

HF-150



The Award Winners

Listen to

From the longest of Long Wave to the top limits of the Short Wave spectrum, the HF-150 is designed to give you everything you needed in a real radio receiver. There has quite literally never before been a receiver like the HF-150, because only now have technology and engineering been combined in such an effective package. This is innovation at its very best.

Listening to radio can mean many things; news and current affairs from around the world; ships at sea; aircraft wending their lonely way across the oceans of the sky; sounds of conflict; sounds of peace; drama, real or staged; entertainment; crisis; they are all at your fingertips with a good radio receiver. This is the arena in which the HF-150 operates, and operates equally well at home by your fireside or travelling with you wherever you may be.

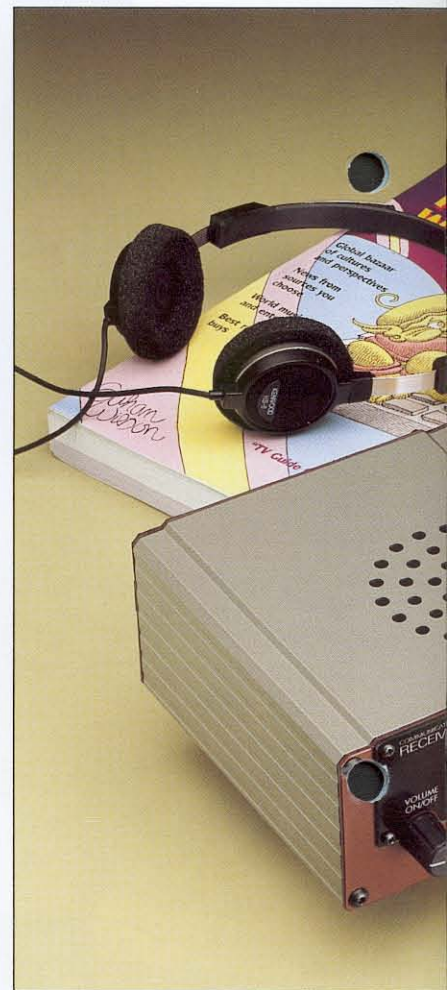
The HF-150 is designed to be a survivor. No flimsy boxes here; just solid hard alloy casings, metal panels, and machined parts, right down to the silky smooth tuning control and carefully crafted carrying handle supports. This level of mechanical strength carries the bonus feature of ensuring excellent stability and shock proofing. Take the HF-150 anywhere; it will handle more beatings than you can.

Its performance in electrical terms is impressive, and the specification comprehensive. Tuning range is all the way from 30kHz to 30MHz with variable tuning rate according to the speed of rotation of the main tuning knob. For large frequency shifts,

a single press on the "Fast" button gives tuning in 100kHz steps; a second press returning you to the normal ultra-fine tuning rate.

Reception modes are AM, Upper Sideband (USB), Lower Sideband (LSB), which also allows reception of CW/RTTY/FAX, and also included is an all new phase locked AM system which allows selection of either synchronous lower sideband, synchronous upper sideband, or synchronous double sideband. This is the ultimate arrangement for coaxing the best from poor short wave broadcasts, and can virtually eliminate the effects of selective fading.

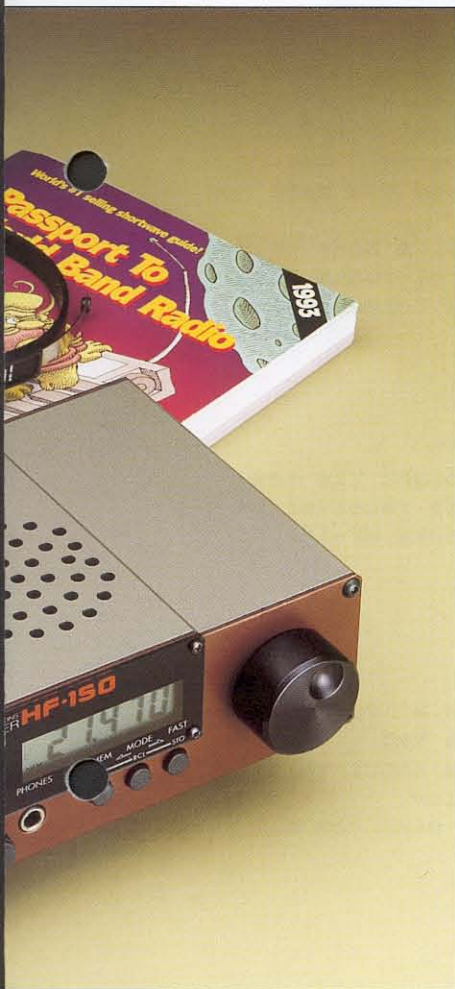
In the dual conversion design there are two carefully chosen IF bandwidths of 2.5kHz and 7kHz, selectable at will by the user to suit reception conditions, whilst the use of quartz crystal master oscillators ensures long term frequency accuracy. Tuning frequency is displayed on a clear 5 digit liquid crystal display which is also used to show



the World

modes, memory information, and all other important operating functions.

No less than 60 memory channels are provided, each storing frequency and mode. Memory access is easy and unambiguous, as are all the operating features



of the HF-150. In fact the whole concept of the HF-150 is to provide every desirable feature for the listener whilst keeping operation as simple as possible. This is a radio to use and enjoy; not one which baffles you with multi coloured buttons and unnecessary useless "gimmicks".

As in all Lowe receivers, particular attention has been paid to audio quality, and whether on the internal loudspeaker or high performance external unit, you can just sit back and enjoy easy listening. Broadcast or voice communications all appear with the same clear quality which characterises the Lowe sound.

The front panel is a masterpiece; the rear panel equally so, carrying sockets for dc

power (10-15Vdc from the supplied mains power unit or suitable source), external loudspeaker, output for tape recorder, one touch terminals for wire antenna, coaxial input for low impedance feeders or high impedance whip antenna, and the socket for the all important optional keypad. This is the famous keypad of which Larry Magne (Passport to World Band Radio) said "...quite simply this is the best keypad in the world". The keypad (KPAD-1) gives you unambiguous direct frequency entry and instant direct memory access.

Also on the rear panel are the easy access carriers for the internal batteries, and these can be either eight AA size alkaline cells or rechargeable Nickel Cadmium type. If rechargeable batteries are fitted, they are automatically charged whenever the HF-150 is plugged into a 12Vdc source.

A discreet slide switch selects "Normal" for average wire antennas, "Whip" which switches in a pre-amplifier for short whip antennas, and "Atten" for use on occasions when huge incoming signals are encountered.

Possibly the most amazing feature of the HF-150 is its size; only 185 x 80 x 160mm (that gives a footprint of half of one page of this brochure), and by careful choice of alloy materials for the all-metal construction, the HF-150 weighs in at only 1.3kg.

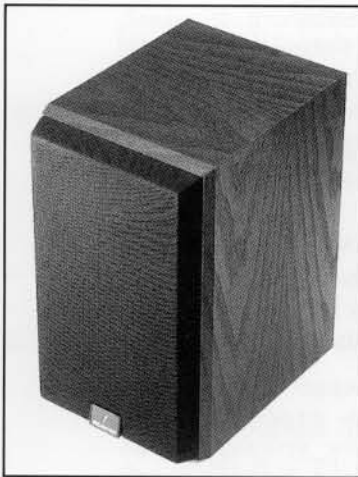
The HF-150 could be your first "real receiver". It will certainly bring you closer to the hobby of listening and give you satisfaction in owning the best receiver in its class.

HF-150 Accessories



IF-150 computer control interface.

A complete RS-232 interface built into a standard 25 way plug for direct connection to your computer. Gives complete control of frequency and mode, with frequency entry in kHz to 3 decimal places (actual resolution to nearest 8Hz). Memory entry and recall for all 60 memories can be carried out from the computer. The IF-150 is supplied complete with PC compatible software to give receiver control, logging, and includes a basic frequency database already loaded for the short wave listener.



XLS-1 external monitor quality loudspeaker.

The HF-150 is capable of producing audio of the highest quality, so we chose a British made monitor loudspeaker for our XLS-1 accessory. Its flat response makes even poor signals sound better, particularly when using synchronous AM mode, whilst good signals sound tremendous.

Size 220D x 160W x 280H mm
Weight 3kg
Finish Black ash

C-150 padded carrying bag

The C-150 is a well padded carrying case for the HF-150 to give protection when travelling around. The case is large enough to carry the HF-150, the ac mains power supply, and any owner's small accessories such as a pair of lightweight headphones, spare set of charged batteries, frequency guide etc. The case is designed so that the receiver can be operated without removing it from the bag, and a strong shoulder strap passes all around the bag for complete safety.



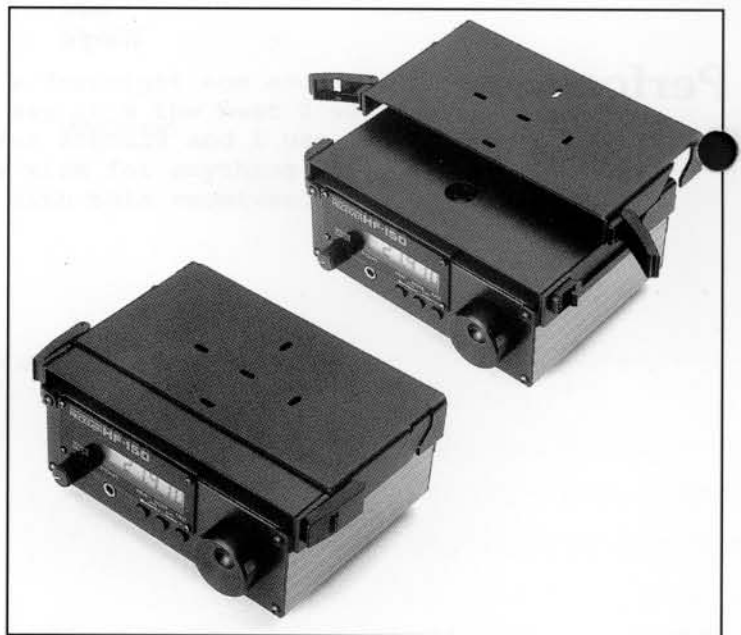
KPAD-1 keypad.

A convenient lie-flat keypad which allows direct entry of frequency anywhere within the tuning range of the HF-150. Need to listen to 12095kHz? just tap in 1-2-0-9-5, and there you are. Need to shift to 8045kHz? just tap in 8-0-4-5; no leading or trailing zeros to worry about, and no "enter" keys. Also allows direct access to the memories of the receiver. Comes complete with a 1 metre flexible cord and simply plugs into the rear of the HF-150



AK-150 portable accessory kit

The AK-150 comprises all the items you need to make the HF-150 completely portable, including a set of rechargeable batteries, telescopic whip antenna, carrying strap for shoulder and hand carrying, and brackets for mounting the strap on either side of the receiver. The shoulder strap has a flexible wire aerial woven into it, so that you can listen when carrying the receiver.



MB-150 mounting bracket.

The MB-150 is a quick release mount for the HF-150 receiver which uses the front and rear panel screws for fixing. The mount can be used to support the receiver on a desk top, or hung from an overhead shelf, and is absolute secure at all times. The two quick release catches allow easy removal of the receiver for security or storage.

HF-150

Technical information

Specification

Frequency coverage
Reception modes
Receiver system

Intermediate Frequency
Display

Tuning
Tuning steps

Memories

Memory function

Aerial inputs

RF attenuator
IF Filters
Audio outputs

Power supply

Size
Weight

Sensitivity

Selectivity

Dynamic Range

Spurious responses
Frequency stability

30kHz to 30MHz continuous coverage
LSB, USB, AM, Synchronous AM (USB, LSB, DSB)
Microprocessor controlled PLL tuning, dual conversion superheterodyne receiver.
First IF 44.999MHz to 45.000MHz: second IF 455kHz
5 digit LCD showing frequency to nearest 1kHz, receiver mode, and memory number
By spin-wheel, and direct entry keypad (option)
8Hz in LSB, USB, and AMS modes; 60Hz in AM mode.
Step size increases with rapid spin-wheel rotation.
Keypad frequency entry is to 1kHz resolution
60 memories holding frequency and mode. Data held in EEPROM for > 10 years
Preview, Recall, Store. Last tuned frequency is retained when receiver is switched off
50Ω input via SO-239 socket. 600Ω input and earth connection on press terminals. High impedance active aerial for whip via SO-239 socket
20dB
Wide: 7kHz, Narrow: 2.5kHz
Record output at approx. 200mV (3.5mm jack)
External loudspeaker (3.5mm jack)
Headphone output (mono or stereo) (6.3mm jack)
The internal loudspeaker is disconnected when headphones or an external loudspeaker are plugged in
12Vdc supply @ 130 to 300mA (2.1 mm power jack)
240Vac power unit supplied as standard (110V in some markets)
Internal batteries: 8 AA size cells. Nicad charging system included in main receiver.
185 x 80 x 175mm (W x H x D, overall)
Approx. 1.3kg (1.5kg inc. batteries)

Into 50Ω aerial input for 10dB signal/noise ratio.
AM signal modulated to 70% depth at 1kHz
< 2 μV 50kHz to 500kHz
< 1 μV 500kHz to 30MHz
< 0.3 μV 500kHz to 30MHz with whip amplifier
SSB signal unmodulated resolved at 1kHz
< 1 μV 50kHz to 500kHz
< 0.5 μV 500kHz to 30MHz
< 0.2 μV 500kHz to 30MHz with whip amplifier
Narrow filter - 2.6kHz @ -6dB, 4.1kHz @ -60dB
Wide filter - 6.5kHz @ -6dB, 10.2kHz @ -60dB
Reciprocal mixing (narrow filter)
75dB @ 5kHz, 85dB @ 10kHz, 100dB @ 50kHz
Third order intermodulation (narrow filter)
90dB @ 50kHz, intercept point +7dBm
87dB @ 20kHz, intercept point +4dBm
70dB @ 10kHz, intercept point -20dBm
>65dB rejection of images, IFs etc.
(Typical performance only)
At constant 20 degrees C. Drift < 30Hz/hour, Error < 50Hz
-10 to +50 degrees C. Error < 200Hz

Performance

What do the owners say?

We have had so many letters from happy owners of the HF-150 that we could quote from them all day, but rather than take comments out of context, here are a few typical letters which tell you how the HF-150 has become a landmark world wide.

"...Great size, Great features, a quality receiver, and simple but complete features at a reasonable price; in short, a little jewel. You have managed to put all essential features of top models like the R-5000 or Drake R-8 in the HF-150.

The tuning knob is super smooth and I find its reception capabilities equal if not superior to the R-5000, and find the sound quality and ability to stay on frequency to be excellent. The clarity of reception is exceptional and portability superb.

I hope you will continue to have excellent sales and ratings with this HF-150.

I highly recommend the HF-150 not only as a "First Real Radio", but to be bought by anyone wishing to own a professional receiver - no need to own a more expensive unit.

Thank You"

Mario G. Daigle
Fabreville Laval, Quebec, Canada

And another happy owner:-

"Congratulations on building one of the finest receivers I ever owned. I purchased the Lowe HF-150 from Universal Radio at the Monitoring Times Convention in Atlanta this past weekend. I am delighted to say you have no competition in this class of "portable receivers".

I had the opportunity to compare the HF-150 with a Sony SW55, a Sony SW77, a Sony ICF2010, and a Grundig Satellit 500 in one of the hotel rooms during the Convention. The HF-150 has no equal.....it blew away the competition."

James D. Strader, P.E.
Middleborough, Massachusetts, U.S.A.

And from Europe:-

"I'm Swiss, HB9IF, and before going on holiday to Italy I bought the new HF-150 receiver from your Swiss representative at Berne. This receiver is just FANTASTIC. The most wonderful holidays I ever had - thanks HF-150."

Harry Hoffmann
Zurich, Switzerland.

Whilst from England:-

"I've been using the HF-150 for about a fortnight now and as a listener of over 40 years standing I can honestly say it's the best I've had. The HF-150 performs well both on BC and Amateur signals and I use a short whip for frequencies down to 9MHz and a 6 metre wire for anything below.

Congratulations to everyone concerned with this receiver. I wish you all the success you deserve."

Joe Cowley,
St. Helens, Merseyside.

What more can we say?



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