



HF ALL BAND TRANSCEIVER

# IC-718



Icom Inc.

## Front mounted loud speaker

The IC-718 has a speaker mounted on the front panel. With the speaker facing the operator, audio sounds can be clearly heard without impediment during operation. It is no longer necessary to manually increase the volume to try and capture audio sounds.

## Superior basic performance

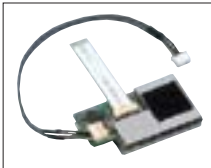
The IC-718 has 0.03–29.999999 MHz\* general coverage receive capability. A 4-element system is employed for the 1st receive mixer, providing superior receive IMD, especially from in-band near-by interfering signals. A well-designed double-conversion system to help minimize image and spurious responses for better signal fidelity, is also built-in. A newly designed PLL circuit has been adopted to improve C/N ratio characteristics. The combination of the 4-element system mixer and new PLL circuit allows superior basic performance as that of a commercial grade transceiver.

\*Guaranteed range: 0.5–29.999999 MHz

## Optional DSP capability

With the optional UT-106\* installed you gain AF DSP capabilities. The DSP includes the following to give you superior receive quality in your shack.

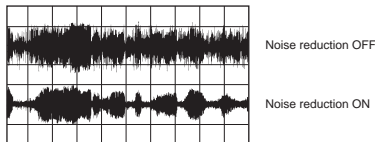
\* Already installed with some versions.



### Noise reduction:

Pulls desired AF signals from noise. Outstanding S/N ratio is achieved, providing clean audio in SSB and AM.

Comparison of receive signal speaker output



### Automatic Notch filter:

This automatically minimizes beat signals and heterodynes while preserving the receive signal. Also, the notch frequency is automatically adjusted to follow interfering beat signals—for example, reducing interference from RTTY signals during SSB operation.

## Interference rejection— IF shift

To reject interference, the IC-718 has an IF shift function which shifts the center frequency of the IF passband electronically to reduce adjacent interference.

## Microphone compressor

The IC-718 has a low distortion microphone compressor. This feature compresses microphone audio input to increase average audio output level. The result is, that talk power is increased. This function is effective for long distance communication, or when propagation conditions are poor.

## RF gain control

RF gain control is combined with the squelch control. The RF gain adjusts minimum response receiver gain, and ignores signals weaker than the pre-set level—providing pleasant stand-by, or scanning.

## Ample CW features

An electronic keyer with a variable dot/dash ratio (2.8:1 to 4.5:1) control is built-in. By simply connecting a paddle, easy CW operation can be made. The CW pitch and the key speed are also variable from 300–900 Hz, 6–60 wpm, respectively. Of course, full break-in capability is available with the adjustable break-in delay.

## VOX operation

A VOX (voice operated transmission) is included with the IC-718. It provides hands-free operation by detecting audio signals from the microphone. It's easy!

# THE ORIGINAL THE HF TRANSCEIVER

The HF bands allow you to communicate over distances covering many km around the world. With the superior performance of the IC-718, such as wide dynamic range, and clear operation you will find making long distance communication a pleasure. The combination of the advanced technology, along with the size and weight you will see the IC-718 will be the best you ever own.

## HF TRANSCEIVER

# IC-718



# IGIN OF ANSCEIVER

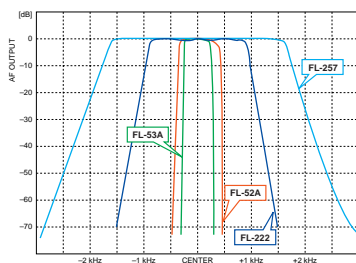
communicate over long dis-  
tances. Even to the other side of the  
world. The performance found in the IC-718  
transceiver, high C/N ratio, and full duty  
cycle make these contacts easy. Experi-  
ence the latest RF and digital tech-  
nology and simplified operation. You  
will have the most practical rig you will

## SCEIVER 718



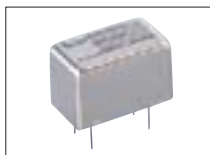
### Flexible filter selection

An optional IF filter can be installed into the transceiver to suit your operating preference.



### High frequency stability

When the optional CR-338 HIGH STABILITY CRYSTAL UNIT is installed, you get a very high frequency stability of  $\pm 0.5$  ppm.



### Selectable antenna tuner

Either the AT-180 or AH-4 optional antenna tuner can be used with the IC-718 to suit your installing conditions, or operating style. Of course, the AH-4 control circuit is built into the IC-718.

### Simple operation

The IC-718 is equipped with a minimum number of switches and controls for superior feature selectability. The 10-key pad on the front panel to directly enter an operating frequency, or a memory channel number. The auto tuning steps function helps quick tuning activates when turning the dial quickly. And the band stacking register is very convenient when changing operating bands.

### Digital S/RF meter

Built-in multi functional digital S/RF meter indicates signal strength level while receiving, and either transmit output power, ALC level or VSWR ratio while transmitting.

### Optional voice synthesizer

A clear, electronically-generated voice announces operating frequency, mode and receiving signal strength level when the optional voice synthesizer unit, UT-102, is installed.

### Other features

- USB, LSB, CW, RTTY (FSK) and AM modes are built-in
- Level adjustable noise blanker
- RF attenuator and Pre-amplifier
- Variety of scanning function types
- Total 101 memory channels are available
- Hand microphone is supplied, and more...





SPECIFICATIONS

GENERAL

- Frequency range :
  - Rx 0.030-29.999999 MHz\*1
  - Tx 1.800- 1.999999 MHz\*2 3.500- 3.999999 MHz\*2
  - 7.000- 7.300000 MHz 10.100-10.150000 MHz
  - 14.000-14.350000 MHz 18.068-18.168000 MHz
  - 21.000-21.450000 MHz 24.890-24.990000 MHz
  - 28.000-29.700000 MHz

\*Guaranteed range: 0.5-29.999999 MHz \*\*varies according to version

- Mode : USB, LSB, CW, RTTY (FSK), AM
- No. of memory Ch. : 101 (99 regular, 2 scan edges)
- Frequency resolution : 1 Hz
- Frequency stability : Less than ±200 Hz from 1 min. to 60 min. after power ON. After that rate of stability less than ±30 Hz/hr. at +25°C (+77°F). Temperature fluctuations 0°C to +50°C (+32°F to +122°F) less than ±350 Hz

- Power supply requirement: 13.8 V DC ±15 % (negative ground)
- Current drain (at 13.8 V DC):
  - Receive Stand-by 1.3 A
  - max. audio 2.0 A
  - Transmit max. power 20.0 A
- Operatable temp. range : -10°C to +60°C; +14°F to +140°F
- Antenna connector : SO-239 (50 Ω)

- Dimensions : 240(W)×95(H)×239(D) mm (projections not included) 9<sup>7/16</sup>(W)×3<sup>3/4</sup>(H)×9<sup>13/32</sup>(D) in
- Weight (approx.) : 3.8 kg; 8 lb 6 oz
- ACC connector : 13-pin
- REMOTÉ connector : 2-conductor 3.5 (d) mm (1/8")

TRANSMITTER

- Modulation system :
  - SSB Balanced modulation
  - AM Low level modulation
- Output power :
  - SSB, CW, RTTY 2-100 W
  - AM 2-40 W
- Spurious emissions : Less than -50 dB below peak output power

- \*spurious freq.: below 30 MHz: -50 dB, above 30 MHz: -60 dB
- Carrier suppression : More than 40 dB
- Unwanted sideband : More than 50 dB
- Microphone connector : 8-pin connector (600 Ω)
- KEY connector : 3-conductor 6.5 (d) mm (1/4")
- SEND connector : Phono (RCA)
- ALC connector : Phono (RCA)

Supplied accessories:

- Hand microphone • DC power cable • Spare fuses

RECEIVER

- Receiver system : Double-conversion superheterodyne
- Sensitivity (10 dB S/N) :
  - SSB, CW, RTTY 0.16µV (1.8-29.999999 MHz)
  - AM 13 µV (0.5-1.7999999 MHz)
  - 2 µV (1.8-29.999999 MHz)
- SQL sensitivity : Less than 5.6 µV (SSB)
- Selectivity :
  - SSB, CW, RTTY More than 2.1 kHz/-6 dB
  - AM Less than 4.5 kHz/-60 dB
  - More than 6.0 kHz/-6 dB
  - Less than 20 kHz/-40 dB
- Spurious and image rejection ratio : More than 70 dB (1.8-29.999999 MHz)
- Audio output power (at 13.8 V DC) : More than 2.0 W at 10% distortion with an 8 Ω load
- RIT variable range : ±1200 Hz
- PHONES connector : 3-conductor 6.5 (d) mm (1/4")
- EXT SP connector : 2-conductor 3.5 (d) mm (1/8")/8 Ω

Applicable U.S. Military Specifications

Standard	MIL 810 F	
	Method	Procedure
Temperature Shock	503.4	I
Rain Drip*	506.4	III
Vibration	514.5	I
Shock	516.5	I, IV

\* Rain Drip test was performed on the front panel only. Also meets equivalent MIL-STD-810-C, -D and -E.

OPTIONS



IC-PW1/IC-PW1EURO  
HF+50 MHz 1 kW  
HF LINEAR AMPLIFIER

Covers all HF and 50 MHz bands, provides clean, stable 1 kW output. Automatic antenna tuner and compact detachable controller are standard. 2 exciter inputs are available. (An optional OPC-599 is required.)



AH-2b ANTENNA ELEMENT  
For mobile operation with the AH-4. All bands between 7-30 MHz can be matched.



AH-4 HF+50 MHz AUTOMATIC ANTENNA TUNER  
Covers 3.5-30 MHz with a 7 m (23 ft) or longer wire antenna.



AT-180 AUTOMATIC ANTENNA TUNER  
Compact, light weight antenna tuner.



PS-125 DC POWER SUPPLY  
Compact power supply with high current capability.  
Output: 13.8 V DC (25 A max.)



SP-23 EXTERNAL SPEAKER  
4 audio filters, front mounted headphone jack.  
(Not available for EU countries)



SP-21 EXTERNAL SPEAKER  
Input impedance: 8Ω  
Max. input power: 5W  
SP-20 is also available.  
(Not available for EU countries)



SM-20 DESKTOP MICROPHONE  
High quality desktop microphone. Includes [UP]/[DOWN] switches and low cut function.



HM-36 HAND MICROPHONE  
Same as that supplied.



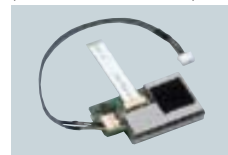
CT-17 CI-V LEVEL CONVERTER  
For remote transceiver control from a PC equipped with an RS-232C port.



CR-338 HIGH STABILITY CRYSTAL UNIT  
POC type crystal oscillator for improved frequency stability.  
Frequency stability: ±0.5 ppm



UT-102 VOICE SYNTHESIZER  
Announces the operating mode, frequency and signal strength level, etc.

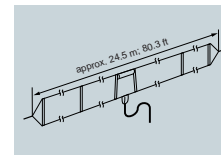


UT-106 DSP UNIT  
Provides AF DSP functions, such as noise reduction and auto notch. Already installed with some versions.



455 kHz FILTERS  
Have good shape factor and provide you with better reception.

- FL-52A CW/RTTY narrow; 500 Hz/-6 dB
- FL-53A CW narrow; 250 Hz/-6 dB
- FL-222 SSB narrow; 1.8 kHz/-6 dB
- FL-257 SSB wide; 3.3 kHz/-6 dB



AH-710 FOLDED DIPOLE ANTENNA  
Covers from 1.9 to 30 MHz band. Has a PL-259 connector. Easy to assemble (non-kink construction).

- OPC-599 ACC 13 PIN CABLE ADAPTER
- IC-MB5 MOBILE BRACKET
- MB-23 CARRYING HANDLE

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