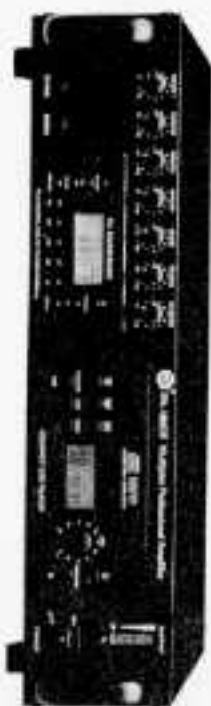




MULTIPLEX PROFESSIONAL AMPLIFIER

PA-180DT



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SAFETY RELATED SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.



The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that documentation for safety reasons.

Protective grounding terminal.

Alternating current voltage.

Hazardous live terminal.

ON: Devices the apparatus turns on.

OFF: Devices the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the user.

Disposing of this product should not be placed in municipal waste and should be separate collector.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.

WARNING

• Power Supply

Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

• External Connection

The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.

• Do not Remove any Cover

There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected.

The cover should be removed by the qualified personnel only.
No user serviceable parts inside.

• Fuse

To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a different fuse or short circuit the fuse holder.

Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

• Protective Grounding

Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.

Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

• Operating Conditions

This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Do not use this apparatus near water.
Please in accordance with the manufacturer's

IMPORTANT!

Please read this manual carefully before operating this unit for the first time.

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Instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings. No naked flame sources, such as lighted candles, should be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments/accessories specified by the manufacturer.

• Power Cord and Plug

Do not defeat the safety purpose of the polarized or grounding type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

• Cleaning

When the apparatus needs a cleaning, you can blow off dust from the apparatus with a blower or clean with rag etc.

Don't use solvents such as benzol, alcohol, or other fluids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

• Servicing

Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

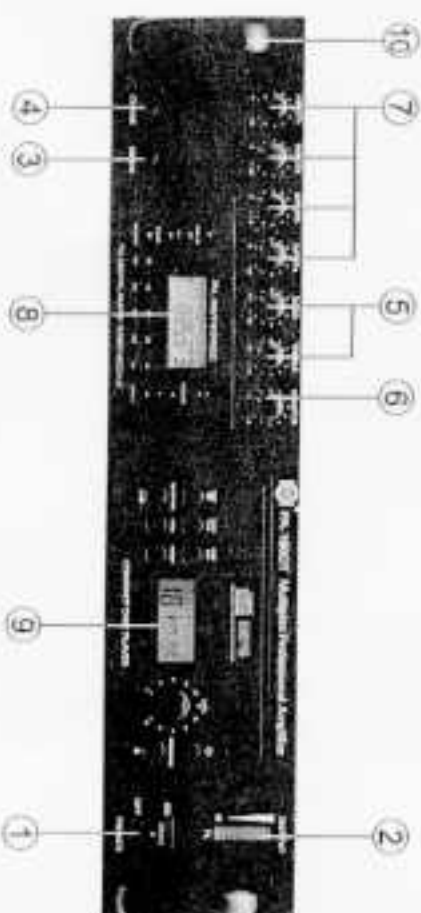
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1. FEATURES

- Three stereo microphone inputs
- Two AUX inputs
- One record output, a group of pre-output and amplifier input jack. Built-in SIREN and TEL PAGING are the first priority. INPUT1 and CHIME is the second priority.
- BASS and TREBLE are controlled separately
- Each channel has the input level control
- LED indication for the output level
- Built-in CD, MP3 and AM/FM tuner module
- The input socket is equipped with the function of line/microphone, phase, high pass filter 120Hz, 48V phantom
- Output level indication
- BASS and TREBLE output control
- Multi-purpose protection—power-on-delay, over heat, over voltage, over load, multi-output terminal—4Ω · 8Ω · 16Ω · 75Ω · 100V

2. THE FRONT PANEL



① POWER SWITCH

It switches on/off the main power.

② LED INDICATION

Output level indication and power indication for the proper operation to keep the corresponding volume

③ SIREN SWITCH

Press it, then the siren is switched on. Release it, then the siren is switched off.

④ CHIME

Turn off the priority switch, then press the chime switch. It outputs chime music.

⑤ BASS & TREBLE KNOB

Bass & treble knob sets the EQ level of amplifier. Turn the knob clockwise, then the gain of Hi/LOW frequency will be increased. Turn the knob counterclockwise, then the gain of Hi/LOW frequency will be decreased.

⑥ MASTER VOLUME CONTROL

It sets the signal of rear input.

⑦ INPUT LEVEL CONTROL

It adjusts the input level of each channel.

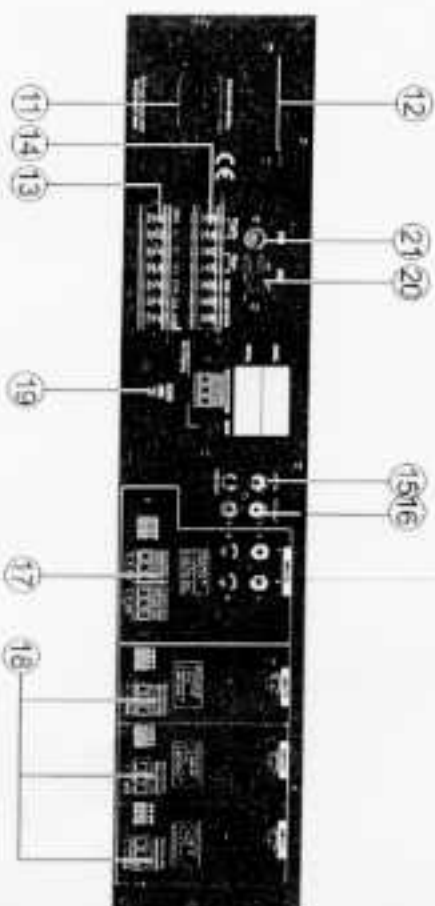
⑧ AM/FM RADIL

⑨ CD/MP3 PLAYER

⑩ HANDLE

It is for the convenience of mounting and transporting.

3. THE REAR PANEL



⑪ AC INPUT

It connects the unit with the AC power, and also it has a built-in AC fuse.
Note: check if it is the right voltage for the unit before connecting the unit with AC power.

⑫ VOLTAGE TRANSFORMING SWITCH

It switches AC voltage 115V/230V.

⑬ SPEAKER OUTPUT TERMINAL

It connects the corresponding speaker.

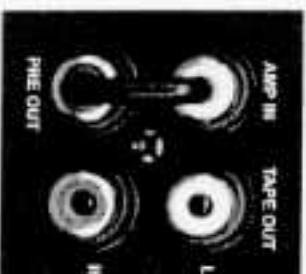


15 CONTROLLING TERMINAL BLOCK

It connects the long distance control priority switch, ston switch and the call signal wire.

16 AMP IN/PRE OUT

To connect the external processor units



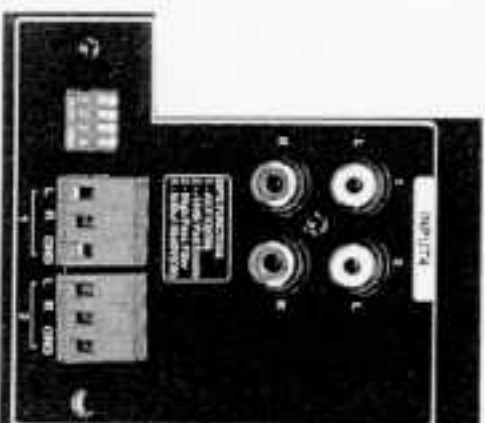
18 TAPE OUT

Stereo mode, for pre-amp signal recording

17 INPUT4

It makes the wire connection more easily. This unit provides the RCA and Euroblock connectors for line signal input also, select the proper function of 4 pin dip SW from the following according to the aux input signal.

- aux1/aux 2 : for different aux signal select.
- 100db pad enable : to avoid the input signal clipping if it is too stronger, and provides more headroom for the aux input.
- high pass filter : to avoid the hum noise.
- 10dbw/0dbu : sensitivity switch, for input level matching.



18 INPUT1/2/3

To make the microphone input wire connector more easily by the final user, this unit provides the Combo (TRS-XLR) AND Euroblock connectors for Mic input. Also, by the 4 pin dip SW, following features may be inserted into the mic signal path.

- Line/Mic sensitivity control Line/Mic that means the mic input accepts also the line level signal, such as the mic signal after the pre-amp, or just from the CD instrument.
- Phase reverse, for easy wire connection and correction esp. under unbalanced connection.
- High pass filter, to avoid the hum noise or low frequency buzz noise from the mic.
- 4 - 48V phantom, power supply to drive the condensermicrophone



19 GROUNDING SCREW

If there is no grounding on the power socket, the GROUNDING SCREW can be connected to avoid electrical shock. Do not connect it by yourself unless you are professional or qualified person.

20 LOOP ANTENNA

It is for receiving AM frequency.

21 FM antenna

It is for receiving FM frequency.

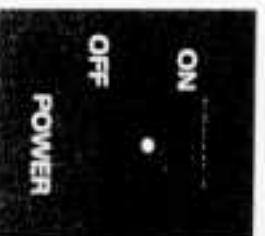
NOTE:

- Before powering on this unit, please make sure that the power voltage is the right one.
- Tighten the output terminal screw.
- Do not block any ventilating hole.
- Leave the rear panel or the side of the unit away from the wall one meter.

4. OPERATION

4.1 POWER SWITCH

Set the switch on the position ON, then the unit is powered on and the power LED lights up. Set the switch on the position OFF, then the unit is powered off and the power LED lights off.



4.2 TIMBRE CONTROL SETTING

The independent timbre control can boost or attenuate BASS or TREBLE. Turn the knob clockwise, then the timbre level increases +10dB. Turn the knob counterclockwise, then the timbre level decreases -10dB.



4.3 OUTPUT LEVEL METER

This meter indicates the output level. When the red LED lights up, the output signal is distorted. In this situation, reduce down the volume.



4.4 CD/MP3 PLAYER

Function keys of CD

- The power switch turns on/off CD. Before pressing this key, please turn off the volume key.
- OPEN/CLOSE: Press OPEN/CLOSE key, the CD window opens. Press the key again, the CD window closes.

- PLAY/PAUSE: PLAY/PAUSE: CD player startup when press the key. Press it again, CD will pause.
- LEVEL: VR controls the volume and the volume gain for CD.
- STOP: Press the stop key, then CD stops operation.
- B.SKIP/REW: Press the B.SKIP/REW key, then the CD reverses.
- F.SKIP/FF: Press F.SKIP/FF key, then CD skips to the next song.
- REPEAT: Press the key, CD will repeat the same song. Press it again, CD will repeat all the songs. Press it once more, CD is in normal operation.
- PROG: PROG: Press the key, then CD can be set as requirements.



Note: before CD is powered on, please make sure all the VRcontrols are in the position MIN.

4.5 PLL AM/FM RADIO

a. POWER SWITCH

Keep pressing the key for two seconds, then LCD displays and radio is ready for operation. Press it again, the radio is powered off.

b. VOLUME control

Press the UP key, volume increases. Press the DOWN key, volume decreases.

c. LCD

LCD displays the received frequency and saved code. If LCD does not display, radio does not work.

d. AM/FM key

Use this key to select the desired band and to switch AM/FM.



5. TECHNICAL SPECIFICATION

MODEL	PA-180 SERIES
RATED OUTPUT POWER	80W
POWER INPUT	AC: 110-120V 50/60Hz AC: 220-240V 50/60Hz
POWER CONSUMPTION	200W RMS
FREQUENCY RESPONSE	50Hz~17kHz (+3dB)
INPUT IMPEDANCE/SENSITIVITY	AUX: 10K Ω (UNBAL.)~20dB MIC: 5K Ω (BAL.)~55dB LINE: 5K Ω (BAL.)~55dB
TONE CONTROL	BASS: ± 10 dB(100Hz) TREBLE: ± 10 dB(10kHz)
DISTORTION (THD)	<0.5%
S/N RATIO	AUX: ≥ 75 dB MIC: ≥ 65 dB LINE: ≥ 65 dB
CONTROLLING KEY	INPUT1 LEVEL CONTROL INPUT2 LEVEL CONTROL INPUT3 LEVEL CONTROL INPUT4 LEVEL CONTROL CD LEVEL CONTROL TIMBRE CONTROL (BASS TREBLE) MASTER CONTROL SIREN SWITCH CHIME SWITCH AC SWITCH
OUTPUT IMPEDANCE	COM: 4 Ω , 8 Ω , 16 Ω
LINE OUTPUT	COM: 70V, 100V
SIREN FUNCTION	YES
VU-METER (LED)	YES
TELEPHONE PAGING/SELECT FUNCTION	YES
INPUT1 PRIORITY	YES
2-TONE CHIME	YES
TUNER	AM/FM
DIGITAL TUNER MODULE	MP3/CD
WEIGHT	10.8kg
DIMENSION	483mm $\times$ 350mm $\times$ 85mm
COLOR	BLACK

Note: We reserve the right to modify the specification, design and appearance without additional notification.

e. UP/DOWN key

Use this key to select channel. Keep pressing the DOWN key for 1.5 seconds, AM frequency decreases 9 KHz automatically and FM frequency decreases 0.1 MHz automatically. It will not stop until it searches one channel. During the process of automatic search, press the DOWN key and it stops selecting channel. Similarly, press the UP key, AM frequency increases 9 KHz and FM frequency increases 0.1 MHz. It will not stop until it searches one channel. During the process of automatic search, press the UP key and it stops selecting channel.

f. MEMORY KEY

Press the MEMORY key. Then press the PRESET key from M1 to M5. LCD displays frequency and saving code. If no power supply, it can keep the saved information for one week.

g. PRESET KEY (M1-M5)

AM/FM each has 5 preset channels. Each one preset keys (M1-M5) corresponds to one channel. Press the PRESET key, LCD displays the frequency and code of the channel.

4.6 INPUT1, INPUT2, INPUT3, INPUT4, CD, RADIO, TEL. PAGING

has the independent input volume level control. Turn the volume clockwise, then the output increases. Turn the volume counter clockwise, then the output decreases.

4.7 PRIORITY CALL

The amplifier has priority input circuit for inputting special or urgent signal from INPUT1.

4.8 SIREN

Press the key, then the siren is turned on. Press it again, then the siren is turned off.



Note: when the SIREN outputs signals, it can not input any other signals from INPUT1.

4.9 CHIME

Turn off the priority switch on the rear panel first. Press the key CHIME, then the chime is turned on. Press it again, then the chime is turned off. It also has the function of input priority.