

Dokorder®



800X

The highest performing, most thoroughly tested 200 watt AM/FM stereo receiver in the world today.

The Dokorder 800X is the finest AM/FM stereo receiver you can buy, period. It has been developed only after five years of exhaustive research. It has been perfected only after thousands of exacting tests and inspections. The result is a component that affords 200 watts of clean, distortion-free power with audio and design features that exceed the standards of the most discriminating stereo enthusiast.

Many of the features incorporated in the 800X, such as IC and FET circuitry, are those which the consumer has come to expect in advance-line receivers. Others are revolutionary. Together, they blend to give the listener more penetrating sound reproduction from every component connected to the 800X, as well as greater, more versatile control of those sounds.

In performance the 800X is without peer. By utilizing the latest SEPP ITL-OTL circuitry with two tantalum ICs and silicon transistors exclusively, the 800X delivers 200 watts in total music power, a 20 to 50,000Hz power bandwidth with a distortion factor of 0.8%. It also has an exceptionally high 70dB S/N ratio. And an FM sensitivity figure of 1.5µV. The 69 carefully selected transistors and diodes used in the 800X ensure cooler running,

improved performance and maximum dependability.

In design features, it is also unique. Controls used most frequently are readily accessible on the front panel. They include both the graphic type for Balance and Volume, and the push-button type for program selections. Those used for adjusting bass and treble tone qualities, for controlling two stereo speaker systems and for filtering high and low frequencies are located on a convenient compartment-like panel board that folds away when not needed.

Other features include both DIN and pin recording inputs, two AC outlets, a mono output jack for connection to a third speaker system, new type of protector circuit warning lamp and a stereo headphones jack on the front panel for private listening.

In appearance too, the 800X leads all others. Its lustrous metallic gold front panel is highlighted by the new functional black window design, and the entire receiver is enclosed in rich walnut.

The Dokorder 800X took five exacting years to build. Listen. You'll find it was worth the wait.

ONE YEAR FACTORY WARRANTY

Coast-to-Coast Authorized Service Depots in the United States





Output Muting Switch

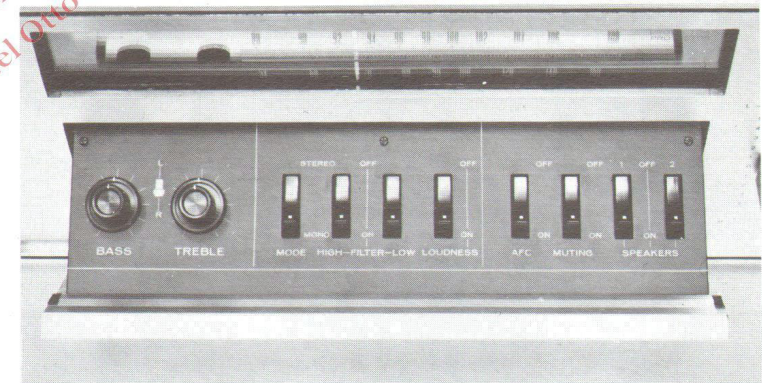
On the right hand side of the 800X, two pushbutton switches have been incorporated. One for Tape Monitoring and the other for Output Muting. The advantage of the latter switch is that once the volume has been properly adjusted, should you wish to reduce volume temporarily due to interruptions such as a telephone call, you can push the Output Muting switch to reduce amplifier gain to approximately one-tenth that of normal. When you resume listening, push this control off and the set will return to normal volume level. There is no need to adjust volume again.

Drum Type Tuning Dial

This type of tuning is more precise and accurate than the normal round dial type of tuning knob. The large, horizontally-positioned dial allows you to pinpoint stations quickly and conveniently.

Other Front Panel Controls

In addition to the controls already mentioned, a pushbutton power switch and headphones jack are conveniently located for optimum control and easy operation.



New Fold-Away Control Console

The 800X's unique compartment-like panel board section, hidden from view when not in use, houses all other front panel controls. This console features tandem Bass and Treble controls, Mode switch, High and Low Frequency Filter switches, Loudness, AFC and Muting switches, and independent On and Off switches for the two sets of stereo speaker systems the 800X is capable of handling.

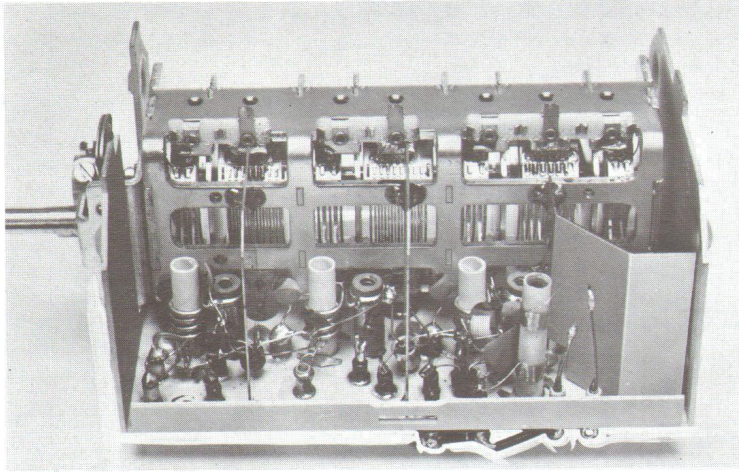
Functional Black Window Styling

The front window design of the 800X features the new black face styling. When the power is off, this window remains black. When the power is turned on and radio reception is programmed, the tuning dials are illuminated. In addition, when FM stereo is being received, the words "FM STEREO" are illuminated.

With the receiver programmed for functions other than radio reception, the entire tuning dials turn black. When accidental overloads or short circuits activate the receiver's protector circuit, the unique protector lamp is also activated and the word "PROTECTOR" appears in this window.

Attractive Styling

The front panel of the 800X is finished in luxurious gold. The entire unit is housed in handsomely-finished wood of selected walnut.



FM Sensitivity: a new standard

With two stages of RF amplification utilizing the latest Field Effect Transistor (FET) and four ganged tuning capacitors, the 800X sets new standards in FM sensitivity. Just look at the figures: Sensitivity is $1.5\mu V$ (IHF). The S/N ratio is better than 60dB with 100% modulation, $500\mu V$ input. Selectivity is better than 45dB. IF rejection is better than 100dB. Cross modulation and image rejection figures are both better than 90dB. And stereo separation is rated at 38dB at 1KHz.

Automatic Stereo Switching

An advanced switching matrix system permits the 800X to switch automatically from FM mono to FM stereo broadcasts. It also has a stereo beacon that illuminates automatically whenever it receives a stereo broadcast. Pushbuttons for manual switching are also provided.

Main Front Panel Controls

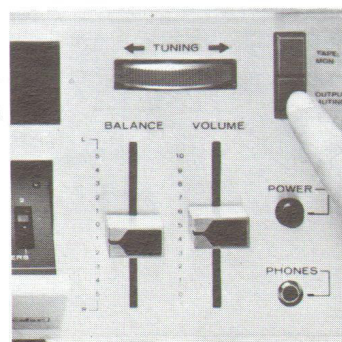
This revolutionary front panel design outdates all other receivers on the market. It provides better control and more convenient operation.

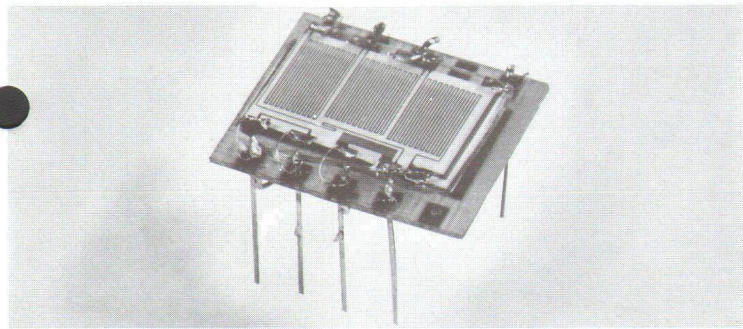
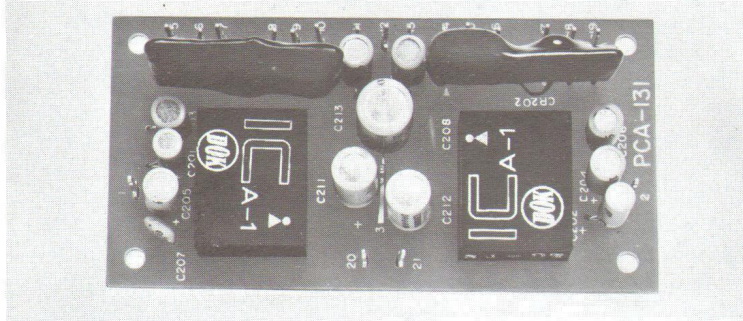
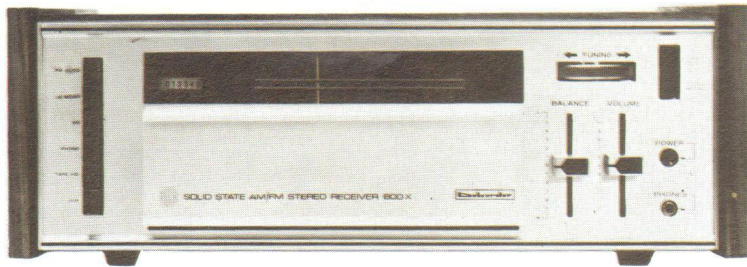
Unique Pushbutton Program Selectors

On the left hand side of the 800X, six program controls are grouped in a single row of pushbuttons. These light pushbuttons let you choose instantly between FM Auto Stereo switching, FM Mono, AM, Phono, Tape Head and Auxiliary components. On ordinary receivers, these functions are usually concentrated and controlled by a single knob. The advantage of this new system is that you can switch directly from one program function to another with one push of the desired button.

New Graphic Controls

Balance and Volume are not controlled with ordinary knobs, but with the latest graphic controls for precise operation.





New Integrated Circuit Design

The two ICs utilized by the 800X are the hybrid type combining tantalum thin-film integrated circuits with transistors. They are of an original Dokorder design and are produced by the same sputtering method as the sophisticated ICs used in many professional types of communications equipment. They have the following advantages over the semiconductor ICs and hybrid ICs manufactured by the screen method:

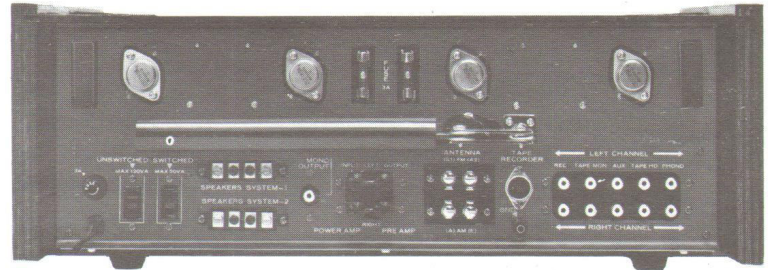
1. Better frequency characteristics and higher manufacturing precision
 2. Smaller temperature coefficient
 3. A higher degree of insulation between elements making up the IC
- More flexibility in circuit design for greater linearity

Filter Systems

A low (rumble) filter with 50Hz cutoff eliminates low frequency noises such as those from turntables and tape decks, and can also be used to eliminate any acoustic feedback in the system. A high filter with a 10,000Hz cutoff reduces surface noise on records, or those emanating from noisy stereo broadcasts. It also eliminates annoying tape hiss.

Rear Panel Features

To begin, the 800X operates at 110 to 120 volts, or 220 to 240 volts, 50 or 60Hz. Five speaker systems, from 8 to 32 ohms, can be driven by the 800X — two stereo systems totalling four speakers, and one extra for mono reproduction. There are two AC outlets, one of which is switched and rated at 50VA. The other is unswitched and rated at 120VA. Both an FM antenna and external AM antenna can be attached. In addition, a sensitive AM ferrite bar antenna is built-in. Both DIN and pin-plug tape recorders or decks, plus a turntable and auxiliary component can be operated by the 800X. There is even a special Ground terminal which enables the 800X to obtain an even greater S/N ratio when used. The power fuse is easily accessible as it is installed outside on the rear panel.

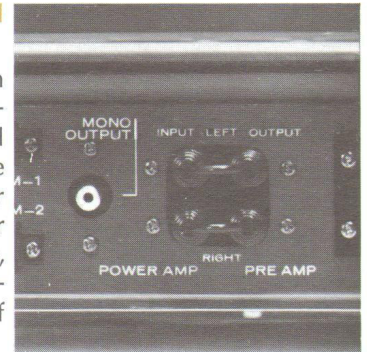


New Extrusion Rear Panel

The entire aluminum rear panel of the 800X has been manufactured by the expensive extrusion process and serves as one large heat sink. The receiver's four power transistors are mounted on this panel, and covered by a special screen.

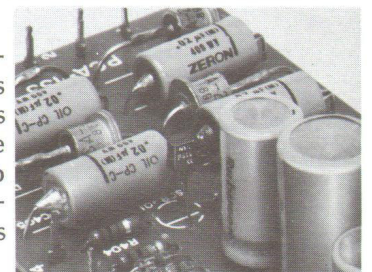
Separate Terminals for Pre- and Main-Amps

The 800X is also equipped with an output terminal for its pre-amplifier and an input terminal for its power amplifier, which are ordinarily linked with jumper cables. With the necessary filter unit between the two terminals, it is possible to create a multi-channel amplifier system, if desired.



Special Safety System

A special circuit has been provided to protect power transistors from damage through overloads and short circuiting. A new type protector indicator warning lamp that illuminates the word "PROTECTOR" on the front panel is activated by this circuit.



Other Features

In designing the Dokorder 800X, company engineers spent months looking at both the good and bad points of other quality receivers. Consumer surveys were also closely analyzed to find out what the discerning stereo enthusiast wanted most from his equipment.

This has resulted in a number of features you don't readily see in examining a receiver for the first time, but rather, features that you will learn to appreciate as you grow accustomed to operating the 800X.

Long hours were spent on determining the type and placement of tuning dials and switches, for instance. The result is that the 800X has noiseless pushbutton controls for responsive, one-touch operation. With 200 watts in power output, there is ample reserve power even for five different speaker systems. With a mono output jack provided on the rear panel, a third speaker system can be added to one of the two other sets, providing the so-called 3-D reproduction from the "speaker in the center". In addition, both sets of speaker systems and stereo headphones can be operated at the same time with the 800X, unless the operator chooses to shut off either or both speaker systems by use of the speaker switches provided on the front panel control console.

SPECIFICATIONS

TUNER SECTION

FM

Frequency range	88—108MHz
Sensitivity (I.H.F.)	1.5 μ V \pm 3dB at 98MHz
Harmonic distortion	0.5% at 400Hz, 100% mod.
Signal to noise ratio	Better than 60dB, 100% mod.
Selectivity	Better than 45dB
Image rejection	Better than 90dB
Cross modulation rejection	Better than 90dB
I.F. rejection	Better than 100dB
Capture ratio	2.3dB
Antenna input impedance	300 ohms balanced
Stereo separation	35dB at 1KHz

AM

Frequency range	535—1,605KHz
Sensitivity (I.H.F.)	5 μ V \pm 3dB at 1,000KHz
Selectivity	Better than 25dB
Image rejection	Better than 55dB

AUDIO SECTION

Total music power (I.H.F.)	200W \pm 1dB (4 ohms) 170W \pm 1dB (8 ohms)
Continuous power (per channel)	75W/75W \pm 1dB (4 ohms) 60W/60W \pm 1dB (8 ohms) Less than 0.8% at rated output
Harmonic distortion	15—100,000Hz \pm 3dB (AUX)
Frequency response	20—50,000Hz (8 ohms) (AUX)
Power bandwidth (I.H.F.)	PHONO 2.5mV (50 Kohms) TAPE HD 3mV (50 Kohms) AUX 180mV (100 Kohms)
Input sensitivity (for rated output)	TAPE play (pin) 180mV TAPE play (DIN) 180mV POWER 140mV (pin) 150mV (DIN) 33mV
Recording output	Hum and noise (below rated output, I.H.F.) 75dB (AUX) 70dB (PHONO) 80dB (volume minimum)
Damping factor (I.H.F.)	30 (8 ohms)
Speaker impedance	4, 8 and 16 ohms
Tone control (NF type)	BASS \pm 12dB at 100Hz TREBLE \pm 12dB at 10KHz
Low filter	—10dB at 50Hz
High filter	—10dB at 10KHz
Equalizer	PHONO RIAA, NF type TAPE HD NAB, NF type

OVERALL

Semiconductor	38 transistors, 31 diodes, 2 ICs
Power voltage	110—120V AC, 50 or 60Hz 220—240V AC, 50 or 60Hz
Power consumption	210VA
Accessories	Pin plug cable, pin plug, 3A fuse, AM antenna, FM antenna
Dimensions	20"W \times 6 $\frac{3}{4}$ "H \times 14"D
Weight	Receiver only 33 lbs. In shipping carton 41 lbs.

Design and specifications are subject to change without notice for purpose of improvement.

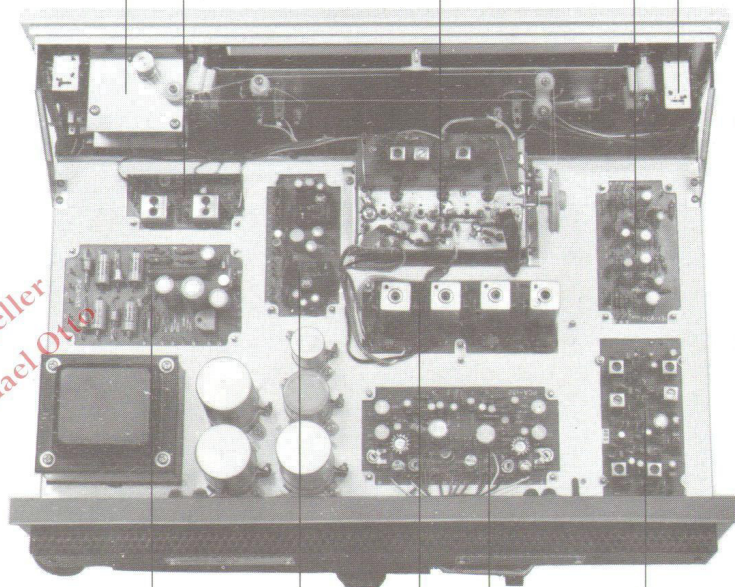
High-sensitivity Front-end with FET and 4-gang FM and 3-gang AM Tuning Capacitors

Tuning Knob with Large Flywheel

One-touch Input Selector Switches

AM IF Circuit

Preamplifier



FM IF Circuit

ITL Driver Circuit

Tone Control Circuit with ICs

Power Supply Circuit and Power Transistor Protection Circuit

FM MPX Demodulator (automatic FM mono/stereo switching)



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