

ULTIMATE HIGH FIDELITY STEREO COMPONENT

**NUMAN**

**PD-121**

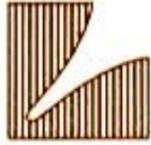
**▶ OWNER'S MANUAL ◀**  
DIRECT-DRIVE TURNTABLE (WITHOUT TONE-ARM)

# CONTENTS

- ASSEMBLY PROCEDURE ..... 1
- FEATURES OF THE PD-131 ..... 2
- CONTROL FUNCTION & CONNECTION ..... 3
- MAINTENANCE ..... 4
- SPECIFICATIONS ..... 5

**WARNING:** TO PREVENT FIRE OR SHOCK HAZARD  
DO NOT EXPOSE THIS APPLIANCE TO  
RAIN OR MOISTURE.

Thank you for your purchasing one of our quality products, the LUXMAN PD-121. With natural care, it will give you many years of outstanding performance and personal delight. Please read this owner's manual carefully before operating the unit. The first section explains how to assemble this turntable. The second section gives detailed descriptions and operating procedures for the electronic and mechanical components of the PD-121. Again, thank you for your selection, and may "good listening" be your daily pleasure.



PD-121

# ASSEMBLY PROCEDURE

To protect the turntable from possible damage in the course of transportation, such heavy components as platter etc. are packed separately from the main chassis. Furthermore, the motor and the transformer are firmly fixed to the chassis by means of clamping screws. Therefore correct assembly in accordance with the drawing is required. Correct reassembly is of prime importance, since both the performance of your turntable and the final tonal quality depend on it. Under no circumstance operate the turntable without removing the clamping screws, since then the turntable will not start to rotate. Be sure to keep them as they may be needed again in the case of reshipment.

## 1. Motor Clamping Screws

The rotor of the motor is firmly clamped by means of six blue colored screws. Remove these screws as well as the fixing metals and the packings by means of a posidrive screw driver. Take care not to remove any of the metal fixtures with black rubber-cap, which prevent the rotor from coming loose. → ①

## 2. Transformer Clamping Screws

The transformer is fixed by two red colored screws from the bottom side of the player. Remove these screws by means of a posidrive screw driver.

## 3. Turntable Platter

The turntable platter and the platter mat are housed at the bottom of the packing-case. After having taken off the mat from the turntable, carefully insert the turntable onto the center shaft of the motor, holding it by fingers through the two holes. Now turn the turntable manually to check if correct set-up has been obtained. Then put the mat on the turntable. → ②

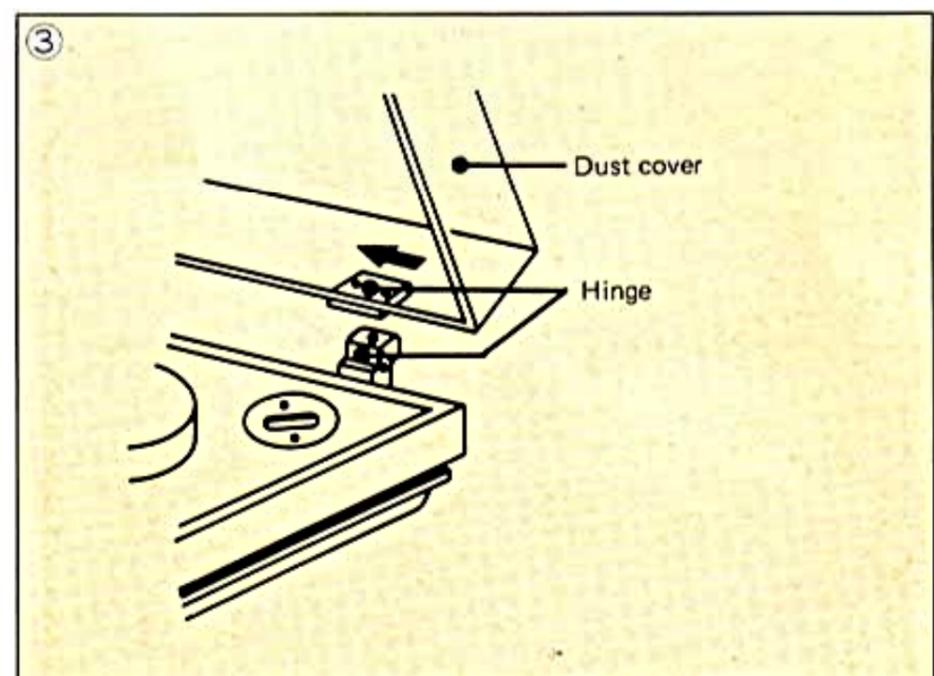
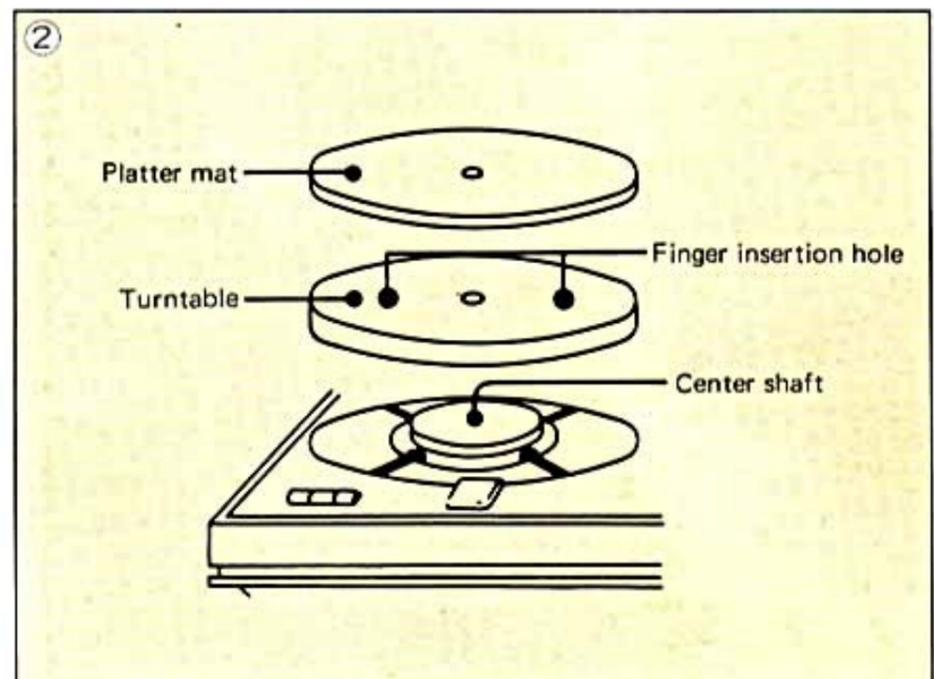
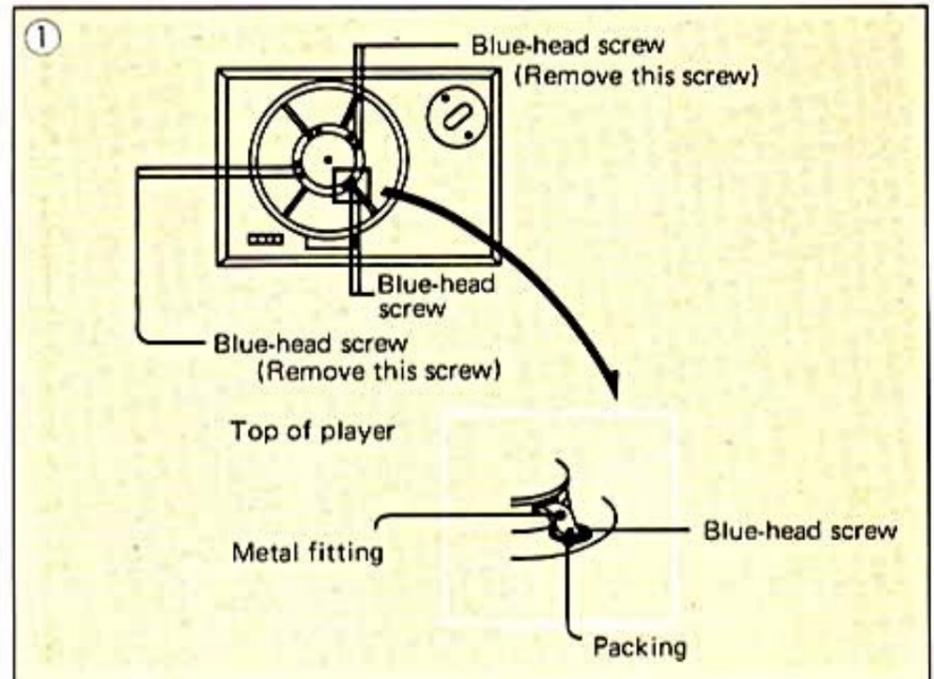
**Caution:** Do this procedure carefully, since the turntable platter is very heavy. Rough handling may cause damage to the motor-shaft or the entire turntable.

## 4. Dust Cover

The dust cover is detachable. Insert the projection on the hinge of the player into that of the dust cover, then slide the dust cover as per the drawing. Hold the dust cover at the hinge and fix it firmly. To remove the cover, slide it in the reverse direction. The dust cover is heavy in weight, since the acrylic resin of 4mm (1/6") thickness is used. Although the strength of hinge section is large enough to support the cover weight, rough opening and closing may cause rattling due to the semi-free-stop structure. Therefore, careful handling is necessary. → ③

## 5. Insulator

The 4 insulators are provided at each bottom corner of the turntable, and the height is adjustable independently. The height is preset at their lowest position at the factory, therefore render independent adjustment to obtain level, if necessary. The counter-clockwise turn (viewed from the bottom side) of this insulator increases the height.





PD-121

# FEATURES OF THE PD121

---

## MOTOR SUSPENSION

The most unique feature of this turntable is the motor suspension structure. The robust chassis of aluminum die-casting integrates the tonearm base. For the upper panel, anodized aluminum of approx. 3mm (1/8") thickness is used, which is, through rubber, fixed to the wood-frame thus providing excellent damping. Gross weight is 14kgs (30 lbs.) for the PD-121 which contributes effectively to prevent howling feedback or floor vibration.

## HEAVY-WEIGHT TURNTABLE PLATTER

The platter is designed not only to obtain necessary inertia but to provide optimum thickness and shape of the ribs, considering the bearing of the motor, resonance or strength of each section. Weight is approx. 2.5kgs (5.5 lbs.) and inertia is 340kgs/cm<sup>2</sup> (4,900 lbs./in<sup>2</sup>) for the PD-121. Of course each turntable is dynamically balanced.

## INSULATOR OF TRIPLE-STRUCTURE

A special and unique insulator has been developed to ensure best possible anti-vibration. Each spring is damped by rubber, and the entire damping mechanism is suspended in silicon-grease. This is an extremely effective insulator and necessary compliance and damping effect are beautifully integrated.

## DIRECT-DRIVE MOTOR

A DC-Servo Motor with electronic commutation is used, which makes it possible to drive the heavy platter. Additional features are high torque and low power consumption. This turntable rotates at the same speed as the motor, therefore the turntable can be driven directly without using a drive belt or idler wheels, thus ensuring excellent stability. Furthermore, even if the turntable is intentionally stopped by hand, this will not overload the motor.

NOTE: This turntable is delivered from the factory without tonearm, and various famous tonearms of your choice can be installed by use of the matching tonearm bases of bayonet-mount system.

## BAYONET MOUNT TONEARM-BASE

The PD-121 is not provided with a tonearm. The elaborate bayonet mount tonearm base is similar in principle to that used in cameras and ensures quick interchangeability of various famous tonearms with easy "one-touch" operation.

## UNIQUE STROBOSCOPE

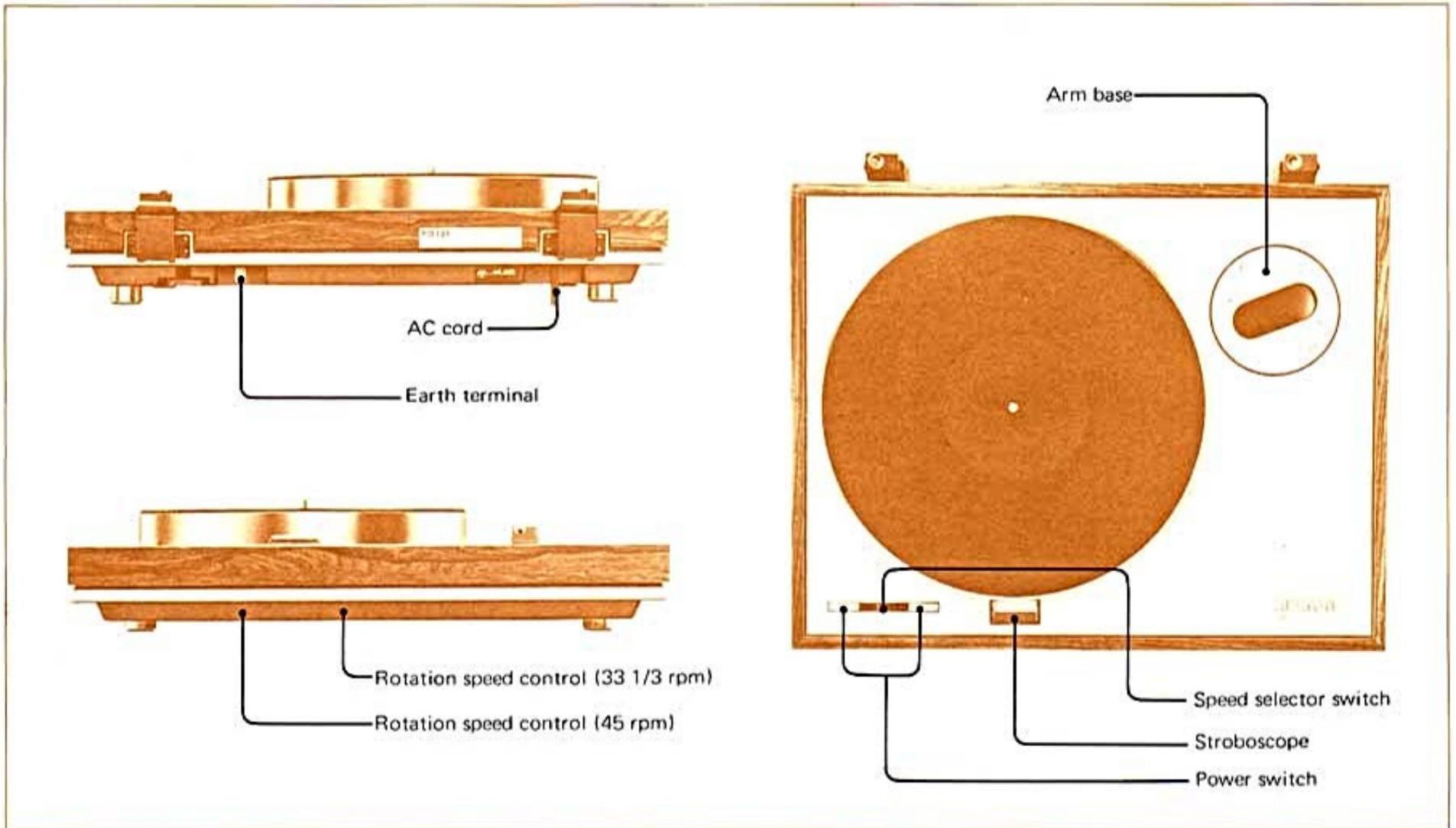
A unique idea is adopted for the stroboscope to ensure an easy and pleasant check of the turntable's rotation. In order to make the stroboscope pattern very clear, a black light tube is fired by very short duration pulses and a special "day-glow" paint has been used for the strobo markings. The line frequency indication can be identified by color: yellow for 60Hz and green for 50Hz.

## CRYSTAL-CLEAR COVER

An approx. 4mm (1/6") thick crystal-clear acrylic plastic cover is provided which completely matches the total design harmony of the turntable.

## PHONO MAT

Various study has been given to the mat on which the disc is placed, and a simulated leather material, also frequently used for cameras, is adopted. It offers elegance as well as a soft feeling. Therefore it will protect your precious discs.



## 1. Tonearm Base

The tonearm base is a bayonet mount type which ensures quick interchangeability. For removal, turn the base in counter-clockwise direction while depressing one of the two buttons on the tonearm base plate until the base stops, then lift it up. Mounting is easily carried out in the reverse order. Set the tonearm base on the mounting plate of the player with the protruded button coming to the front. Then turn the tonearm base in clockwise direction until a "click" sound is heard.

## 2. Speed Selector Switch

When this slide-switch is set at the left "33" position, the turntable rotates at 33-1/3 rpm, while at the right "45" position it rotates at 45 rpm.

## 3. Stroboscope

Rotation is indicated in figures (33 or 45). Further the AC line frequency is easily designated by two colors; yellow for 60Hz and green for 50Hz.

## 4. Power Switch

Power is "ON" when the switch positioned to the right of the Speed Selector Switch(2) is pressed. Power is "OFF" when the switch positioned to the left of the Speed Selector Switch is pressed.

## 5. AC Power Cord

Connect the AC plug at the end of this cord to the AC socket in your listening room or to the extra AC outlet on the rear of your audio amplifier.

## 6. Earth Terminal of the Motor

Connect one end of the earth lead to this terminal, and the other end to the GND terminal of your audio amplifier.

## 7. 8. Speed Adjustment Controls

Accurate speed adjustment is possible by means of these adjustment controls. To adjust 33-1/3 rpm, set the Speed Selector Switch(2) at "33" position, then turn the Speed Adjuster knob (8), monitoring the flow of the stroboscope pattern relevant to the line frequency. To adjust 45 rpm, set the Speed Selector Switch(2) at "45", then turn the knob(7). A clockwise turn of the adjustment increases rotation speed, while the speed decreases with a counter-clockwise turn. When the stroboscope pattern appears to be stationary, correct rotation speed has been obtained. Before making this adjustment, be sure to check the line frequency, i.e., 60 or 50Hz.



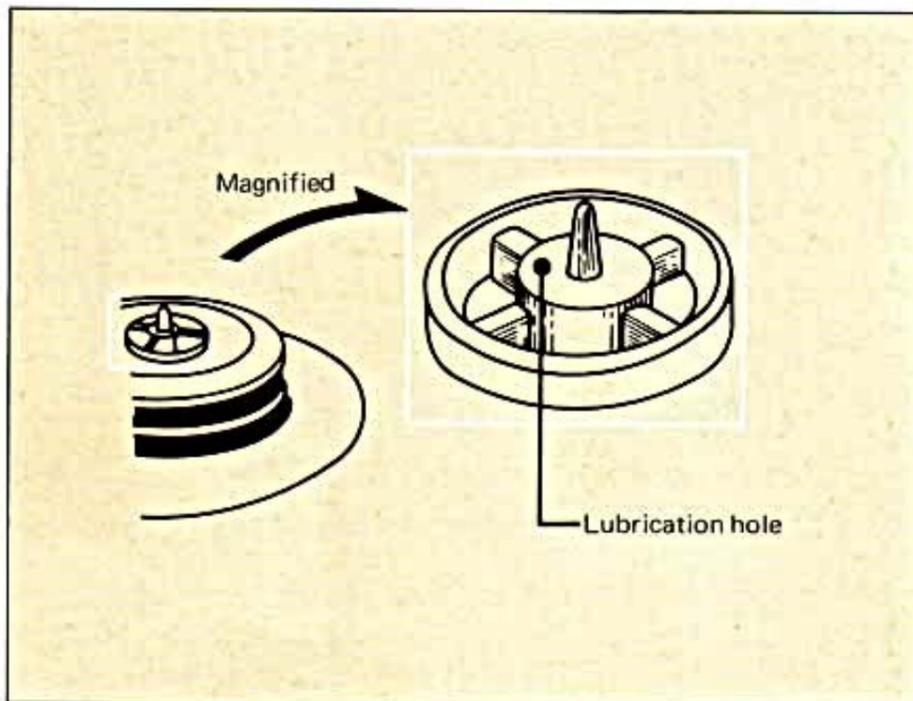
PD-121

# MAINTENANCE

This turntable is of Direct-Driven type, therefore it is free from the conveyer or the slip clutch mechanism such as the drive belt or the idler. And no special maintenance is necessary. However, as this is precision equipment, careful treatment and handling are essential.

## 1. Motor Section

The motor of the PD-121 requires no lubrication under normal use. However, in case this is used for professional application in which operation frequency is extreme, a drop of lubricant (Aderol #465 or equivalent) should be applied through the oil-hole every 5,000 hours.



## 2. Panel, Dust Cover, etc.

A special treatment is applied to the panel and the turntable to keep them clean. And no special care for maintenance is necessary. But when you feel uneasy about smudge or spots, softly wipe them off with the silicon-cloth provided. A diluted synthetic detergent is also effective.

**Caution:** Never use paint thinners or alcohol which will impair the materials.



PD-121

# SPECIFICATIONS

---

## < PHONO MOTOR SECTION >

Driving System:	Direct-Drive System
Motor:	Brushless DC Servo motor
Turntable Platter:	30cm (12") aluminium die-cast 2.4kgs (5.3 lbs.)
Rotation:	33-1/3, 45 rpm (2-speed)
Adjustable Range of Rotation:	± 4% independently for each speed
S/N Ratio:	No less than 70dB
Wow & Flutter:	No more than 0.03% W.R.M.S.

## < ADDITIONAL FEATURES >

Acrylic Resin Cover:	4mm-thick (1/6") detachable with pre set hinge stop
Insulator:	Adjustable height
Mirror System	
Stroboscope	Speed indication by means of black light

## < OTHERS >

Power Requirement:	120V 60Hz for U.S.A. and Canada model 220/240V 50Hz for Europe model
Power Consumption:	6W (during rotation) 20W (at start)
Additional Features:	Acrylic resin cover (4mm-thick, detachable with pre set hinge stop), insulator (adjustable height), Mirror system stroboscope (speed indication by means of black light)
Dimensions:	472(W) x 144(H) (+10, -20) x 372 (D) (+17, hinge) mm 18-5/8" x 5-11/16" (+7/16", -3/4") x 14-11/16" (+11/16")
Weight:	Net 13kgs (29 lbs.) Gross 15kgs (33 lbs.)

Specifications and appearance design subject to possible change without notice.

