

ALL-TRANSISTOR PORTABLE TAPE RECORDER, MODEL TPT 231

Here is a completely portable, all-transistor tape recorder that has all the features of higher priced, standard-size AC tape recorders. So compact and so light that it goes everywhere you go....to parties, friends, vacations and trips. You'll find a new, life long companion in this TPT 231 and fall in love with the convenience and versatility of this up-to-the-minute product.

1. Features

1) Delux Portable Recorder

No other conventional portable unit can match the Model TPT 231 for its outstanding operating and performance specifications.

2) Built-in Microphone.....Compact Design

Microphone is neatly fitted in the body as photo shows.

3) Largest ($5\frac{9}{16}'' \times 3\frac{1}{8}''$) Oval Speaker

Largest speaker of all transistorized tape recorders is used. Because of high impedance speaker, you can enjoy clear, sparkling reproduction.

4) Operates in Any Position

Place it as you like.....vertically, horizontally or aslant.....it perfectly works in any position and while being carried.

5) Finger Tip Push-button Controls

A light touch of the buttons and the recorder functions to your choice...“play”, “record”, “rewind” and “stop”.

6) Operates on Both Dry Batteries and House Current

It runs on six ordinary flashlight batteries—inexpensive and available anywhere. If a Fuji AC Adaptor, which is sold separately, is used, it operates on AC house current.

7) Double Magic Meter for Battery Consuming and Recording Level.

Double magic meter tells at a glance whether recording level is normal or distorted, also batteries need replacement or the voltage is normal during reproduction.

8) O. T. L. (Output Trans Less) System

Because of the trans less system, transistors (output) are directly connected to the speaker, which gives true high fidelity reproduction.

9) Earphone

Private earphone allows you to hear tape playback in complete privacy.

10) Radio Jack

Radio jack is provided for direct clear recording from your radio or phonograph.

11) Fuji's Quality Components

All transistors and circuit components are of dependable Fuji products which assure long, faithful service.



2. Specification

Dimensions :	$9\frac{9}{16}''(W) \times 8\frac{1}{16}''(D) \times 2\frac{1}{16}''(H)$ or 242 mm (W) \times 220 mm (D) \times 65.5 mm (H)
Weight :	6.6 lb. or 3 kg
Power source :	6×1.5 V flashlight battery (UM-2) or AC house current (Please use AC adaptor)
Transistor :	7 transistors
Power consumption :	1.5 W
Output :	300 mW (distortionless)
Speaker :	$5\frac{9}{16}'' \times 3\frac{1}{8}''$ or 140 mm \times 80 mm Oval dynamic speaker, High impedance
Tape speed :	$3\frac{3}{4}$ ips or 9.5 cm/sec. $1\frac{7}{8}$ ips or 4.75 cm/sec.
Recording system :	AC bias system
Erasing system :	Magnetic system
Track :	Double track
Double magic meter :	Two-way level indicator for battery and recording level
Reel :	3"
Recording time :	$3\frac{3}{4}$ ips or 9.5 cm/sec 15 min. (single), 30 min. (double) $1\frac{7}{8}$ ips or 4.75 cm/sec 30 min. (single), 60 min. (double)
Signal to noise ratio :	More than 35 db
Wow and flutter :	Less than 0.7% at $3\frac{3}{4}$ ips (9.5 cm/sec.)
Rewinding time :	Less than 2 min.
Frequency characteristics :	$3\frac{3}{4}$ ips (9.5 cm/sec) 80~10,000 c/s $1\frac{7}{8}$ ips (4.75 cm/sec) 80~5,000 c/s

(By A. Ishikawa, Household Appliance Dep't.)

Outline of Our Products

(I) Power Station

- a) Generators :
Synchronous generators up to 150,000 kVA.
Direct current generators up to 10,000 kW.
Other all kinds of generators.
- b) Water Turbines & Pump Turbines :
Francis type, Pelton type, Kaplan type turbines and pump turbines up to 150,000 kW.
- c) Steam Turbines up to 150,000 kW.
- d) Gas Turbines :
Closed-cycle type up to 50,000 kW.

(II) Nuclear Reactor

Power Reactors, Experimental Reactors, Sub-critical Assemblies.

(III) Transmission & Distribution

- a) Transformers :
Power transformers up to 300 MVA, 480 kV.
Furnace transformers up to 60 MVA, 154 kV.
Measuring transformers up to 287 kV.
Other all kinds of transformers.
- b) Standard Transformers (for general use), Single-phase & Three-phase Distribution Transformers from 3 kVA to 1,000 kVA
- c) Rotary Condensers up to 75,000 kVA.
- d) Static Condensers.
- e) Circuit Breakers :
Expansion circuit breakers up to 287 kV.
Oil circuit breakers up to 154 kV.
- f) Switchboards :
Sheet iron made switchboards for all kinds of service
- g) Switch Equipment :
Disconnecting switches up to 480 kV.
- h) Induction Voltage Regulators up 1,000 kVA.
- i) Lightning Arrester up to 161 kV.

(IV) Rectifier

- a) Mercury-arc Rectifiers :
Single-anode or multi-anode type, air-cooled pump-less up to 6,000 A.
- b) Selenium Rectifiers.
- c) Silicon Rectifiers.
- d) Rotary Converters up to 3,000 kW, 1,500 V.

(V) Motor & Application

- a) Motors :
Three-phase synchronous motors up to 150,000 kW.
Three-phase induction motors up to 10,000 kW.
Three-phase commutator motors up to 300 kW.
Direct current motors up to 10,000 kW.
Other all kinds of motors.
- b) Standard Motors (for general use)
Three-phase squirrel cage motors from 0.4 kW to 75 kW.
Three-phase wound motors from 20 kW to 75 kW.
Single-phase split-phase start induction motors, 100 & 200 W.
Single-phase repulsion start induction motors from 200 to 750 W.
Single-phase condenser start induction motors from 200 to 750 W.
- c) Ventilating Fans for radial & axial type.

- d) Mine Winder set for vertical shaft & inclined shaft
- e) All kinds of Winches for cargo boat use.
- f) Steering Engines for boat use.
- g) Fuji-Voith Schneider Propellers.
- h) Torque Converters.
- i) Steam Converting Valves.

(VI) Control

- a) Regulating Apparatus :
Motor starters, controllers, speed regulators, voltage regulators & other regulating apparatus for all kinds of service.
- b) Circuit Breakers :
Air circuit breakers up to 500 V, 3,000 A.
High speed air circuit breakers up to 1,500 V 6,000 A.
- c) Switch Equipment :
Knife switches, magnetic switches & other all kinds of switch equipment.

(VII) Instrument

- a) Watt-hour Meters :
Single-phase WHM for low tension circuit use.
Three-phase WHM for low & high tension circuit use.
- b) Relays :
All kinds of relays for power & industry use.
- c) Electric Measuring Instruments :
Switchboard meters, portable type meters, precision meters, recording meters, telemetering & telecontrolling equipment.
- d) Industrial Measuring Instruments :
Thermometers, pyrometers, gas analysers, hydrometers, salinometers, PH meters, pressure gauges, flow meters (for water, steam, gas & air), level meters, indicators and recorders.
- e) Automatic Controlling Equipment :
Electro-pneumatic controllers for temperature, pressure, flow, liquid level etc., ratio, controllers for gas & liquid mixing.
Magnetic controllers, electrical indicating controllers with on-off contacts.

(VIII) Radiation Equipment

Linear accelerators, synchrotron, Cockcroft-Walton type DC high voltage generators.

(IX) Household Appliances

- a) Electric Washing Machines & Spin Dryers.
- b) Vacuum Cleaners.
- c) Electric Refrigerators.
- d) Electric Fans.
- e) Air Conditioners.
- f) Transistor Radios.
- g) Tape Recorders.
- h) Television Sets.
- i) Stereo Players.
- j) Electric Juicers.
- k) Toasters, Hot Plates & Irons.
- l) Heating Apparatus :
Electric foot warmers, bed warmers, body warmers, electric stoves etc.
- m) Electric Home Pumps for deep or shallow well.
- n) Dry Batteries.
- o) Flash Lights & Gas Lighters.
- p) Electric Illuminating Apparatus.