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## Second Hand Icom IC-9100 HF/VHF/UHF Transceiver Fitted With 23cm £2695.00

### DESCRIPTION

The Icom IC-9100 all-in-one HF/VHF/UHF transceiver covers not only HF, 6M, 2M, 70cm and 23cm\* Amateur radio bands, but also a variety of operating modes including SSB, CW, AM and FM. It also features dual band simultaneous reception, satellite mode operation and RTTY decode on the display. One of the most exciting features of this model is that it is capable of D-STAR (Digital Smart Technology for Amateur Radio) DV (Digital voice) mode operation above the 10M band. The D-STAR DV mode allows simplex, repeater, Internet linking between repeaters, operation with low speed data messaging, GPS position reporting and other data communications capability.

Icom has also engineered into this advanced model a combination of its IF DSP and double conversion system technology providing performance comparable to Icom's range of high tier HF/6M transceivers.

\* Optional UX-9100 23cm band unit is required. **FEATURES** - Multiple-band, Multiple-mode HF to 23cm multi-band in one transceiver The IC-9100 fully covers HF/6M, 12M, 70cm amateur bands in multiple modes. By installing the optional UX-100 23cm band unit, you can be operational on the 23cm band immediately.

**Independent dual receivers** Two independent receivers in one radio. The IC-9100 receives two different bands simultaneously. In addition, the main and sub-band audio can be controlled with independent volume and squelch knobs, and received audio can be heard separately when external speakers are connected.

**Satellite mode operation** The satellite mode synchronizes the uplink (transmitting) and downlink (receiving) frequencies, and tracks the frequencies in the same tuning step. This function matches both normal and reverse mode satellites. Compensation of the Doppler effect can be performed easily. 20 alphanumeric satellite memory channels store frequencies, mode



operating time in the RTTY or SSTV modes.

HF/6M, 2M 100W, 70cm 75W The IC-9100 uses high efficiency power amplifiers and large heat sink, providing stable output power even during long periods of operation.

**FEATURES - DSP features and functions** 32-bit floating point DSP & 24-bit AD/DA converters The heart of the IC-9100 is the proven combination of the 32-bit floating point DSP and 24-bit AD/DA converters. This powerful combination supports many digital processing features such as modulation/demodulation, IF filter, twin PBT, AGC, noise blanker, noise reduction, manual and auto notch filters, speech compressor, RTTY demodulator/decoder functions.

**AGC loop management** Digital IF filters, manual notch filter and other digital functions are incorporated in the AGC loop management controlled by the DSP unit. The AGC effectively works for the desired signal and rejects blocking by strong adjacent signals out of the filter passband. The AGC time constant presets (slow, medium and fast) give the flexibility and speed needed for working pile-ups.

**Digital IF filter** The IC-9100 DSP allows you to "build your own" digital IF filter. You can quickly choose bandwidth, shape factor, and centre frequency, so that you can work that rare DX station. Three filter memories allow you to change filter settings instantly, a great help during contesting or other tough conditions.

**Digital twin PBT and IF shift** After "building your own" digital IF filter, you can use the digital twin Passband Tuning (PBT) to shift and narrow the IF passband until the interference is gone and you can clearly hear that weak signal.

**Noise reduction** The 16-step variable noise reduction can significantly enhance the receiver's signal-to-noise ratio, giving you a clean, clear audio signal that may make the difference between making the contact.

**Noise Blanker** The digital noise blanker reduces interference from pulse-type noise such as engine ignition. The noise blanker provides significant reduction of pulse-type noise. The noise blanker allows you to change the threshold level as well as blank duration parameter and attenuation level.

**Manual notch filter and auto notch filter** The manual notch filter controlled by the DSP has extremely sharp characteristics and provides more than 70dB of attenuation. The notch filter width is selectable from 2 types, allowing you to select the suitable filter width for the operating mode and band. It eliminates persistent beat tones without affecting the AGC loop function. In addition, the automatic notch filter tracks and eliminates two or more interfering signals, such as beat signals and carriers or tones from digital signals.

**FEATURES – Sophisticated operation with expansion capabilities** Large, Multi-function LCD The large multi-function LCD displays frequency, 9-character channel name, channel number, multi functional meter (includes S-meter, RF output, SWR and ALC level) for both the main and sub bands vertically. The dot-matrix portion of the LCD shows the following items:

- Channel name
- Function key assignment
- Band Scope
- RTTY decoder screen
- Memory keyer contents
- Graphical SWR scale
- D-STAR call sign, message, DR list
- GPS position information.

Up to 424 memory channels\* Each band (HF/6M, 2M, 70cm and 23cm\*) has a total of 99

RTTY demodulator and decoder The built-in RTTY demodulator and decoder allow you to instantly read a RTTY message on the display. No external units or PC are required. The built-in tuning indicator visually helps in critical tuning.

\* With optional UX-9100.

Ample CW functions All of the following CW capabilities are included in the IC-9100: • 4 USB connectors with 70 characters of transmit memory per channel. Multifunction can be selected by electronic keys. • With adjustable keying speed from 6.7Bwpm, dot-dash ratio from 1:1.2 to 1:1.4.5 and paddle polarity. • Bug keys and full break-in function. Also, the conventional CI-V remote control jack is built in to the IC-9100.

Double conversion superheterodyne Much like the technology in Icom's high-end HF transceivers, IC-9100 has used a double conversion superheterodyne system. It provides improved image rejection, mixer in the HF/6M band. The IC-9100 has a dedicated receiver IC that filters the antenna signal and rejects the 2nd image signal. This is required to improve IMD characteristics by simplifying the electronic circuitry.

\* A triple conversion system is used for the 23cm band.

+30dBm class third-order intercept point Using receiver design techniques introduced in Icom's highest grade HF transceivers, the IC-9100 has an IP3 of +30dBm (typ.) in the HF bands. In the VHF/UHF bands, the IC-9100 also provides improved IP3 performance over the previous models.

Three first IF filters (3/6/15kHz) for HF/6M band The IC-9100 comes with a built-in 15kHz 1st IF filter and can accept up to two optional filters (3kHz FL-431 and 6kHz FL-430). By changing the first IF filter width according to the operating mode, the desired signal is protected from adjacent inband signals at the later stages. The 3kHz first IF filter is especially effective in the CW and SSB modes.

Built-in Antenna Tuner for HF/6M band The internal antenna tuner automatically tunes for low SWR in the HF and 6M bands. Once you transmit on a frequency, the tuner can instantly retune the frequency using its built-in memory.

Antenna connectors Two antenna connectors for HF and 6M bands, with an automatic antenna selector, and one each for 2M, 70cm and 23cm\* are included in the IC-9100.

\* With optional UX-9100.

High frequency stability A high stability TCXO crystal oscillator provides  $\pm 0.5$ ppm of high frequency stability over a wide temperature range (0°C to +50°C). This allows for a long steady