



## Hervic's First Stereo Receiver

**The Equipment:** Hervic Model HR-150, a stereo FM receiver with digital tuning display, in metal case. Dimensions: 18 by 5½ inches (front panel); 15½ inches deep plus allowance for controls and connections. Price: \$850; optional wood case, \$39.95. Warranty: three years parts (except "nixie" digital-readout tubes, for which warranty period is one year) and labor, shipping paid one way. Manufacturer: Hervic Electronics, Inc., Los Angeles, Calif. 90025.

**Comment:** Hervic basically is an importer (of Connoisseur turntables, Stellavox tape decks, and some other lines) but has added this receiver, built in the U.S.—actually made by SAE, we understand, though it is available only through Hervic. It is an impressive looking beast, and its performance is very fine in many ways.

Until you turn the unit on it looks like an integrated amp. At the left of the dark-glass portion of the front panel are bass, midrange, and treble sliders; at its right are volume and balance sliders. Below the glass portion are push-push switches for AC power, main speakers, remote speakers, FM muting defeat, tape monitor, high and low filters, and mono (separate buttons for each channel that deliver left-plus-right mono when both are pushed). Then come interconnected selector buttons for aux 1, aux 2, FM, and phono.

When you turn on the receiver—and no matter what source is selected—the "nixie" tubes of the digital tuning readout light up behind the glass, along with signal-strength and center-tuning meters next to the volume slider. The large knob just below the readout, is, of course, for tuning. A red stereo indicator near the treble slider lights whenever the tuner section senses a subcarrier, even if the unit is on another source and/or the station is too weak to override the muting.

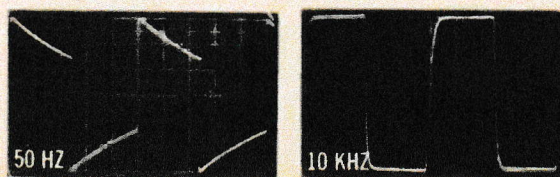
The front panel also has stereo phone jacks for headphone listening (live with any—or none—of the speakers selected), accessory tape in, and accessory tape out. This tape output parallels that on the back panel, so that recordings can be made on two decks simultaneously. The front-panel tape input, however, overrides that on the back panel; if both inputs are used, you will hear the output of the deck connected to the front panel and must remove its plug to hear that connected to the back. This wiring is not designed with tape dubbing in mind.

For inveterate recordists with two decks the system may prove a little cumbersome. Otherwise the controls generally are a joy to use (though we judged the low filter on our test sample to produce excessive switching

transients—loud enough to be annoying but not enough to endanger speakers). The tuning is silky. So is the action of the sliders, which have detents for the "normal" positions where appropriate. Pushbutton switch action is not as quiet as it might be, though the feel and spacing of these controls are excellent. The unit is very handsome indeed.

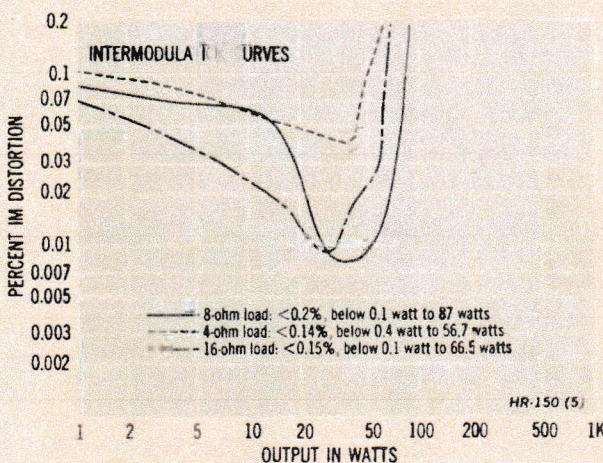
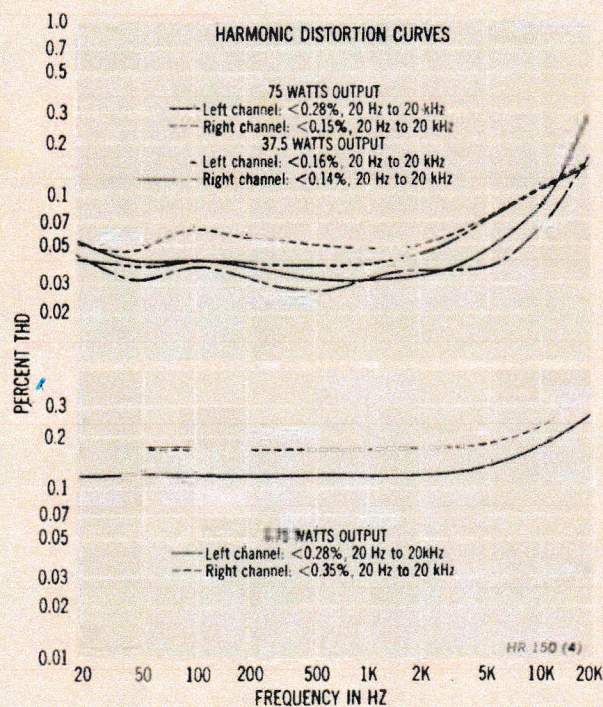
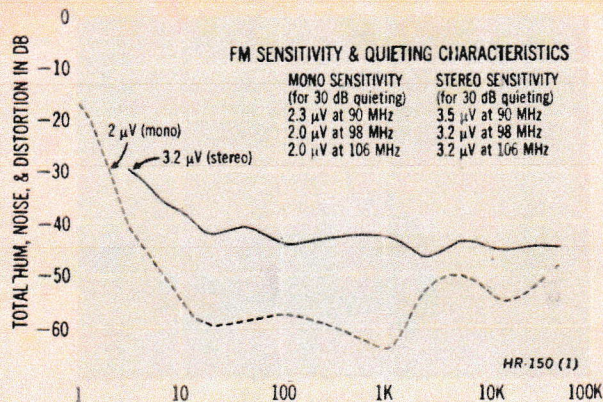
It also performed handsomely in most respects, both on the test bench and in the listening room. Its output is rated at a whopping 75 watts per channel—not really superamp territory, but hefty for a receiver. And the distortion measurements suggest superamps rather than receivers. The Hervic harmonic-distortion spec for the amp section is 0.25%, and all the full-output measurements are well below even this low figure except at the extreme top of the frequency range, where, in the left channel only, the 20-kHz measurement (with both channels driven) exceeds spec by a negligible 0.03%. Note that the amp actually will produce more than the rated 75 watts. With both channels driven the clipping point is over 100 watts per channel, while the power bandwidth indicates that maximum output (measured with only one driven) is in the region of 140 watts over most of the frequency range.

The tuner section figures also confirm or surpass most of Hervic's specs (which we assume to represent mono performance unless otherwise specified). The exceptions, in our test sample, are capture ratio (the lab got 3 dB instead of 2), selectivity (91 dB instead of 100), and high-frequency stereo separation (a little shy of the specified 30 dB at 10 kHz). None of these strike us as important. Stereo sensitivity is top-notch at 3.2 microvolts, but stereo quieting is not. The distortion measurements for stereo, though they are not really poor, are markedly inferior to those for mono and presumably contribute to the unspectacular stereo quieting curve, which nowhere reaches the 50-dB mark that we consider par for really fine tuners. In this area the tuner is



Square-wave response

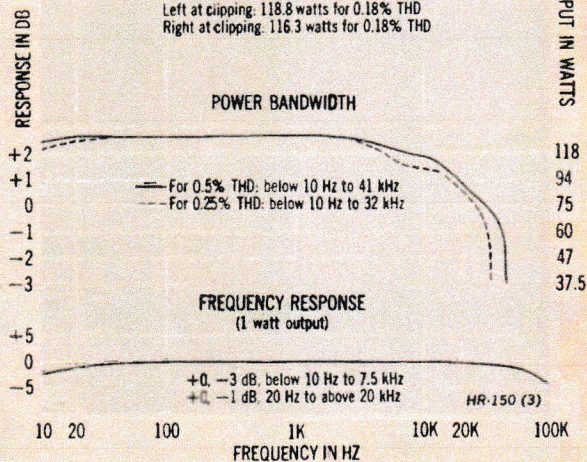




#### POWER OUTPUT DATA

**CHANNELS INDIVIDUALLY**  
Left at clipping: 142.8 watts for 0.33% THD  
Left at 0.25% THD: 137.8 watts  
Right at clipping: 137.8 watts for 0.25% THD  
Right at 0.25% THD: 137.8 watts

**CHANNELS SIMULTANEOUSLY**  
Left at clipping: 118.8 watts for 0.18% THD  
Right at clipping: 116.3 watts for 0.18% THD



#### Hervic HR-150 Additional Data

##### Tuner Section

Capture ratio	3 dB		
Alternate-channel selectivity	91 dB		
S/N ratio	72 dB		
THD	Mono	L ch	R ch
80 Hz	0.06%	0.44%	0.70%
1 kHz	0.04%	0.47%	0.38%
10 kHz	0.16%	0.68%	0.61%
IM distortion	0.37%		
19-kHz pilot	-65 dB		
38-kHz subcarrier	-68 dB		
Frequency response	mono		
	+0, -1½ dB, 20 Hz to 15 kHz		
	L ch		
	+½, -1 dB, 20 Hz to 15 kHz		
	R ch		
	+½, -1 dB, 20 Hz to 15 kHz		
Channel separation	>40 dB, 100 Hz to 2 kHz		
	>30 dB, 20 Hz to 8 kHz		

##### Amplifier Section

Damping factor	82	
Input characteristics (for 75 watts output)		
	Sensitivity	S/N ratio
phono	1.6 mV	62 dB
aux 1, 2	200 mV	84 dB
tape monitor	200 mV	85 dB
RIAA equalization accuracy		
	+0, -1 dB, 30 Hz to 20 kHz	
	+0, -2½ dB, 20 Hz to 20 kHz	



not up to the standards set by the rest of the design.

And, to repeat, those standards are high. All response curves, including those for FM and phono, are unusually flat. Distortion is exceptionally low and power exceptionally high. There is that important (though unmeasurable) sense of luxury about the styling—

particularly the digital readout. This evidently is a receiver designed for those who like the attributes of separate tuners and amps but would like to have them in a single unit. If that is the intent, the HR-150 largely succeeds in its aims.

CIRCLE 145 ON READER-SERVICE CARD

## Switchcraft's Dolby FM Compensator

**The Equipment:** Switchcraft Model 621P1, an equalizer to compensate for the 25-microsecond Dolby FM pre-emphasis when listening via tuners offering only the standard (75-microsecond) de-emphasis, in metal case with shielded leads. Dimensions: 2 by 2 3/4 inches (base plate); 1 inch high plus switch; output leads 18 inches long. Price: \$12.95. Warranty: none specified, though Switchcraft says it has a one-year repair/replacement policy through its dealers. Manufacturer: Switchcraft, Inc., 5655 N. Elston Ave., Chicago, Ill. 60630.

**Comment:** This device is intended to update for reception of Dolby-encoded FM broadcasts the many, many systems having conventional (75-microsecond) tuners plus Dolby tape equipment or a separate Dolby B noise-reduction "box." By using the decoder (playback) function of the Dolby equipment, the Dolby-encoded broadcasts can be restored to "normal" in this respect and the promised noise reduction achieved; but since the Dolby-processed broadcasts must (by FCC ruling) use 25-microsecond pre-emphasis, while all non-Dolby FM reception equipment provides 75-microsecond de-emphasis, compensation for the difference between the two still is required for flat over-all response. The Model 621 supplies it.

The case has a black paint finish, a two-position equalization switch (marked 25 and 75), a pair of pin-jack inputs (one for each channel), and a pair of output leads terminated in pin-type plugs. The unit is inserted into the leads that run from the tape output of the existing system's receiver, tuner, preamp, or integrated amplifier to the input of the Dolby recorder or noise-reduction unit. That is, the compensator should come ahead of the Dolby decoding in the reproduction chain. The compensator is left permanently in the system. When you are receiving a non-Dolby broadcast you can listen (normally via the source position of your tape monitor switch) or record (with the Model 621 set at 75 microseconds, which in effect cuts it out of the circuit) exactly as you always have done. When you are tuned to a Dolby-encoded broadcast you switch the compensator to 25 microseconds and use the FM-decode or Dolby-copy (different manufacturers have different terms) mode on the Dolby equipment and listen

via the tape monitor

In essence, that's it. As the 621's manual folder points out, "It is necessary to use a separate Dolby B-type noise-reduction unit or a tape recorder [that] has the Dolby FM feature." That is, it can't be used successfully with Dolby recorders having no way of feeding incoming signals through the Dolby decoder alone, the basic purpose of a Dolby-FM switch. Hookups for the other three possibilities—a Dolby recorder with the switch, a Dolby box with it, and a Dolby box without it—all are illustrated in the manual, but they are identified (or rather, misidentified, in our opinion) as the setups for "listening," "recording," and "listening and recording," respectively. Switchcraft tells us this information came from Dolby Labs, but it appears to us that a communications gap of significant proportions exists between the two. Therefore, we'd urge users to rely more on logic and on the instructions for their existing Dolby equipment in hooking up and using the Model 621.

This caveat in no way impugns the unit itself, however. In the right hookup it will give you correct listening and recording equalization of Dolby broadcasts. But there is one other caution that should be added. Switchcraft makes clear that the compensator is designed to work with recording outputs (from tuner, receiver, etc.) having impedances no greater than 2,000 ohms. Output impedances in typical high fidelity equipment run on the order of 600 ohms, and so far we have encountered no standard equipment for which this warning has any importance. But if the output impedance to which you connect the Model 621 is higher than 2,000 ohms (likeliest in European equipment, according to Switchcraft), treble response can suffer as a result of the mismatch.

Obviously the Model 621 is neither as elegant nor as handy a solution to the problem of correct Dolby FM de-emphasis as the switching built into some of the newer FM equipment for that purpose. But the vast majority of listeners don't have the newer equipment; if you're in that group, want to decode Dolby FM broadcasts, and have an appropriate Dolby unit, the Model 621 fills the need admirably. And it's the only device we know of that does.

CIRCLE 146 ON READER-SERVICE CARD

