

VHF & UHF FM HANDIE TRANSCEIVERS

FT-209R/RH
FT-109RH
FT-709R

YAESU



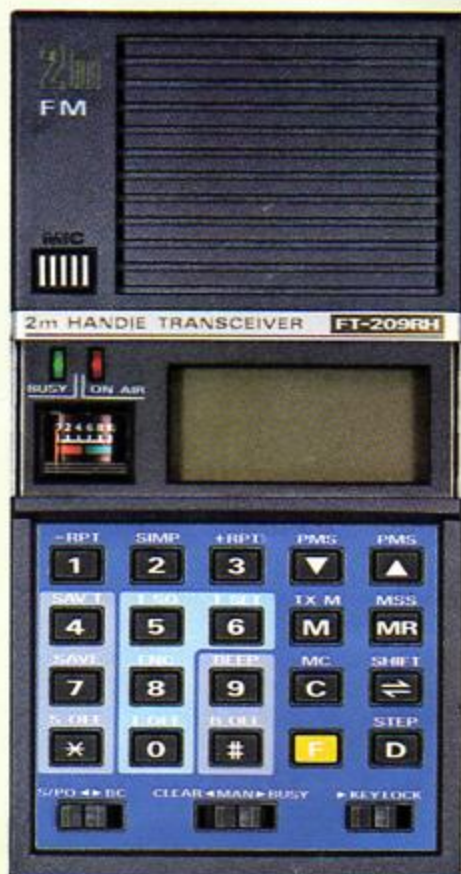
YAESU**FM HANDIE
TRANSCEIVERS****FT-209R/RH
FT-109RH
FT-709R****DESCRIPTIONS**

From the folks who originated the cpu-controlled synthesized amateur handheld transceiver comes the finest design of its kind ever to emerge. Blending the suggestions of experienced FM operators with the latest advances in microprocessor design and micro-miniature manufacturing, these transceivers offer a wealth of features far beyond anything previously conceived for lightweight hand helds.

The FT-209R provides 2.5W RF output (or 5W from the RH version), while the FT-109RH provides 5W and the FT-709R provides 4.5W output in the high power mode. Each of ten memory channels allows storage of either standard +/- shifts, or independent transmit and receive frequencies for any split or repeater shift in any channel, with touch-key reverse or simplex on either frequency. Scanning capabilities include step-programmable full or partial band or memory bank scanning for clear or busy; skip or select channel exclusive scanning; calling channel, select memory or dial priority scanning/monitoring; and other unique yet useful functions and combinations, all keypad programmable. Operational battery charge life can be greatly extended over standard squelched reception when monitoring, with Yaesu's programmable Power Saver System, which only activates the receiver to check the selected channel momentarily at programmable intervals. A front panel multimeter indicates either battery condition or received signal strength and relative transmitter output power, and a choice of slide-on Ni-Cd packs or case for AA-cells allows you to select the optimum power source for your needs. DTMF or Burst generators are included as per regional requirements, and a VOX system is included for completely hands-free operation with the optional headset. A keypad-programmable Tone Squelch option is available for Model A, which allows independent tones for each memory.

**MODEL CHART**

Type	FT-209R/RH				FT-709R				FT-109RH
	A	B	C	E	A	X	B	C	
Frequency Coverage (MHz)	144 ~ 147.995	144 ~ 145.9875	144 ~ 147.9875	144 ~ 147.995	440 ~ 449.975	430 ~ 439.975	430 ~ 439.975	430 ~ 439.975	220 ~ 224.995
Channel Spacing (kHz)	5/10	12.5/25	12.5/25	5/10	25/50	25/50	25/50	25/50	5/10
Repeater Shift	600 kHz	600 kHz	600 kHz	600 kHz	5 MHz	5 MHz	1.6 MHz	7.6 MHz	1.6 MHz
Tone Burst	not available	1,750 Hz			not available	1,750 Hz			not avail.
Tone Squelch	option	not available			option	not available			option
DTMF	included	not available			included	not available			included



19 soft rubber dual-function keys provide more flexible control than ever, yet operation remains easy: the keypad is carefully arranged, color-coded, and beeper assisted, while the high number of keys allows the more common commands to be one-touch operations.

Fat 1/4-inch LCD digits are complemented by ten memory and nine special function indicators, showing operating status at a glance.



Two 4-bit CPUs with lithium-backed RAM are the heart of these handies, handling much of the keying and memorizing that until now made it difficult to work all stations at will. The chip component design assures superior reliability.



High/low power, and VOX on/off and level switches are located on the top panel, along with BNC-type antenna jack.



All above photos are actual size.

OPTIONS

- YH-2 Headset
- MH-12A2B Speaker/Microphone
- FTS-6 Programmable Tone Squelch (for Type A only)
- PA-3 DC/DC Car Adapter/Trickle Charger
- MMB-21 Mobile Hanger Bracket
- NC-9B* 117VAC Compact Charger
- NC-9C* 220VAC Compact Charger
- NC-18B** 117VAC Compact Charger
- NC-18C** 220VAC Compact Charger

- NC-15 Quick Charger/DC Adapter
- FBA-5▲ Battery Case for 6 x AA-size dry cell
- FNB-3▲ 10.8V, 425 mAh Ni-Cd pack
- FNB-4▲ 12V, 500 mAh Ni-Cd pack
- CSC-10 Soft Case for use w/FBA-5 or FNB-3
- CSC-11 Soft Case for use w/FNB-4
- NC-25 Multi-Charger for 10 pcs FNB-3/FNB-4

* for FNB-3 only, ** for FNB-4 only

One or more of these items may be provided as standard, with others available as options through your local Yaesu dealer.

SUPPLIED ACCESSORIES

- FBA-5▲ Battery Case for 6 x AA-size dry cell
- FNB-3▲ 10.8V, 425 mAh Ni-Cd pack
- FNB-4▲ 12V, 500 mAh Ni-Cd pack
- YHA-14A Helical Rubber Antenna (VHF)
- YHA-44A Helical Rubber Antenna (UHF)
- YHA-22A Helical Rubber Antenna (VHF)

▲ One or more of these items may be provided as standard, with others available as options through your local Yaesu dealer.

Chart 1

Receive Squelched	Power save	Transmit (FT-209R)		Transmit (FT-209RH)		Transmit (FT-709R)		Transmit (109RH)	
		HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
150mA (175mA*) 45mA	1:1 ~ 1:10	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
	26mA ~ 11mA	650mA	300mA	1A	400mA	700mA	300mA	1.2A	400mA
Supply Voltage 10.8V				Supply Voltage 12.5V		Supply Voltage 10.8V		Supply Voltage 12.5V	

Chart 2

	FT-209R		FT-209RH		FT-709R		FT-109RH	
	DC Input	Power Output	DC Input	Power Output	DC Input	Power Output	DC Input	Power Output
FBA-5*	3.0W	1.8W	4.0W	2.3W	3.6W	2.0W	5.5W	2.3W
FNB-3	4.5W	2.7W	6.0W	3.7W	6W	3.5W	8.4W	3.8W
FNB-4	6.5W	3.7W	8.0W	5W	8W	4.5W	10W	5W

*AA-size dry cell x 6

SPECIFICATIONS

	FT-209R/RH	FT-709R	FT-109RH
GENERAL			
Frequency range	As per local requirements (see Model Chart)	As per local requirements (see Model Chart)	As per local requirements (see Model Chart)
Channel steps	See Model Chart	25/50 kHz	5/10 kHz
Type of emission	F3 (G3E)	F3 (G3E)	F3 (G3E)
Antenna	BNC female (YHA-14A rubber flex antenna supplied)	BNC female (YHA-44A rubber flex antenna supplied)	BNC female (YHA-22A rubber flex antenna supplied)
Supply voltage	6.0–15V DC	6.0–15V DC	6.0–15VDC
Current	See Chart 1	See Chart 1	See Chart 1
Case size	65(W) x 34(D) x 168(H) mm	65(W) x 34(D) x 168(H) mm	65(W) x 34(D) x 168(H) mm
Weight	Approx. 550g w/FNB-3 Approx. 600g w/FNB-4	Approx. 550g w/FNB-3 Approx. 600g w/FNB-4	Approx. 550g w/FNB-3 Approx. 600g w/FNB-4
RECEIVER (@10.8V)			
Circuit type	Double conversion super-heterodyne	Double conversion super-heterodyne	Double conversion super-heterodyne
First IF	10.7 MHz	21.6 MHz	21.6 MHz
Second IF	455 kHz	455 kHz	455 kHz
Sensitivity	0.25 μ V for 12dB SINAD, 1 μ V for 30dB S+N/N	0.25 μ V for 12dB SINAD, 1 μ V for 30dB S+N/N	0.25 μ V for 12dB SINAD, 1 μ V for 30dB S+N/N
Selectivity	15 kHz (–6dB), 30 kHz (–60dB)	15 kHz (–6dB), 30 kHz (–60dB)	15 kHz (–6dB), 30 kHz (–60dB)
Audio output	450 mW into 8 ohms for 5% THD, or better	450 mW into 8 ohms for 5% THD, or better	450 mW into 8 ohms for 5% THD, or better
TRANSMITTER (@10.8V)			
DC input/RF output	See Chart 2	See Chart 2	See Chart 2
Modulation	Variable reactance	Variable reactance	Variable reactance
Deviation	\pm 5 kHz	\pm 5 kHz	\pm 5 kHz
Max. bandwidth	16 kHz	16 kHz	16 kHz
Spurious response	–60dB or better	–60dB or better	–60dB or better
Microphone	Condenser, 2 kilohms	Condenser, 2 kilohms	Condenser, 2 kilohms

Specifications subject to change without notice or obligation

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