## Tri-Art **AUDIO**



## **TA-2 Turntable**

**User Manual** 

\*Read the user manual before operating.
\* Note the Cautionary Warning for TA-2 Tonearm

# table of contents

Labelled Table / Included in the Box	2
Safety Information	3-4
Design Features & Specs	5-6
Tone Arm Features & Specs	7
Installation & Assembly	8
Set Up & Tuning	9
Usage	9
Care & Maintenance	10
Support & Assistance	10
Warranty Information	11

#### **Cardis Litz Wire**



#### **Cautionary Warnings**

- If the TA-2 Table is equiped with the Tri-Art TA 2 Tone Arm, the Cardis Litz wire is free standing and unencumbered. Great care needs to be taken when removing the packaging in order to keep the wires in place.
- The black transport pin must be removed on the arm before proceeding with any arm positioning.

#### Transport Pin

# safety information

### Before you start...

Warning of a hazard for the user, the unit or possible misuse. Important notice.



Thank you for buying a Tri-Art Audio product. Please read through this manual to understand and operate this product correctly. Please keep this manual in a safe place so that you may refer to it whenever necessary. Please ensure the product you are using is rated for your country's electrical system, or it will not be covered under our warranty.

## Warning: <u></u>

To prevent fire or shock hazard, do not expose this product to rain or moisture.

### **Important Notice:**

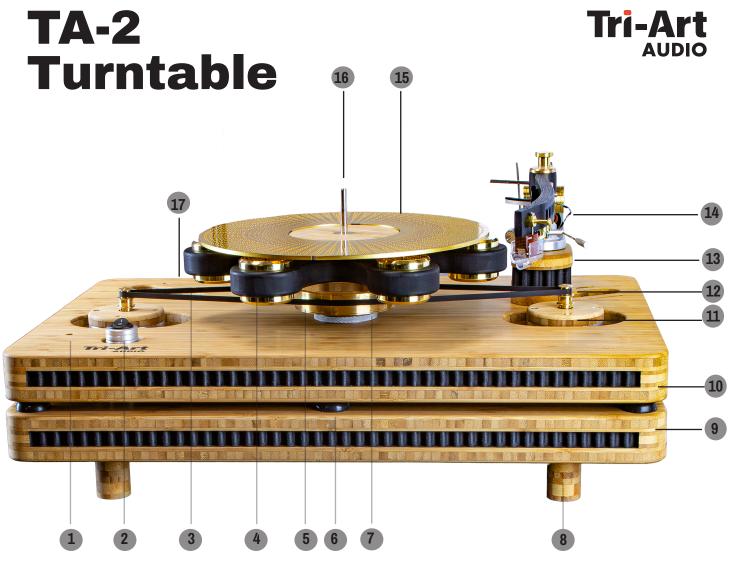
The serial number for this equipment is located on the bottom of this component. Please write this serial number on the enclosed warranty card and follow the instructions to register your product for our limited warranty.

This equipment is designed for consumer use, such as home audio systems. It is not designed to operate in a business environment or a mobile application. Mobile, pro or commercial businesses such as restaurants will not be covered under warranty.



**CAUTION:** To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.





Inclued with TA-2 Turntable:
Record Clamp & Diamond Iso feet

#### **Record Clamp**

A solid 3/4 inch constrained layer bamboo with brass centre on a "lite-weight" 6-layer copper/epoxy gold-plated LP-disc mat that is CNC milled, drilled/perforated to provide superior energy dissipation for the LP vinyl record.





#### **Dimond Isolation feet**

Use to keep equipment vibration free. A solid 3/4 inch constrained layer bamboo diamond shape finished with hemp oil. Tuned with brass ball bearing feet and 1 1/4 inch Sorbothane pad. Place the sorbothane pad into it grooved area and then postion beneath the table support legs. CNC milled, drilled/perforated to provide superior energy dissipation for the LP vinyl record.

- 1- Spindle Sleeve Resting Slot
- 2- Power Switch
- 3- Belt
- 4- Hex Platter
- 5- Sub Platter
- 6- Sorbothane pucks
- 7- Bearing Ring
- 8- Levelling Legs
- 9- Lower Plinth
- 10- Upper Plinth
- 11- 2X AC 24 Pole Snychronous Motor
- 12- Speed pully
- 13- Tone Arm Plinth
- 14- Tonearm
- 15- Mat
- 16- Spindle with Removable Sleeve
- 17- Second Arm Slot

## safety information

## **Safety Instructions**

### **Read Instructions:**

All the safety and operating instructions should be read before operating this equipment.

### **Retain Instructions:**

The safety and operating instructions should be retained for future reference.

## **Heed All Warnings:**

All warnings, set up procedures, and operating instructions should be strictly adhered to. Follow all instructions carefully.

## Water and Moisture: <!

Under no circumstances should this audio component be used near water. It is not to be used in a bathroom, water closet, shower, kitchen, wet basement, pool/spa/sauna area, or outside.

#### Ventilation:

Please ensure that the location of this equipment is such that in no way does it prevent adequate ventilation. Do not enclose this in fabric or enclose in a cabinet where there is no adequate ventilation. In no instance should the product be located where the flow of air is impeded or cannot allow proper ventilation.

#### Heat:

This product should be located well away from all the heat sources, such as but not limited to heaters, forced air heat, radiators, stoves, and fireplaces. Direct sunlight should be avoided due to the possibility of

### **Power Sources:**

The Tri-Art component should be connected to a power supply as listed on the actual component and manual.

## Cleaning:

Your Tri-Art product was soaked in hemp oil and sealed in beeswax. Only use the Tri-Art Beeswax and Hemp Oil in moderate amounts as per the instructions to freshen up the appearance from time to time as needed. Do not use lacquers or aerosol wax products with this product. Do not pour water on the surface at any time.

## **Heavy Objects:**

Do not place heavy objects on this component.



## **TA-2 Turntable**















Black

Natural Distressed Graphite

## **TA-2 Turntable** design features

The Tri-Art B-Series TA2 turntable has the following design features:

- · Bamboo [3-ply constrained bamboo] nature's 'carbon fiber' is used in both the upper and lower plinths, which are decoupled using Sorbothane pucks.
- Two high torque, high 'speed-accuracy 24 pole synchronous A.C. "Hurst" motors, mounted in an independent "vibration-decoupled" motor pod, which are attached to the lower plinth and completely decoupled from the upper plinth.
- The rotating sub-platter uses an ultra-low friction precision machined brass and bronze 'hyper-spherical' Silicon-Nitride Apec 9 carbonized ceramic ball bearing, resting on a precision ground thrust plate, resulting in very low friction and low-speed variance.
- A machined bamboo hexagonal sub-platter with six polished brass disk weights with center brass pins designed to make use of centripetal force and inertia to maintain speed stability.
- A special "lite-weight" 6-layer copper/epoxy gold-plated LP-disc mat that is CNC milled, drilled/perforated to provide superior energy dissipation for the LP vinyl record.
- A removable central spindle sleeve (7.1mm) that decouples the LP-disc platter from the drive system, nullifying the transmission of vibrations from the drive system.
- Options for hand rubbed oil finishes. Umbra, Black, Natural, Distressed, Graphite

## TA-2 Turntable specs & details

#### **CONSTRUCTION DETAILS:**

Decoupled chassis made with precision CNC'd 3 ply constrained (Bamboo) all machined surfaces.

#### **SPEED OPTIONS:**

33 / 45

#### **DRIVE UNIT:**

High torque Dual Hurst 24 pole synchronous motors, each in decoupled motor pods - belt-drive.

#### **BEARING:**

Thrust-plate low friction with hyperspherical Apec 9 carponized ceramic bearing for the main platter.

#### PLATTER:

Upper 6-layer copper epoxy laminated mat that CNC machined and drilled.

Lower Hex Bamboo copper weighted symmetrical platter.

PULLEY: Solid Brass Pulleys for 33 and 45 RPM

SPINDLE .280mm spindle (thickness) with removable 7.1 mm width spindle sleeve standard and for use with optional record clamp.

SPEED ACCURACY: < ± 0.05%

#### POWER CONSUMPTION:

Max. consumption: 4.3 watts

Consumption in operation: 1.5 watts

Off mode: 0.0 watts

TOTAL WEIGHT: Approx. 19kg

SUPPORT: Leveling Legs with Sorbothane Iso Feet

DIMENSIONS PLINTH (W/D/H):

[INCHES] Approx. 24 × 16 × 5 inches

[METRIC] Approx. 609.60 ×406.4 × 127 mm

#### **TA-2**

## Tone Arm design features

The design combines natural materials with precision engineering to optimize sound quality and reduce unwanted vibrations during playback.

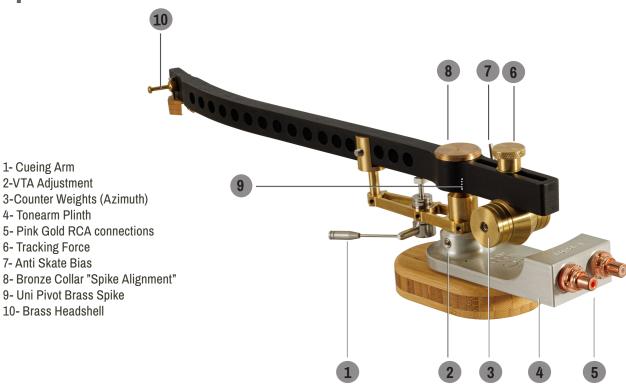
The B Series Tonearm is available in either 12-inch or 9-inch lengths.

#### Each tonearm features the same 'family' characteristics

- Made from CNC machined Bamboo. (nature's carbon fiber)
- Uses an ultra-low friction uni-pivot brass and bronze bearing.
- •The uni-pivot is damping via an inverted grease-cup bearing system.
- Each arm is optimized via mass dampening for MM, MI, and MC cartridges.
- Cardas OFC/OCC 34AWG pure copper tonearm wire is designed to improve the transmission of the minute cartridge voltages to your phono preamp.
- High-grade Cardas, plated OFC/OCC RCA output plugs that allow a low-impedance connection to the phono stage.



## Tonearm specs & details



### **TA-2**

## Tonearm specs & details

#### 9" ARM

PARAMETER	APPROXIMATE VALUE
Effective Length	229 mm
Spindle-to-Pivot Distar	nce ~211.7 mm
Overhang	~17.3 mm
Offset Angle	~22.0°

#### 12" Arm

Effective Length	305 mm
Spindle-to-Pivot Distance	~290 mm
Overhang	~15 mm
Offset Angle	~18.5°







Black Natural Distressed Graphite Options for hand rubbed oil finishes

MATERIAL: Three Ply Bamboo Laminate 19mm Thick

**SETTINGS:** VTA & Azimuth Adjustments

BEARING: Brass with Bronze Collar Spike and Lithium, High

Viscosity Grease Bearing

ARM WIRE: Cardas Wire 33 AWG Uninterrupted from Headshell

Clips to Brass, Pink Gold Plated Female RCA

TONEARM MASS: 9" 15g 12" 19g

**RESONANCE FREQUENCIES:** 8 – 12Hz

**HEADSHELL:** Brass

SHIELDING: Inconel Tubing, Mu-METAL and Brass

**ANTI-SKATE:** Anti Skate Bias

WEIGHTS: Brass counter and brass azimuth weights



#### Installation \_\_\_

Turntables are sensitive to external vibrations and should be placed on stable and level surfaces "away" from sound sources. The Tri-Art B-Series TA2 turntable has some advanced vibration control mechanisms, but care should be taken to remove the table from direct exposure to both structure-borne and air-borne vibrations.

Consideration should be given to using a Tri-Art Bamboo shelving unit, as these are optimal for the cancellation of excessive vibrations, and are designed to provide the best possible playback surface.

- Install the turntable on a clean, flat, level, and physically stable surface
- Level the support surface to the maximum degree possible [Try to obtain +/- 0.02 degree levelness]
- Avoid placing the turntable into a cavity or a vertically constrained shelf, as this impedes calibration and operation.
- Do not place the turntable in the direct path of sunlight (avoid oxidation-reduction)
- Do not place the turntable in a high-heat area or a wet area such as a bathroom.

### Assembly \_\_\_

Depending on different circumstances, the Tri-Art Audio B-Series TA2 turntable may be shipped to you "fully assembled", or partially assembled (if buying "direct from factory"). In the case that assembly is necessary, expect the following circumstances:

- The selected Tri-Art tonearm is mounted with a shipping screw locking and securing the tonearm to the tonearm-rest.
- Hex (6) weighted platter sub-assembly removed and packed into a separate box.
- · Gold-plated copper mat separated and packed in a separate box.
- Tonearm rear weight balance assembly with "passthrough locking screw" in a separate box.
- RCA Cables (along with an AC power cord) are packed in a separate box.

## Assembly Steps:

1- Gather and assemble the parts and check that the spindle-bearing platter rotates freely.

Caution should be used when dealing with the platter spindle and the small ceramic bearing, which may adhere to the spindle when removed, and then "fall off" (unnoticed) with handling.

The issue is that the platter will still spin when reassembled without the small 'ceramic' bearing, but the performance will be "sub-par" - a subtle indicator is when the machined brass/copper platter support "hits" the bearing assembly locking screw and rings. Every effort should be made to recover, clean, and reinsert the tiny ceramic bearing (with lubricant) into the bottom of the bearing assembly.

2 - Add the provided lubricant if necessary. Place the Hex sub-platter assembly on the bearing platter, using the shallow (concave) machined area to couple better with the bearing spindle platter.

**3 -** Place the provided rubber belt on the two motor spindles, and align the belt "flat" (no twists) to tangentially contact the larger central spindle sub platter.

NOTE: For 33.33 RPM operation, use the upper (smaller diameter) machined part of the rotating drive pulley.

4 - Place the gold-plated mat with small machined line holes face down such that the platter locks to the upward-facing brass pins in the HEX plater.

Use the spindle sleeve to center both the hex sub-platter and the gold-plated LP-disc platter/mat to be concentric with the bearing spindle.

- **5 -** Add the tonearm counterweight assembly and remove the tonearm locking screw.
- **6** Then mount the selected phono cartridge using the provided "long" mounting screws, and connect the colored wires to the cartridge output pins.



Adjust the counter-weight assembly to obtain a neutral balance with the mounted cartridge.

CAUTION: Maintain the use of the stylus guard on the cartridge when manipulating the tonearm. Adjust the lateral balance weights such that the small bubble level (included) is dead center with the stylus/arm hovering in the horizontal position.

Set the following parameters based on recommended guidance from the cartridge manufacturer and your preferences:

Vertical Tracking Force (VTF)

VTA & SRA

Anti Skate Bias

Overhang (Horizontal Tracking Angle/Arc)
 Azimuth

NOTE: When adjusting azimuth on a uni-pivot tonearm, use the horizontal offset weights to stabilize and correct the uni-pivot. Observe (with a magnifying glass) the landing behavior of your cartridge when lowered into the outer lead-in groove - if tilted (yaw) is apparent as the stylus tip enters the groove, adjust the horizontal balance until the stylus tip appears to enter the groove vertically, with no apparent yaw/tilt.

Tri-Art is working on an alignment gauge that will allow a very accurate setup of the cartridge geometry - please look for this soon. Until this device is available, please use a validated geometry tool, such as the Dr. Feickert analog Universal Alignment Protractor.

### Usage —

Place a clean LP disc that matches the selected rotational speed by first inserting the center "spindle sleeve" into the center spindle and then guiding the LP center hole onto this spindle sleeve.

Place the TA-2 record clamp over the pindle sleeve and turn on the motor to begin rotation [The designer suggests leaving the turntable powered-on (rotating) "all the time [24x7x365]", which comes at a very minimal expenditure of electricity, and suggests that users become accustomed to changing records "on the fly"; The reason being that "power-on/power-off" transitions are 'hard' on synchronous motors.]

#### **Spindle Sleeve:**

While the platter is rotating, grasp the spindle sleeve between thumb and forefinger and twist and lift - with practice, you will be able to leave the center record clamp in a concentric position -- if the record clamp is displaced (non-concentric), reinsert the spindle sleeve and center again -- a small twist and lift motion usually does the trick.

#### **Alternative Method:**

Remove spindle cover after record and clamp are on but before turning on power to the platter.

Using the tonearm cueing lever, place the stylus needle over the record cut you are interested in and lower gently into the grooves -- it is recommended to maintain your preamplifier/integrated amplifier in a muted mode while cueing your disk playback.

Note that the "spindle sleeve" has a resting area - a 7.4mm machined hole in the upper plinth next to the power switch that can also accommodate the record clamp when not in use. When removing it for playback, be sure to return the "spindle sleeve" to its appropriate resting area, as it is a critical component in the playback system.



## Care & Maintenance \_\_\_

Clean the upper plinth and exposed bamboo surfaces with a clean and slightly 'damped/ moistened' [water only] cotton cloth. (or microfiber cloth):

Avoid using any solvents or harsh cleaning formulas. A small amount of bee's wax rubbed into the bamboo will maintain the natural oils and luster for many years to come, but care should be made to remove any excess wax. (Use wax sparingly).

The main platter bearing may need occasional re-lubrification (Please see the previous caution on the small ceramic bearing dropping off]) but only when speed variations are detected. Use a paper towel and approx.70% rubbing alcohol to clean the under-platter sides (where it touches the rubber belt), be sure to dry and polish thoroughly, and also keep the rubber belt clean and oil-free.

Do not use any metal polish on the gold-plated LP disk platter, as it will enter the holes and unbalance the rotational behavior. Clean the LP disk platter with a simple moistened cotton cloth, and dry thoroughly.

NOTE: No dust cover is provided -- a simple large "microfiber" towel, large enough to cover the entire table, is more than sufficient to prevent dust from settling onto the playback surfaces. Care should be taken to "always" use a protective stylus (needle) covering when using this method (to prevent dust accumulation) and prevent accidental stylus "trauma".

## Support & Assistance —

Please reach out to your dealer first; if warranted, send questions and issues to the following email: support@tri-art.ca or via www.triartaudio.com/contact, or call us at +1 613-541-0299

Other sources of information: "Tri-Art Insiders" users forum on Facebook and Tri-Art Audio Facebook page.

## **Important Notice:**

The serial number for this equipment is located on the bottom of this component. Please write this serial number on the enclosed warranty card and follow the instructions to register your product.

This equipment is designed for consumer use, such as home audio systems. It is not designed to operate in a business environment or a mobile application. Mobile, pro or commercial businesses such as restaurants will not be covered under warranty.

## Thank you for your purchase!

Thank you for the purchase of the Tri-Art Audio B-Series TA-2 turntable. We believe that you will enjoy the advanced design features embedded in this turntable system and appreciate its ecological and sustainable component sources. With care and proper usage, this is a turntable that will last for decades and provide a "family heirloom" to pass on to future generations. It is a "one of the kind" music rendering device and will enhance any home stereo's LP playback system. We hope you enjoy this product as much as we do!



# warranty information

#### MANUFACTURER'S WARRANTY:

Tri-Art Audio products are covered by a warranty for one (1) year from the date of purchase, which includes both parts and labour. Warranty activation requires a valid sales receipt from an authorized local dealer.

The warranty protects against defects in materials and workmanship for one year from the original purchase date. The warranty period may be extended up to a total of five (5) years, covering both parts and labour, upon submission of the completed warranty card included in your product packaging.

#### ADDITIONAL WARRANTY COVERAGE ITEMS

- Coverage for manufacturing defects in electronic components, including circuit boards and internal wiring.
- Warranty for replacement of faulty knobs, switches, and connectors due to normal use.
- Protection against premature failure of internal power supplies.
- Coverage for defects in speaker drivers and crossover networks, provided the product is used within specified limits.
- Labour costs associated with warranty repairs, including return shipping to the customer within North America (if applicable).
- Support for firmware or software updates necessary to correct functional defects.
- · Important:

Please ensure the product voltage is for North America and corrected to a 120V power supply. The warranty is valid only for products purchased and used in North America.

• Warranty claims require proof of purchase and, if applicable, the completed warranty card.

#### REMEDY

Tri-Art Audio, and exclusively Tri-Art Audio, shall initiate a repair or a replacement to bring a product that has a manufacturing defect back to proper operation. An estimate of cost to do so will be provided by Tri-Art Audio.

#### **SHIPPING**

Customer/Dealer pays shipping to Tri-Art Audio.|Return Shipping charges shall be paid by Tri-Art Audio on warranty repairs.

For Non-Warranty repairs or upgrades, shipping at cost applies. An estimate for labour and parts charges will be issued and upon acceptance we will complete the desired non warranty charges.

#### WHAT IS NOT COVERED

- Irregularities or imperfections in the bamboo finish.
- Damage incurred during shipping (if the box arrives damaged, contact your shipper; Tri-Art Audio may refuse to accept damaged shipments).
- Return Shipping
- Water damage.
- Damage resulting from unauthorized service or repair.
- Unauthorized upgrades, such as non-approved fuse or valve replacements.
- Electrical damage caused by incorrect voltage, incorrect power supply, power surges, lightning, or storms.
- Damage resulting from overdriving speaker drivers.
- Cosmetic damage, such as scratches, dents, or discoloration not affecting product function.
- Normal wear and tear, including fading or deterioration of exterior finishes.
- · Loss or theft of the product.

For any warranty service, please retain your original sales receipt and warranty card, and contact Tri-Art Audio customer support for assistance.



triartaudio.com



Designed. Fabricated. Assembled. In Canada