge is important for system operation. A cable that is too light will result in amplifier power being wasted due to the series resistance of the cable. In addition, loss of low-frequency performance may be experienced due to a degraded damping factor.

#### **DC INPUT**



- The PDC90 can be operated by 24V DC power for mobile applications (boats, fairgrounds etc.).
- For this type of application, connect the 24V DC power source to the 24V DC input terminals on the rear panel.
- 24 V DC Emergency alarm contacts terminal. If the fixed power supply fails, a mobile power supply can be connected to the 24V DC terminals to continue the power supply.

#### **CONNECTING WITH BT**

Before transmission between your BT device and the unit is possible, both devices must be coupled. This process is called "Pairing". The unit is served as a receiver, to receive the music stream to be played on the unit. If you have already coupled to a BT device before, this connection will be restored automatically when both devices are in range and BT operation has been selected on the unit. "Pairing" does not have to be repeated. This function may need to be activated in your BT device, however.

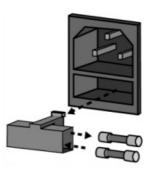
- Press [Mode] to enter BT mode.
- Turn on BT streaming on your device. The device will scan for pairable BT devices in the reception range.
- Select "PDC Amplifier" from the list with found devices.
- Start playback on your BT device. Playback now takes place emitting sound from the unit.

#### **AUX IN**

- You can listen to the music stored in other audio device or smart phone via the unit, through the connection to
  the 3.5 mm aux-in jack on the front panel. Use a cable with 3.5 mm pins at both ends, one end connected to the
  aux-in jack on the unit, the other end connected to the earphone jack on the audio device (or line out socket if
  available).
- Play music on the connected device, the sound will be emitted from the unit.

#### REPLACING THE FUSE

- If the fuse is defective, replace the fuse with a fuse of the same type and value. Before replacing the fuse, unplug mains lead. Procedure:
  - Step 1: Open the fuse holder on the rear panel with a fitting screwdriver.
  - Step 2: Remove the old fuse from the fuse holder.
  - Step 3: Install the new fuse in the fuse holder.
  - Step 4: Replace the fuse holder in the housing.



## **FAQS**

Q: Can I repair the unit myself if an issue arises?

A: No, repairing the unit yourself can invalidate the warranty. Always seek assistance from a qualified technician.

Q: What should I do if I encounter a malfunction?

A: Contact a specialist for advice and repairs. Do not attempt to fix the issue yourself.

- Q: How should I clean the unit?
- A: Avoid using cleaning sprays on switches. Seek advice from a specialist for proper cleaning methods.
- Q: Is continuous use recommended for this product?
- A: No, the unit is not suitable for continuous use. Follow the usage guidelines provided in the manual.

# **Documents / Resources**



<u>Power Dynamics PDC90 Media Player Amplifier</u> [pdf] Instruction Manual 172.800, PDC90 Media Player Amplifier, PDC90, Media Player Amplifier, Player Amplifier, Amplifier

## References

- Samen zijn we open. Samen staan we sterk. Stichting OPEN
- Samen zijn we open. Samen staan we sterk. Stichting OPEN
- Sound & Light distributor Tronios.com
- Wecycle Wecycle
- Mecycle Wecycle
- User Manual

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