



VHF & UHF P25 CONVENTIONAL & TRUNKED TRANSCEIVERS

IC-F9511T

VHF transceiver with full keypad

IC-F9511S

VHF transceiver with simple keypad

IC-F9521T

UHF transceiver with full keypad

IC-F9521S

UHF transceiver with simple keypad

Featured for the First Responder!



512 Channels/
128 Zones

P25 Conventional
w/Trunking Option

AES/DES
Encryption (Option)

Enhanced
Vocoder Ready

50W Output
Power

IP54
(Controller only)

Full Dot-matrix
LCD

Detachable
Controller*
*Optional RMK-2 required



Photo includes optional RMK-2 and OPC-609.

**Ready for: P25 conventional,
P25 trunking and
analog conventional.
All in one radio!**



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P25 Conventional & Trunking Features



P25 Conventional and Trunking

The IC-F9511 series offers both analog conventional and P25 digital conventional operation with a P25 trunking option. You can assign individual channels to analog conventional, P25 conventional or P25 trunking, all within one radio using digital/analog mixed mode operation.

Interoperability

The IC-F9511 series conforms to the standard specifications for TIA/EIA TSB-102, CAAB, Digital C4FM Transceiver Performance Recommendations and provides interoperability with other brand P25 equipment for public safety applications. The IC-9511 series is also P25 CAP compliant.

Individual ID and talkgroup ID

The IC-F9511 series has a 100 individual ID and 250 talkgroup ID memories. Use the display to visually select the person or group you're going to call.

Optional AES/DES encryption

AES and DES encryption keeps conversations secure with the optional AES/DES or DES encryption unit. An optional FIPS AES board is certified to FIPS 140-2.

OTAR (Over-the-Air-Rekeying)

The IC-F9511 series supports P25 OTAR and trunked OTAR for changing encryption keys over the air.

Enhanced vocoder ready

Uses the DVSI's AMB+2™ vocoder.

ATG (Announcement talkback group)

Call a large group of groups on a trunking network. Dispatcher can hear replies when radios respond to an announcement group call.

ESN programming

Save ESN's in a cloning file to only allow approved radios on trunking systems.

Detachable controller (front panel)

With the optional remote control kit, RMK-2 and separation cable, the front panel controller of the radio can be detached from the main unit. It allows flexible installation in limited vehicle space. Separation cable length is selectable from 1.9m (6.2ft), 3m (9.8ft), 5m (16.4ft) and 8m (26.2ft).

Dot matrix, multi-function LCD

With a high contrast dot matrix display, upper and lower case characters can be easily distinguished. The display shows 12 characters by 2 lines. LCD backlight is standard.



Internal clock setting example

IP54 dust-protection and splash resistance (Controller only)

The rugged front controller panel is resistant to shock and vibration. When used with the optional separation kit, RMK-2, the controller head has dust-protection and splash resistance, equivalent to IP54.

Vote Scan

The conventional voting mode scan detects the signal strength level of repeater stations and automatically selects the strongest station, useful for roaming between 2 or more repeater sites. Once you program the voting mode to a memory zone, you can easily start voting mode operation by changing the zone setting.

512 memory channels, 128 zones

Up to 512 memory channels can be divided into 128 memory zones, allowing you flexible channel and communication group management.

Tactical group function

The tactical group function allows you to copy memory channels to the tactical zone and temporarily regroup memory channels. Using the optional zone copy cable, memory channels in the tactical zone can be transferred from a master radio to other radios.

Abundant scanning functions

The dual priority scan monitors two primary channels alternately, while scanning other channels. The mode dependent scan function automatically changes the scan list according to the operating channel setting. The talk back function with timer beep, TX channel and cancel channel settings allow you to preset the transmission channel when you push the PTT button during a scanning operation or cancel the scanning.

22W amp for Public address (PA) and RX speaker functions

The IC-F9511 series has a built-in 22W BTL audio amplifier. When an external loud speaker is connected to the radio, you can speak through the radio's microphone. The RX speaker function allows you to relay the received audio over the loud speaker.

Programmable accessory connector

The IC-F9511 series has a D-SUB 25-pin

ACC connector for connecting external devices. It has reserved pins for programming to input operating channels, turn on/off functions and output received audio or honk a horn, etc. In addition, an ignition sensing line allows you to control the radio



power from the engine ignition switch.

Radio stun/kill and Power-on password function

The radio stun/kill function* disables a lost or stolen radio over the air, eliminating security threats from undesired listeners. The power-on password prevents unauthorized people from turning on the radio.

* P25 digital mode only.

Other features

- Dual Head option with IA-DH1095
- FM wide/narrow channel spacing*¹
- Built-in audio compander*¹
- Built-in inversion type voice scrambler*¹
- Self-ground microphone, HM-148G
- Talk around function
- CTCSS and DTCSS encoder and decoder*¹
- DTMF autodial*¹
- Microphone hanger action (On hook scan and off hook monitor)
- 2-Tone encoder and decoder*¹ and MDC 1200 compatible*¹

SPECIFICATIONS

	IC-F9511T/S	IC-F9521T/S
GENERAL		
Frequency coverage	136-174MHz	400-470MHz 450-512MHz
Number of channels	Max. 512 Ch/ 128 zones	
Type of emission	16K0F3E*, 11K0F3E, 8K10F1E, 8K10F1D	
Channel spacing	12.5/25, 15/30kHz*	
PLL channel step	2.5/3.125kHz	
Power supply requirement	13.6V DC	
Current drain (approx.)		
Tx 50W	11.0A	14.0A
Rx Max. audio/Standby	1000mA/350mA	1000mA/350mA
Antenna impedance	50Ω (SO-239)	
Operating temperature range	-30°C to +60°C; -22°F to +140°F	
Dimensions (WxHxD)	175x45x170mm; 6.89 x 1.77 x 6.69 in	
(Projections not included)		
Weight (approx.)	1.5kg; 3.3lb	
SP-35	320g; 11.3oz	
TRANSMITTER		
Output power (at 13.6V DC)	50W, 25W, 5W (Hi, L2, L1)	
Max. frequency deviation	±5.0kHz/±2.5kHz (Wide/Narrow)	
Digital	Max. pattern ±2.85kHz, Minimum pattern ±0.95kHz	
Frequency stability	±1.0ppm	
Spurious emissions	70dB min.	
FM Hum and noise	48/45dB typ. (Wide/Narrow) 48/43dB typ. (Wide/Narrow)	
Audio harmonic distortion	1% typ. (40% deviation)	
Ext. microphone impedance	600Ω (8-pin modular)	

	IC-F9511T/S	IC-F9521T/S
RECEIVER		
Sensitivity	0.25µV typ. (at 12dB SINAD) 0.25µV typ. (at 5% BER)	
Adjacent channel selectivity	81/53dB typ. (Wide/Narrow) 63dB typ.	79*2/53dB typ. (Wide/Narrow) 63dB typ.
Spurious response	85dB min.	
Intermodulation	78dB typ.	
Hum and noise	55/51dB typ. (Wide/Narrow) 52dB typ.	50/45dB typ. (Wide/Narrow) 52dB typ.
Audio output power	4W typ. (at 10% distortion, 4Ω load)	
External audio (D-sub)	22W typ. (at 10% distortion, 4Ω load)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/4Ω	

*1 TIA/EIA603B *2 81 dB typ. (406.1-420MHz), *3 85dB typ. (406.1-420MHz)
 Measurements made in accordance with TIA-102 (Digital), TIA-603B (Wide/narrow). All stated specifications are subject to change without notice or obligation.
 * 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

Applicable U.S. Military Specifications

Standard	MIL 810 F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4	I, II
Temperature Shock	503.4	I
Solar Radiation	505.4	I
Humidity	507.4	-
Settling Dust	510.4	I
Vibration	514.5	I
Shock	516.5	I, IV

Also meets equivalent MIL-STD-810C, -D and -E.

Ingress Protection Standard

Dust & Water	IP54 * (Dust-protection and water resistant)
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* IP54 tests were performed on the controller and RMK-2 only.

Supplied Accessories	* For IC-F9511T/F9521T only.
• Hand microphone, HM-148G	• DC power cable
• Microphone hanger	• External speaker, SP-35*
	• Mounting bracket kit
	• Key assign stickers

OPTIONS

Some options may not be available in some countries. Please ask your dealer for details.

SEPARATION KIT



RMK-2
Use with one of the following separation cables.

SEPARATION CABLES



OPC-609 1.9m; 6.2ft
OPC-607 3m; 9.8ft
OPC-726 5m; 16.4ft
OPC-608 8m; 26.2ft

HAND MICROPHONES



HM-152
HM-152T DTMF microphone
HM-148G Heavy duty microphone
HM-148T Heavy duty microphone with DTMF keypad

DESKTOP MICROPHONE



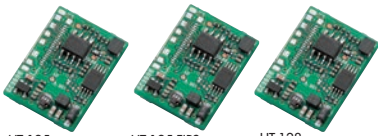
SM-26

EXTERNAL SPEAKERS




SP-30 20W rated input
SP-35: 2m cable
SP-35L: 6m cable

INTERNAL UNITS



UT-125 AES/DES ENCRYPTION UNIT
UT-125 FIPS AES/DES ENCRYPTION UNIT (FIPS version)
UT-128 DES ENCRYPTION UNIT

ZONE COPY CABLES



OPC-1532 Mobile to mobile cable
OPC-1871 Mobile to handheld

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Icom Inc.

1-1-32, Kami-minami, Hirano-Ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

www.icom.co.jp/world

Count on us!

Icom America Inc.

12421 Willows Road NE, Kirkland, WA 98034, U.S.A.
 Phone: +1 (425) 454-8155
 Fax: +1 (425) 454-1509
 E-mail: sales@icomamerica.com
 URL: <http://www.icomamerica.com>

Icom Canada

Glenwood Centre #150-6165 Highway 17A, Delta, B.C., V4K 5B8, Canada
 Phone: +1 (604) 952-4266
 Fax: +1 (604) 952-0090
 E-mail: info@icomcanada.com
 URL: <http://www.icomcanada.com>

Icom Brazil

Rua Itororó, 444 Padre Eustáquio Belo Horizonte MG, CEP: 30720-450, Brazil
 Phone: +55 (31) 3582 8847
 Fax: +55 (31) 3582 8987
 E-mail: sales@icombrasil.com

Icom (Europe) GmbH

Communication Equipment Auf der Krautweide 24, 65812 Bad Soden am Taunus, Germany
 Phone: +49 (6196) 76685-0
 Fax: +49 (6196) 76685-50
 E-mail: info@icom-europe.com
 URL: <http://www.icom-europe.com>

Icom Spain S.L.

Ctra. Rubi, No. 88 "Edificio Can Castanyer" Bajos A 08174, Sant Cugat del Valles, Barcelona, Spain
 Phone: +34 (93) 590 26 70
 Fax: +34 (93) 589 04 46
 E-mail: icom@icomspain.com
 URL: <http://www.icomspain.com>

Icom France s.a.s.

Zac de la Plaine, 1 Rue Brindejone des Moulinais, BP 45804, 31505 Toulouse Cedex 5, France
 Phone: +33 (5) 61 36 03 03
 Fax: +33 (5) 61 36 03 00
 E-mail: icom@icom-france.com
 URL: <http://www.icom-france.com>

Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road, Clayton, VIC 3168 Australia
 Phone: +61 (03) 9549 7500
 Fax: +61 (03) 9549 7505
 E-mail: sales@icom.net.au
 URL: <http://www.icom.net.au>

Icom New Zealand

Blacksale House, Altira Park, Herne Bay, Kent, CT6 6GZ, U.K.
 Phone: +44 (0) 1227 741741
 Fax: +44 (0) 1227 741742
 E-mail: info@icomuk.co.uk
 URL: <http://www.icomuk.co.uk>

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.
 Phone: +886 (02) 2559 1899
 Fax: +886 (02) 2559 1874
 E-mail: sales@asia-icom.com
 URL: <http://www.asia-icom.com>

Your local distributor/dealer:

Shanghai Icom Ltd.

No.101, Building 9, Caifuxingyuan Park, No.188 Maotang Road, Chedun Town, Songjiang District, Shanghai, 201611, China
 Phone: +86 (021) 6153 2768
 Fax: +86 (021) 5765 9987
 E-mail: bjicom@bjicom.com
 URL: <http://www.bjicom.com>