

Trends
Innovative HiFi Audio

**Trends TS-10/TS-10R
Hi-Fi System
Version 1.0
USER GUIDE**



CE FC RoHS

Trends
Innovative HiFi Audio

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Table of Content

TABLE OF CONTENT	3
1. SAFETY INSTRUCTIONS	4
2. INTRODUCTION	4
3. PACKING LIST	4
4. FEATURES	5
4.1 TRENDS TA-10.2 SE MINI CLASS-T STEREO AMPLIFIER	5
4.2 TRENDS SA-10/SA-10R SPEAKERS	5
5. OVERVIEW	6
5.1 TRENDS TA-10.2 SE MINI CLASS-T STEREO AMPLIFIER	6
5.2 TRENDS SA-10/SA-10R SPEAKERS	7
6. TECHNICAL NOTES	8
(FOR PROFESSIONAL USER ONLY)	8
6.1 OFFSET THE DC BIAS VOLTAGE OF THE SPEAKER TERMINALS	8
6.2 CONFIGURE AS POWER AMPLIFIER (BY-PASS THE VOLUME CONTROL).....	8
7. SPECIFICATION	9
7.1 SPECIFICATION OF THE AMPLIFIER UNIT	9
7.2 SPECIFICATION OF AC ADAPTOR	9
7.3 SPECIFICATION OF THE SPEAKERS UNIT	9
8. TROUBLESHOOTING	10
9. ACCESSORIES	10
10. REGULATORY COMPLIANCE	11
11. CONTACT US	11
12. COMPARISON	12
12.1 TRENDS HI-FI SYSTEMS	12
12.2 TRENDS DESKTOP HI-FI SYSTEMS	12

1. Safety Instructions

Please take note the following instructions before installing your Trends TS-10/TS-10R Hi-Fi System, they will enable you to get the best performance and prolong the life of the product.

- This unit must not be exposed to dripping or splashing water or other liquids. No objects filled with liquid, such as vases, shall be placed on the unit. In the event, switch off immediately, disconnect from the main supply and contact your dealer or us for advice.
- Do not route the power cable so that it can be walked upon or damaged by other items near it.
- Electronic audio components have a running in period of around a week (if used several hours per day). This will allow the new components to settle down; the sonic properties will improve over this time
- If you do not intend to use this unit for a long period of time, unplug it from main socket.
- To clean the unit, wipe its case with a moist, lint-free cloth. Do not use any cleaning fluids containing alcohol, ammonia or abrasives. Do not spray an aerosol at or near Trends TS-10/TS-10R Hi-Fi System.
- These units are not user serviceable, never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem. A serious electric shock could result if this precautionary measure is ignored. In the event of a problem or failure, please contact your dealer or us.

2. Introduction

Thank you for purchasing Trends TS-10/TS-10R Hi-Fi System. This package provides a set of amplifier unit and loudspeakers. The amplifier unit, Trends TA-10.2 SE, applies the latest proprietary T-amp technique enabling it to provide audio quality for audiophile with high power efficiency (up to 90% lesser) and low heat generation. Despite of the hand-held size, its output is equivalent to gigantic high-end products, while it costs only 1/5 to 1/10 of the latter. With the provided Trends SA-10/SA-10R Speakers, Trends TS-10/TS-10R Hi-Fi System is absolutely the best choice of audiophiles longing for quality, cozy and simplicity.

3. Packing List

Model	Trends TS-10	Trends TS-10R
Amplifier Unit	Trends TA-10.2 SE	Trends TA-10.2 SE
Speakers Unit	Trends SA-10	Trends SA-10R

4. Features

4.1 Trends TA-10.2 SE Mini Class-T Stereo Amplifier

- applied the proprietary T-amp technology for audiophile quality sound, high power efficiency (90%) and less heat generation.
- provide up to 2x15W output for area 200-300 ft² (20-30m²).
- an AC adaptor of low ripple and noise is bundled for continuous power supply (without changing batteries).
- minimized mutual interference by separation between amplifier & AC adaptor. Flexibility of applying other power sources, e.g. lead-acid battery, is reserved.
- applied the audiophile-grade Trends MKP capacitors as audio input coupling capacitor which guarantee the best original audio signal feed into the amplifier.
- applied the latest Rubycon MCZ series tank capacitors, the best companion of Trends Tripath Class-T amplification, as the power filtering capacitor.
- applied ALPS volume knob.
- option to work as a pure power amp by simply reset jumpers to by-pass the volume controlling circuit.
- standard gold-plated audio and speaker sockets used to be compatible with most audiophile quality cables.
- built-in over-current protection.
- built-in over-temperature protection.
- applied 2-sided high quality PCB.
- DC bias is adjustable up to $\pm 5\text{mV}$ (pre-set before shipping), allowing to suppress the "pop" sound when power on/off and also increase the sound purity.
- air-core inductor used (instead of magnetic-core) for better sound.
- the stylish & specially-plated aluminium case provides not only good-looking, and also provides outstanding shielding capability.

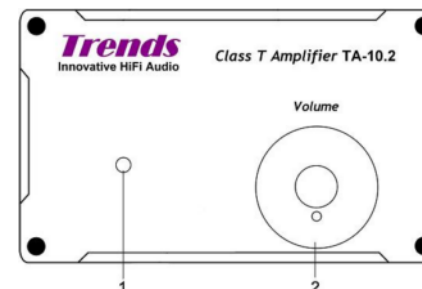
4.2 Trends SA-10/SA-10R Speakers

- 1" polymer dome tweeter with neodymium magnet and lightweight for low mass and clear, detailed highs.
- tweeter is aligned left and right respectively for better 3-dimensional effect. (Trends SA-10R only)
- Double Magnet structure for shielding and optimized field strength, lowering distortion from vibration.
- applied the proprietary Trends core inductor for better sound.
- low loss rubber driver surrounds for a lifetime of reliable high performance.
- sockets is plated with 24K gold making better audio performance.
- compact design, easy setup for Hi-Fi room, living room, sleeping room or even right beside your laptop computer.

5. Overview

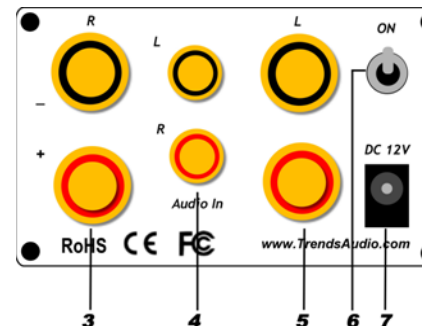
5.1 Trends TA-10.2 SE Mini Class-T Stereo Amplifier

Front View



1. Power indicator
2. Volume controller - turn anti-clockwise to minimize the volume level and vice versa.

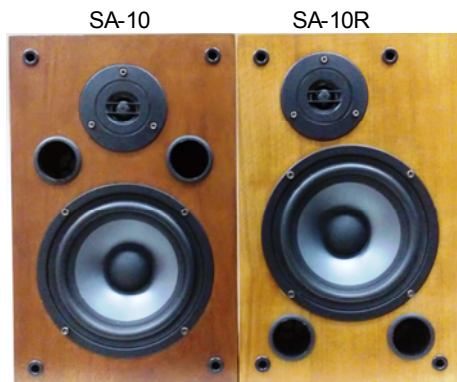
Back View



3. RIGHT Speaker Output – the negative (-ve) and positive (+ve) speaker terminals of the RIGHT channel.
4. Audio Input – the audio signal input (LEFT/RIGHT) connects from audio source (e.g. CD player) to the amplifier by the RCA audio cable.
5. LEFT Speaker Output – the negative (-ve) and positive (+ve) speaker terminals of the LEFT channel.
6. Power ON/OFF switch – pull up to power on the and pull down to power off.
7. Power Supply Socket – plug the bundled AC Adaptor to this socket to supply power to this amplifier.

5.2 Trends SA-10/SA-10R Speakers

Front View



Back View



1. Black terminal (left sided): the negative (-ve) input
2. Red terminal (right sided): the positive (+ve) input

6. Technical Notes (For Professional User Only)

6.1 Offset the DC bias voltage of the speaker terminals

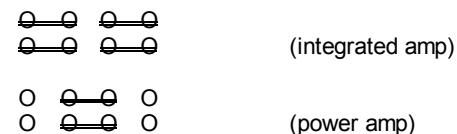
There are two blue adjustable potentiometers (Rt) for offsetting the DC bias voltage between the positive (+ve) and negative (-ve) terminals of each channel. Offsetting this DC bias voltage can enhance the purity of the sound and minimize the “pop” sound when power on and off. The DC bias has been pre-set in factory. But after run-in for a period, it would be slightly changed that the fine-tuning is needed.

Before you tune these, you need a screwdriver (take off the case), a small screwdriver (turn the screw of the potentiometer) and a (digital) multi-meter to detect the DC bias voltage.

1. Use screwdriver to take out the two top level screws in the front panel & another two screws in the back panel. Then, open the upper case.
2. Power ON the amplifier.
3. Use the multi-meter to detect the DC voltage (200mV) between +ve & -ve terminals of the RIGHT channel.
4. Turn the screw on the top of the LEFT (near the front panel) potentiometer by a small screwdriver clockwise or anticlockwise until the voltage as close as to $\pm 0mV$.
5. Then, repeat step 3 and 4 for the LEFT channel by turning the screw on the top of the RIGHT (near the back panel) potentiometer.
6. Power OFF the amplifier.
7. Cover back the upper case and tighten the screws.

6.2 Configure as power amplifier (by-pass the volume control)

You can simply configure the amplifier as an integrated amp (with volume control function) or as a pure power amp (no volume control function) by resetting the jumpers in J2 as follows:



7. Specification

7.1 Specification of the Amplifier Unit

T-Amp IC	Tripath TA2024
Power Output	2x15W @4ohm 2x10W @8ohm
Sound-to-Noise Ratio (SNR)	98dB
Dynamic Range	98dB
IHF IM Distortion	0.10% @ 1W, 4ohm
THD + Noise	Audiophile Quality 0.03% @ 9W 4ohm 0.1% @ 11W 4ohm 0.1% @ 6W 8ohm High Power 10% @ 15W 4ohm 10% @ 10W 8ohm
Power Efficiency	81% @ 15W 4ohm 90% @ 10W 8ohm
Input	Audio IN RCA (Left/Right) x 1 Power Socket (5.5mm/2.1mm) x 1
Output	Speaker OUT (Left) x 1 pair (+/-) Speaker OUT (Right) x 1 pair (+/-)
Other Knob	Power ON/OFF switch x 1 Power Indicator (Blue LED) x1 Volume Knob x 1
Power Supply	DC 12V-13.2V (max.)
Dimension (W x H x D)	76mm x 46mm x 114mm [case] / 150mm [w/ sockets and knob]
Weight	500g

7.2 Specification of AC Adaptor

AC Input: Universal AC	100V-240V/50-60Hz
DC Output	DC 12V 4A (48W)
Ripple and Noise	<= 50mV
Over-load Protection	105%-150%
Over-voltage Protection	115%-150%
Dimension (D x W x H)	117mm x 58mm x 38mm
Weight	400g

7.3 Specification of the Speakers Unit

Model	Trends SA-10	Trends SA-10R
Impedance	8Ω	
Sensitivity	88db	
Frequency Response	65Hz-22KHz	
Power Handling	15 - 70 W	
Tweeter	Single 1" aluminum dome and neodymium motor w/ heat sink. Central aligned.	Single 1" aluminum dome and neodymium motor w/ heat sink. Aligned left and right respectively.
Woofers	Single 5.25" Multi-fiber coated pulped cone	
Weight (Pair)	6.5kg	
Dimension (D × W × H)	125mm x 195mm x 300mm	

8. Troubleshooting

If your machine is out of order, it may not be very serious. Before you call your local distributor or us to repair, you are suggested to check the following:

Symptoms	Possible Reasons	Handling Methods
cannot power ON indicator not bright	power cords not properly connected	properly connect the power cords
	power switch is OFF	switch ON the power
no sound at all	the volume level is too low	turn volume level higher
	the audio cable not properly connected	properly connect the audio cable
	the audio source (e.g. CD player) not started playing	start playing the audio source
	the audio source is mute or connected with a headphone (some player may auto-mute the audio output when the headphone is connected)	Disable the mute or unplug the headphone connected, if any.
volume level cannot be adjust by turning the volume knob	the speaker cables not properly connected	properly connect the speaker cables
	the amplifier configured as pure power amplifier by setting the jumpers in J2	reset the jumpers in J2 back to integrated amplifier

9. Accessories

- AC Adaptor x1
- 3 pins power cord x1 (IEC female plug and male plug for your country standards)
- User Guide x1
- Warranty x1

10. Regulatory Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

11. Contact Us

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12. Comparison

12.1 Trends Hi-Fi Systems

Trends	BA-10 SE	BA-10 GE	Comb 1 SE	Comb 1 GE	iCombo SE	iCombo GE
Model	TAP+PADSE	TAP+PADGE	TAP+PA SE	TAP+PAGE	TAP+PA SE	TAP+PAGE
TA-10.2P SE	SE x 2 ✓	SE x 2 ✓	✓	✓	✓	✓
PA-10.1D SE	✓					
PA-10.1D GE		✓				
PA-10 SE			✓		✓	
PA-10 GE				✓		✓
PW-10 PSU			✓	✓	✓	✓
RCA Cable	✓	✓	✓	✓	✓	✓
Line Out Cable					✓	✓

12.2 Trends Desktop Hi-Fi Systems

Trends	Combo 10	Comb 10 SE	Comb 10 GE	Combo 12	Combo 14 SE	Combo 14 GE
Model	UDL+TAP+PA	UDL+TAP+PA SE	UDL+TAP+PAGE	UDL+TA	UDL+PA SE	UDL+PAGE
UD-10.1 Lite	✓	✓	✓	✓	✓	✓
TA-10.2P SE	✓	✓	✓			
TA-10.2 SE				✓		
PA-10	✓					
PA-10 SE		✓			✓	
PA-10 GE			✓			✓
PW-10 PSU	✓	✓	✓	✓	✓	✓
RCA Cable	✓	✓	✓			
3.5mm to RCA Cable	✓	✓	✓	✓	✓	✓