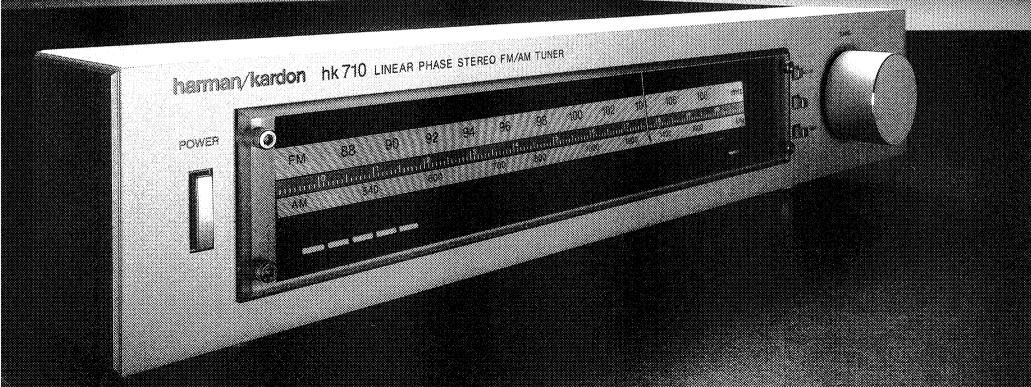
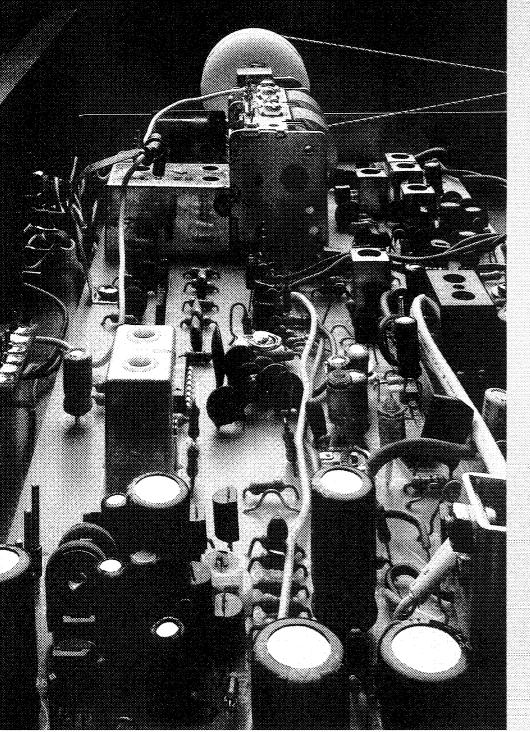
harman/kardon high technology separates





The hk710 was engineered with a single goal in mind. Musical quality.

Specifications alone can't determine the sound quality of an FM tuner. High sensitivity and selectivity in a tuner are very important. But at least as important is the ability of the tuner to amplify and process the audio signal for the preamplifier. Which is why we paid particular attention to the audio stage of the hk710.

Ultrawideband response.

Our ultrawideband design provides audio stage frequency response from .1 to 160,000 Hz compared with conventional narrowband design which typically provides response from 20 to 20,000 Hz.

This ultrawideband design delivers audible benefits, including incredibly fast transient response. Fast transient response is important because it means that the vast complexity of fundamental tones and harmonics reaches the listener in exactly the same time relationship as on the original signal. This maintains the spatial relationship of the various instruments, keeping the stereo image clean.

Sensitivity and selectivity.

The state of the art makes it easy to design a tuner with high sensitivity. But in practical applications, too much attention to sensitivity and not enough to selectivity results in a tuner that picks up many stations, but doesn't sound good.

harman/kardon hk 710 LINEAR PHASE STEREO FM/

OWER







In designing the RF circuitry for the hk710, our engineers set out to strike the perfect balance.

They conducted exhaustive field tests both in major metropolitan locations and rural locations to ensure better sound than any tuner near the price. The hk710 had to reject unwanted signals as well as focus on the desired station. It had to contend with multipath distortion in high rise buildings. And it had to handle signals of equal strength on the same frequency originating from stations just two hundred miles apart. The results are a tuner with impressive accuracy and quietness. The perfect balance of sensitivity and selectivity.

Phase-locked loop MPX decoding.

The hk710 uses phase-locked loop circuitry in its stereo multiplex section in order to ensure optimum separation and minimum distortion under all operating conditions. The phase-locked loop senses any phase error in the broadcast pilot signal and automatically makes the necessary corrections. As a result, stereo separation and THD levels are far better than in conventional tuners.

MPX null circuit.

Inherent in all FM stereo broadcasts is a 19 kHz subcarrier signal that can introduce audible distortion and also cause Dolby mis-tracking when FM stereo broadcasts are recorded. The standard means of eliminating this signal is a filter, which can introduce distortion itself. In the hk710, we've used a "null circuit" instead, which keeps the signal far cleaner.

Signal strength display.

While most conventional analog tuners incorporate mechanical meters for signal strength displays, we don't. We use faster, more precise LEDs.

Channel center display.

The hk710 has its channel center indicator ingeniously incorporated into the dial lights. When properly centered, the entire AM/FM scale glows

a soft green. When improperly tuned, the AM/FM scale glows a soft rose.

Other hk700 series components.

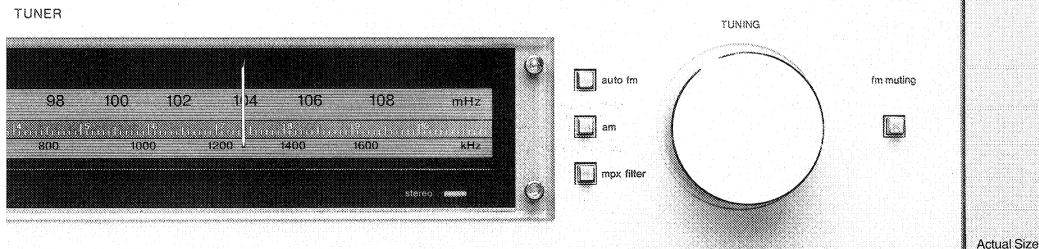
The hk710 is just one component in Harman Kardon's new 700 series of high technology separates. You can also add a preamplifier, amplifier and cassette deck from our line.

Each conforms to the same design philosophy and rigorous standards as the hk710.

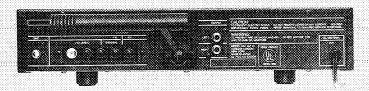
Each provides the ultimate in clean, accurate performance.

If you're building a complete component system that includes the hk710, you'll want to consider the rest of the 700 series.

They were made for each other.



hk710 analog tuner



Usable Sensitivity: 1.9 microvolts (IHF)
50 dB Quieting (mono): 3.5 microvolts
(stereo): 37 microvolts

Signal-to-noise ratio: -75 dB (stereo) -77 dB (mono)

Total Harmonic Distortion: .08% (mono at 1 kHz, 100%

modulation)

0.1% (stereo at 1 kHz, 100%

modulation)

Capture Ratio: 1.0 dB
Alternate Channel Selectivity: -70 dB
Image Rejection: -60 dB

IF Rejection: -95 dB

Spurious Response Rejection: -95 dB AM Rejection: -62 dB

Stereo Separation: 46 dB at 1 kHz

Output Level/impedance: 780 mV/2 k ohms

AM Usable Sensitivity: 250 microvolts/meter

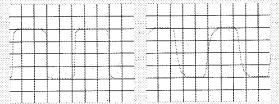
AM Signal-to-noise Ratio: -60 dB

AM Selectivity: -40 dB
AM Alternate Channel Selectivity: -35 dB
AM Image Rejection: -50 dB

AM IF Rejection: -45 dB Dimensions: 385 mm/15.2" Wide

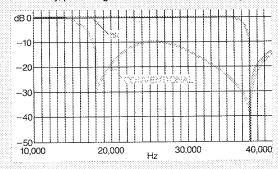
72.5 mm/2.9" High 320 mm/12.6" Deep

Weight: 4.2 kg 9.25 lbs.



Square wave response.

Accurate reproduction of a square wave, a result of careful attention to the IF state, is critical to maintain phase linearity. The hk710 on the left reproduces a square wave more accurately, producing a clearer, cleaner stereo image.



MPX null circuit.

Rather than filtering out the 19 kHz subcarrier signal like conventional tuners, the hk710 uses a null circuit. This results in frequency response at least one octave wider, and improved phase linearity.

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