

JUPITER

Model 538



JUDGE FOR YOURSELF!

JUPITER: A revolution in price versus performance for HF transceivers. Never has such a powerful HF transceiver been so easy to operate - simple, logical layout of front panel controls allows operation of the rig without the instruction manual tied to your wrist. A large, multi-function LCD graphics panel displays all radio functions and metering with a clean, uncluttered appearance. Take a look at what JUPITER brings to your shack. 34 built-in IF-DSP receive filters. No extra filters to purchase or install! Tailor the sound of your SSB transmit audio with 18 DSP-generated transmit bandwidths.

Software is the heart of JUPITER, and it's all stored in Flash ROM. This may be the last HF rig you ever need to buy. To add new features, simply visit our website, download the latest, and it's as if your rig rolled off the production line a few minutes earlier. Fully PC-controllable using provided graphical user interface software. That's right, run the entire radio from your personal computer, not just a few functions. Connect it to a serial port, and you're on the air. (Front panel operation is disabled and independent from PC GUI operation.) 100 watts output on all 9 HF ham bands, general coverage receiver, dual VFO's, RIT/XIT, passband tuning, adjustable AGC. Full QSK for CW and fast switching digital modes!

	JUPITER	FT920	TSS70SG	IC746
IF-DSP	YES	NO	NO	YES
# of stock RX filters	34	2	11	4
Variable SSB transmit B/W	YES	NO	YES	NO
Band sweep scope	YES	NO	NO	YES
Entire radio PC-controllable	YES	NO	NO	NO
Logic updates via Internet	YES	NO	NO	NO
Remote knob available	YES	NO	NO	NO
1 Hz frequency display	YES	NO	NO	YES
QSK amp keying loop	YES	YES	NO	NO
30-day, risk-free trial	YES	NO	NO	NO



302J Remote Encoder/Keypad:

Allows armchair tuning for your Jupiter. Direct frequency entry from keypad. Three function buttons above the tuning knob can control main tuning rate, mode switching, SPLIT reverse, VFO switching, and sweep function.



Model 705
Desk Microphone



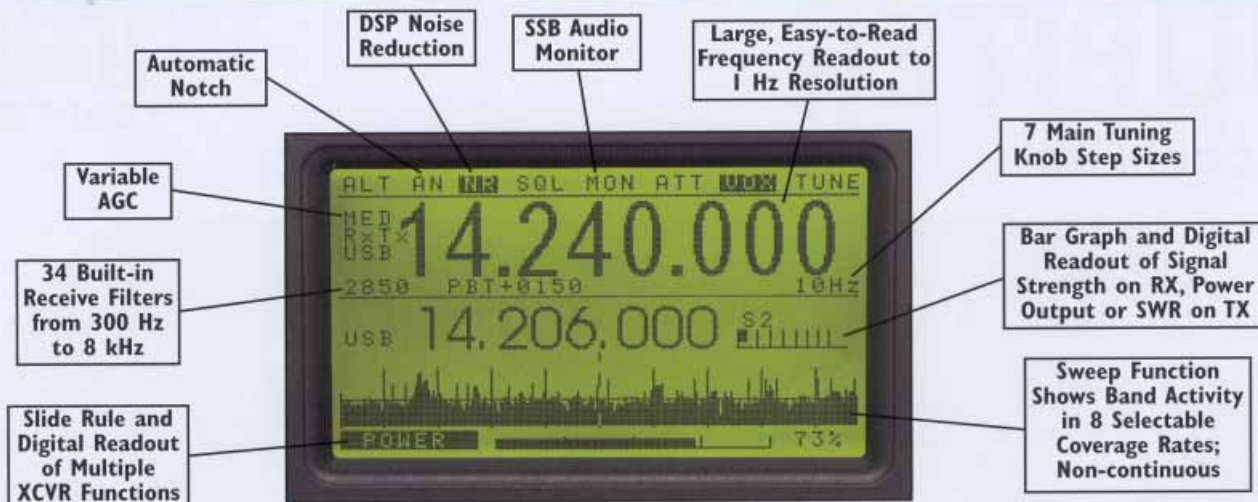
Model 963 Switching
Power Supply:
115/230 VAC input, 13.8 VDC
@ 25A output.



307C External
Speaker

Also Available: Model 701 Hand Microphone(not shown)
Model 538AT Optional Internal Automatic Antenna Tuner (not shown)

SCREEN DISPLAY



MENU DISPLAY



ADDITIONAL MENU ITEMS (not shown): High End RX Audio Boost, Screen Contrast, Noise Blanker, Speech Proc, Low End TX Audio Roll-Off

TX METER: Metering switchable between SWR and forward power.
TRANSMITTER: Transmitter can be disabled for RX-only use.
TX FILTER B/W: 18 selectable DSP transmit bandwidths ranging from 900 to 3900 Hz.
KEYING LOOP: Full QSK keying loop for keying true QSK linear amplifiers.
AUDIO SOURCE: Selectable to accept audio input from mic jack or rear panel ACC jack.
EXT T/R DELAY: Adjustable delay for keying of non-QSK linear amplifiers.
SIDETONE FREQ: CW sidetone frequency adjustable 0-1270 Hz in 10 Hz steps. CW xmit offset automatically tracks sidetone setting for easy zero beating using SPOT button.
SPOT VOLUME: For zero-beating; adjustable independent of main or sidetone volume controls.
CW QSK DELAY: Adjustable for just the "right" amount of QSK action.
CW WEIGHTING: Adjustable dit:dah weighting ratio for internal keyer.
CW KEYER: turns internal keyer on or off and allows acceptance of mono or stereo CW key connection through KEY jack.
AUTO SWEEP: Automatically re-activates the sweep feature for a new "look" at the band when the main tuning knob is moved out of range of the original sweep.
SWEEP RANGE: 8 selectable ranges from 240 Hz - 2.4 MHz allow small or large portions of band to be "seen" using the sweep feature.

GENERAL SPECIFICATIONS

MODES: LSB, USB, CW RTTY (AFSK), FM, AM.
FREQUENCY RANGE: Receive - 100 kHz to 30 MHz.
 Transmit - all ham bands 160-10 meters.
DISPLAY: LCD.
DUAL VFO's with SPLIT mode.
OFFSET TUNING: +/- 10 kHz receive and transmit.
MEMORIES: 100.
FREQUENCY ACCURACY: +/-90 Hz at 25 degrees C at 30 MHz for 1 year.
ANTENNA: 50 ohms unbalanced.
POWER REQUIRED: 1.5A receive, 20A transmit @ 12-14 VDC.
CONSTRUCTION: 8 epoxy glass PC boards, molded front panel, aluminum chassis, texture painted steel cover.
DIMENSIONS: HxWxD - 5" x 12.125" x 13" (12.7 x 30.8 x 33 cm). Depth measurement includes rear panel heat sink.
WEIGHT: 11.5 lbs. (5.23 kg).

TRANSMITTER

RF OUTPUT: 5 - 100 watts, ALC stabilized.
DC INPUT: maximum 250 watts @ 14 VDC, 100% duty cycle for up to 20 minutes. Indefinite continuous duty with user-supplied air cooling of rear panel heat sink.
MICROPHONE INPUT: 200 to 50K ohms. 4-pin, front panel connector accepts microphones with 5 mV (-67 dB) output. Polarizing voltage provided for electrets.
T/R SWITCHING: PTT or VOX on SSB, FAST or SLOW QSK on CW.
CW OFFSET: Programmable 400 to 900 Hz, DSP-generated. Sidetone automatically matches offset, volume adjustable independent of AF GAIN control.
FM DEVIATION: +/- 5 kHz.
METERING: Switchable to forward power, reflected power or SWR.
SSB GENERATION: DSP-generated.
CARRIER SUPPRESSION: >50 dB.
UNWANTED SIDEBAND SUPPRESSION: >60 dB at 1.5 kHz tone.
THIRD ORDER INTERMOD: 25 dB below two-tone @ 100 watts PEP.
SPURIOUS OUTPUT: Better than 40 dB below peak power output.

RECEIVER

SENSITIVITY: 35 μ V typical for 10 dB S+N/N @ 3 kHz bandwidth, SSB mode.
SELECTIVITY: 34 filters built in; 300 Hz, 330 Hz, 375 - 750 Hz in 75 Hz increments, 900 - 3000 Hz in 150 Hz increments, 3.3 - 6.0 kHz in 300 Hz increments, 8.0 kHz. All 1.5:1 shape factor or better.
DYNAMIC RANGE: 90 dB @ 3 kHz bandwidth at 50 kHz spacing.
THIRD ORDER INTERCEPT: +10 dBm.
NOISE FLOOR: -126 dBm @ 3 kHz bandwidth.
S-METER: Calibrated to 50 μ V at 59.
ATTENUATOR: -20 dB.
PASSBAND TUNING: +/- 2 kHz.
I-F FREQUENCIES: 1st I-F 45 MHz, 2nd I-F 455 kHz, 3rd I-F 12 kHz.
I-F REJECTION: > 60 dB typical.
IMAGE REJECTION: > 60 dB typical.
RECEIVE RECOVERY TIME: less than 20ms, including SPLIT mode.
AUDIO: speaker = 1 watt @ 4 ohms, line out = 1 V p-p into 600 ohms.

All specifications subject to change without notice.

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