



Volume LM 11.35

September 10, 2010

## Icom manufactures many radios with MDC-1200 and new EMDC features?

### What is MDC-1200?

MDC-1200 is a signaling technology used in analog, conventional two-way radio systems. It is comprised of a 1200-baud, 32-bit data transmission. MDC signaling includes a number of useful features such as PTT (unit) ID, emergency button, radio check, and selective call. These features are programmable and could be used in any combination desired by radio users.

### What is EMDC?

Enhanced MDC (EMDC) is built upon and expands MDC1200 data signaling protocol. EMDC is fully compatible with MDC1200 for backwards compatibility and allows future upgrades in features and functions without making your current equipment obsolete. This allows EMDC to:

- Integrate into your existing fleet of MDC capable radios-no need to replace existing radios
- GPS capabilities to locate your vehicles (AVL) and people (APL)
- Send free form short-text messages up to 48 characters
- Remotely conduct radio signal strength and battery diagnostics (RSSI poll)

### How does this work?

The data is sent in bursts over the radio system's voice channel, allowing signaling and voice transmission to co-exist on the same channel.

**MDC Functionality by Current Icom Model**

Function	F1721/1821						
	F3001	F3011	F3021/5021	F3161/5061	F50/60	F70/80	F9011/9511
PTT ID	TX	-	TX/RX	TX/RX	TX/RX	TX/RX	TX/RX
Emergency	TX	-	TX/RX	TX/RX	TX/RX	TX/RX	TX/RX
Select Call	-	-	-	TX/RX	TX/RX	TX/RX	TX/RX
Call Alert	-	-	-	TX/RX	TX/RX	TX/RX	TX/RX
Radio Check	-	-	RX	TX/RX	TX/RX	TX/RX	TX/RX
Stun	-	-	RX	TX/RX	RX	TX/RX	TX/RX
Revive	-	-	RX	TX/RX	RX	TX/RX	TX/RX
Message	-	-		TX/RX	TX	TX/RX	TX/RX
Alias	-	-	5 Max	500 Max	501 Max	502 Max	TX/RX



### EMDC Functionality by Current Icom Model

Function	F3161/4161	F5061/6061	F70/80	F1721/1821
AVL Report	YES	YES	YES	YES
AVL Poll	YES	YES	YES	YES
Automatic AVL Report	YES	YES	YES	YES
Update Auto AVL Rate	YES	YES	YES	YES
Update Auto AVL Offset	YES	YES	YES	YES
Short Text Message	YES	YES	YES	YES
Battery State Poll	YES	YES	YES	YES
RSSI Poll	YES	YES	YES	YES
MDC 1200 Compatible	YES	YES	YES	YES

#### Benefits:

**PTT ID-** Allows the dispatch and other units to know who is calling. Easily identifies callers in noisy environments as the radio notifies that user who transmitted. Use with alias to assign text names for easy identification.

**Emergency Call** - Allows users to quickly identify who transmitted an emergency signal. The PTT ID of the unit that transmitted the emergency call is displayed on screen.. The silent mode allows the user to call for help without alerting the people around them.

**SelCall-** Enhances channel efficiency by allowing users to call a selected radio out in the field without disturbing other users.

**Call Alert-** Useful in noisy environments where you may not hear normal calls or when the user is away from their radio.

**Radio Check-** Can check to see if a remote radio in the field is on, without disturbing or notifying the radio user. It can also check for a missing radio before initiating stun.

**Stun-** Program the radio to either disable other units or be remotely disabled itself in the event of an unauthorized use or a theft. Excellent for maintaining communication integrity with minimal disruption.

**Revive** - In the event that a radio was stunned, the dispatch can remotely revive the radio.

**Message** - You can send and receive up to 16 programmable messages to the dispatch. Improves channel efficiency allowing the user to send commonly used messages using MDC instead of voice. Enables privacy by sending messages in digital format rather than voice. Only the dispatcher can receive the messages.

**Alias-** Allows users to quickly identify transmissions. You don't need to memorize many numbers.

#### Who can use this?

- Police
- Fire
- EMS
- Local Government
- Transportation Companies
- Delivery Companies
- College Campuses
- Service Companies