

Essex County Fire Standard Operating Guideline

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Page 1 of 3	Revision #	
Radio Identifier Numbering System		

Scope

This Standard Operating Guideline applies to all fire departments within Essex County.

Purpose

When properly programmed, dispatch and field units can identify which radio is transmitting, based on the identifier. The purpose of this guideline is to ensure that all fire departments program radios with unique hexadecimal identifiers to ensure firefighter safety.

Definitions

1. **MDC:** Motorola Data Communications
2. **MDC-1200:** A Motorola two-way radio low-speed data system using audio frequency-shift keying. The data is sent in bursts over the radio system's voice channel.
3. **Simplex Channel:** A Simplex Channel refers to one-way communications where one party is the transmitter, and the other is the receiver.
4. **Half-Duplex Channel:** A half-duplex radio system provides communication in both directions, but only one direction at a time (not simultaneously). Examples are radio repeaters.
5. **Full-Duplex Channel:** A full-duplex radio system that allows communications in both directions at the same time (simultaneously). An example would be CMED or properly configured/equipped radio consoles and base radios.
6. **Hexadecimal Identifier:** A numbering system containing 16 sequential numbers as base units (including 0) before adding a new position for the next number. The hexadecimal numbers are 0-9 and then use the letters A-F.

Guideline

It is highly recommended that all radios utilized on member fire department frequencies be programmed with authorized radio identifiers.

Minimum Requirements

1. Each community will be assigned a unique block of numbers.
2. When issued, communities should notify the ECFA of the following:
 - a. Hexadecimal used
 - b. If issued to a person
 - i. Rank
 - ii. First & Last Name
 - c. If issued to a vehicle

- i. Type of vehicle (e.g., Engine, Ladder, Ambulance, etc.)
 - ii. Unit number
 - d. If issued to a position
 - i. Type of vehicle (e.g., Engine, Ladder, Ambulance, etc.)
 - ii. Unit number
 - iii. Position (e.g., Engine 1 Officer would be 100, and then numbers would go clockwise from the officer's position)
- 3. When radios are removed from service, the respective community should notify the ECFA that said radio had been removed from service. The community needs to provide the following information to the ECFA:
 - a. Unique hexadecimal identifier (if known)
 - b. If issued to an individual – provide their name
 - c. If issued to a vehicle – provide the vehicle name and number
 - d. If issued to a position – provide the vehicle name, number, and radio position within the vehicle.
- 4. Broadcasting Identifiers
 - a. Half or Full-Duplex Channels – Radios should be programmed to emit its MDC-1200 identifier prior to a user speaking on the radio (a Pre-MDC Identifier). This is to provide both a forced pause for the user so that the system can 'come up' and also an audible indicator that they are talking on a wide area channel.
 - b. Simplex Channels – Radios should be programmed to emit its MDC-1200 identifier at the beginning of a transmission (a Pre-MDC Identifier). This allows for the message to immediately go out (i.e., no waiting for the beep, but allows for the calling radio to be identified when transmitting a message.
- 5. Authorized Radio Identifiers:

Department	ID Range	# of Identifiers
Amesbury Fire Department	0100-01EE	225
Andover Fire Department	0200-02EE	220
Beverly Fire Department	0300-03EE	225
Boxford Fire Department	0400-04EE	225
Danvers Fire Department	0500-05EE	220
Essex Fire Department	0600-06EE	225
Georgetown Fire Department	0700-07EE	225
Gloucester Fire Department	0800-08EE	225
Groveland Fire Department	0900-09EE	225
Hamilton Fire Department	1000-10EE	225
Haverhill Fire Department	1100-11EE	225
Ipswich Fire Department	1200-12EE	225
Lawrence Fire Department	1300-13EE	225
Lynn Fire Department*	C000-C1EE	450
Lynnfield Fire Department	1500-15EE	225
Manchester Fire Department	1600-16EE	225
Marblehead Fire Department	1700-17EE	225
Merrimac Fire Department	1800-18EE	225
Methuen Fire Department	1900-19EE	225

Middleton Fire Department	2000-20EE	225
Nahant Fire Department	2100-21EE	225
Newbury Fire Department	2200-22EE	225
Newburyport Fire Department	2300-23EE	225
North Andover Fire Department	2400-24EE	225
Peabody Fire Department	2500-25EE	225
Rockport Fire Department	2600-26EE	225
Rowley Fire Department	2700-27EE	225
Salem Fire Department	2800-28EE	225
Salisbury Fire Department	2900-29EE	225
Swampscott Fire Department	3000-30EE	225
Topsfield Fire Department	3100-31EE	225
Wakefield Fire Department*	DB00-DBEE	225
Wenham Fire Department	3300-33EE	225
West Newbury Fire Department	3400-34EE	225
North Reading Fire Department	3500-35EE	225
North Shore Regional 911 Center	6000-60EE	225
Rehab 5	6100-61EE	225
Department of Fire Services (DFS)	6200-62EE	225

NOTE: * = Lynn and Wakefield MDC ID's correspond to MetroFire's ID List; it also reserves 026A-026E for Lynn Control Stations and 059A-059E for Wakefield Control Stations.

Additional Resources

The ECFA Communications Sub-Committee is available as a resource to every fire department and may be able to provide further guidance or best practices with equipment purchases, programming, or other communications specific concerns.