ICOM
F121S/F221S SERIES

A POWERFUL, RUGGED MOBILE WITH ADVANCED CAPABILITIES FOR MULTIPLE APPLICATIONS

FEATURE	FUNCTION	BENEFIT
GENERAL		
MDC 1200 Compatible	Transmit MDC 1200 PTT ID and emergency calls	The MDC 1200 encoding functions are compatible with fleets using existing MDC systems
Die-cast Aluminum Chassis	Mil-spec rated rugged design	Reliable performance, even even in demanding industrial and public safety applications
8 Memory Capacities	Program 8 separate channels for operation	Perfect for applications requiring a few channels without the extra cost or complexity of a higher quantity
Programmable Keys	Four programmable buttons for user assignable functions	Customizes function keys to user specific needs (see "Programmable Key Choices" section for detailed explanation)
Programmable LEDs	Three LED indicators for user assignable functions	Customizes LED indicators to users specific needs and provides real time status indications
Front Facing Speaker	Speaker faces forward from the radio	Clear audio and flexible mounting without losing audio up or down into the vehicle structure
Wide Frequency Range	Provides operation for full VHF (136-174 MHz) and UHF (440-490 MHz) high band range	Enables full utilization of the spectrum by using all available frequencies even if not co-located
Switchable Wide/Narrow Channel Spacing	12.5 kHz and 25 kHz channel bandwidth	The F121S radio features wide and narrow channel bandwidth by channel for compatibility with the older (wide) and newer (narrow) channel assignments. This increases flexibility to grow with the users changing needs
Ignition Switch Sense	Ignition sense connection point is easily accessable	Allows radio to be powered on or off by sensing the state of the ignition of the vehicle
Dimmer Input	Radio display indicators linked to vehicle dimmer circuit	Prevents accidental radio operation when vehicle is off, eliminating needless battery drain
Multiple Tone Squelch Signaling	2/5 tone encode/decode, and DTMF encode built in	Compatibility with existing CTCSS & DCS based systems

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Advanced Signaling	2/5 Tone encode/decode, and DTMF encode built in	Selective individual and group calling is available via this built-in feature. User can create a large number of user groups on a single channel. Excellent for isolating a call to a specific user without need-lessly altering others
Multiple 2-Tone Receive and Transmit	Receive and transmit up to 10 2-tone combinations	Allows user to monitor multiple 2-tones pages on 1 memory channel. User can assign any 1 of 10 channels to transmit per memory channel. Not limited to industry standard 2-tone tables. Enables multiple groups on the same channel (no scan or channel switch necessary)
Channel Up/Down Keys	Changes radio channel	The radio's channel up/down keys are large and easily accessible for effortless channel changing, even with a gloved hand
Power Switch	Turns radio on and off	The radio's power switch features "push and momentary hold," so the power cannot accidentally be turned on or off, if the user accidentally brushes up against it
Optional OPC-617 Connector	Interface for custom applications	The OPC-617, which plugs directly into the F121S, is fitted with a grommet for a weather resistant fastening to the radio's rear case and provides audio in/out, horn drive control lines, LCD backlighting lines, and AF detector signal outlines. Great for custom applications!
Over the Air Stun or Kill	Remotely disables radio	In the event of unauthorized use or theft, the radio can be disabled over the air from an authorized source. Excellent for maintaining communication integrity with minimal disruption
Scrambling	Voice encryption for communications privacy	The optional UT-109 provides up to 32 scrambling codes, and the optional UT-110 offers up to 1020 code combinations for the ultimate in communications privacy. Easy installation

RECEIVER SECTION

FEATURE	FUNCTION	BENEFIT
Independent AF Volume Knob	Adjusts the volume up or down	The radio's volume is easily adjusted, even when wearing gloves, with the easily accessed knob on the radios front panel
Hook Scan	Allows user to tie scan functions to the mic hanger state, or to ignore hanger state	Enables user to manually override "power on" scan function for simplified communication across multiple channels
Priority Channel	Frequent checking of an assigned channel	A great feature, when a highly important frequency needs to be continually checked for activity. Users can assign up to two channels as priority channels

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TRANSMITTER SECTION		
Squelch Tight	Per channel squelch sensitivity can be turned on or off	The ability to add a certain increment amount to the global Squelch Setting can be enabled on a per channel basis
High Power (50W/45W)	More power for better coverage	The F121S (VHF) radio is available in standard 50 watt. The F221S is available in 45 watts for extended coverage and more "punch" around obstacles and obstructions
ANI	Automatic unit number identification	This is an excellent feature for public safety, plant security, and any application where it is essential to identify the user during transmission
Emergency	Activates emergency call	The radios can transmit an emergency ID message, showing the unit number, and may repeat that emergency status message until acknowledged, and the emergency is under control. Essential for public safety and plant security, as well as in any hazardous, high-risk areas
Time Out Timer	Disables transmitter after extended use	The radios time out timer (TOT) is helpful if the radio is accidentally keyed, or if a user gets too "long- winded", tying up the frequency beyond normal use. The transmitter can also be locked out for an extended period of time
Transmit Inhibit	Disables transmitter from use	The radio can be configured to prohibit transmission if the channel is in a muted state, busy, when a CTCSS tone is received unmatched, or if the selected channel is a "receive only" channel
PROGRAMMABLE KEY CHOICES		
Channel Up/Down	Changes programmed frequency channel	Easy selects any of the 8 available channel assignments. Also used to select scan lists, banks and transmit TX codes
Priority Channel	Selects A or B priority channel	Easily selection of most important channels for frequent checking
Priority Re-write	Re-assigns priority A channel	Allows user to re-assign priority A channel as needed
Bank	Selects channel bank number	Allows access to channel groups
New Feature Based Scan	Scan features are fully programmable to allow setting TX channel, and cancel channel functions to be programmed as desired	User has greater flexibility to program scan as needed
Scan Tag	Provides scan select of any channel	This function adds or deletes any channel from a scan list

FEATURE	FUNCTION	BENEFIT
Lock	Disables most functions from programmable keys	Electronically locks all programmable keys, except call, monitor and emergency ID functions
Monitor	Unmutes audio channel	Muted channels can be "monitored" to check for traffic
Wide/Narrow	Selects bandwidth	Both wide (12.5 kHz) and narrow (25 kHz) channel widths can be selected, for compatibility with wide/narrow systems
High/Low	Selects transmitter power output levels	Selects low 1, low 2, or high-powered settings. Allows only the level of transmitter power needed, for reduced power supply consumption
Talk Around	Allows transmit on receive frequency in duplex	Provides direct, mobile-to-mobile communications, avoiding needless repeater use and congestion. Also provides direct communications when out of repeater range
Call	Selects individual calling code	Determines what TX coded channel is to be used
DTMF	Selects DTMF auto dial number	Selects the desired DTMF channel and transmits the code when users push the assigned key
Emergency	Activates emergency call	Provides single or repeated emergency ID transmissions. Cancelled by a simple "push and hold" function
Set	User set mode enable	Allows user to adjust backlighting level, function beep on/off and beep level, squelch level, minimum receiver audio level, audio filter selection, and microphone gain level
Scrambler	Enables/disables voice scrambler function	Provides control of the two optional voice scramblers. Gives access to activate voice encryption and communications privacy. (Only one board may be installed at a time)

SOFTWARE IMPROVEMENTS

Grid or List Style of Data Entry	Allows direct channel data entry	Streamlines channel entry, scan, list, and calling code data for large systems

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