

LMR SCRAMBLER

TRANSCRIPT[®]
INTERNATIONAL

MO83-4XX

TRANSCRIPT MO83-4XX MODULE

Prevents Eavesdropping by Unwanted Listeners

The MO83-4XX secures confidential communications from scanner listeners, the media, criminals, and terrorists. Choose from four levels of security — from basic (400) to high (460) — according to the sophistication of the adversary and the threat presented if information is compromised.

Designed for the Popular Motorola Commercial Radio Series

The MO83-4XX module fits inside the radio and provides voice security for radio communications. This module features a custom form factor to fit several popular Motorola radio models, including the CP140, CM340, CM140, PR400, EP450, EM400, CM300, and PM400.

Easy Installation

The scrambler simply plugs into a flexible circuit connection inside the radio, and replaces the keypad circuit board in portable radios that have a keypad and display. To obtain the full range of features, it also requires the simple addition of two wires soldered into the radio. The addition of the plug-in flex circuit is needed for all portable installs without keypad and display, and an option board installation kit is required for all mobile installs.

Very Low Power Requirements

The scrambler has a very limited effect on the battery life of the radio.

Outstanding Voice Quality

Transcript modules provide clear, natural sounding speech and excellent voice recognition while the radio is operating in the secure mode.

Over-the-Air-Reprogramming (OTAR)

Security codes can be changed remotely while the radio is in the field and operational.

No Manual Switching Required

The automatic receive option allows for automatic detection of both clear and coded communication modes.

Disable Lost or Stolen Radios

The disable radio function can make the radio unable to receive or transmit messages, preventing breaches in communications security.

Normal Voice Band Operation

Does not affect the use of a system's subaudible signaling options, transparent operation through repeaters.



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MO83-4XX SPECIFICATIONS

GENERAL SPECIFICATIONS¹

Size (L x W x D)	1.99" x 1.62" x 0.13" (50 mm x 41 mm x 3 mm)
Operating Temperature	32° to +158° F (0° to +70° C)
Receive Coded / Clear	750 mV P-P
Transmit Coded / Clear	250 mV P-P
Supply Voltage	7.5 Vdc nominal, regulated to 3.3 Vdc
Current Drain	8 mA nominal

FEATURES / OPTIONS

Coded / Clear Switch Options	Configurable choice of radio button (most radios)
Coded / Clear Indication	Connection available for LED indicator
Programming Method ²	Over-the-Air-Reprogramming (OTAR)
Scramble Code Select	Configurable choice of radio button (most radios)
Signaling Method ²	FlashCall
Emergency ²	Connection available

COMPATIBLE WITH MOTOROLA RADIO MODELS

CM340	CP180	PR400
CM360	EM400	Radius CM200
CP140	EP450	Radius CM300
CP160	PM400	
Call for additional radio models		

RADIO SYSTEMS MANAGEMENT

ANI	4 digit, 0000 to EFFF
Emergency	Retry until acknowledged
Status	Not available
Selective Calling	Yes
Individual IDs	61,440
Groups	255
Fleets	16
Over-the-Air Features (Modem Required)	TR30-3010 / 3060 / 3061
Over-the-Air-Reprogramming	Yes
Enable / Disable Radio	Yes
Change Encrypt Codes	Yes
Change ANI, Group, Fleet	Yes
Force Coded / Clear	Yes
Export	Requires license

SECURITY SPECIFICATIONS

SCRAMBLER SERIES	MO83-400	MO83-416	MO83-430	MO83-460
Scrambling Method	Low-Level CVP [®] Single Inversion	Low Rate Dynamic CVP I	Medium Rate Dynamic CVP II	High Rate Dynamic CVP III
Rate of Change Per Second (maximum)	N/A	1.03	315	1,170
Scramble Codes	256	> 16 Million	> 33 Million	> 50 Million
Master Codes	> 1 Billion	> 1 Billion	> 1 Billion	> 1 Billion
Scramble / Master Code Combinations	N/A	> 28 Quadrillion	> 56 Quadrillion	> 84 Quadrillion
Code Storage Size	16 Codes (Selectable)	16 Codes (Selectable)	16 Codes (Selectable)	16 Codes (Selectable)
Transmit Coded / Clear	Manual Select	Manual Select	Manual Select	Manual Select
Receive Coded / Clear	Manual Select	Automatic	Automatic	Automatic
Interoperability	Transcrypt 400, 410, 416, 430 and 460 Series Scramblers			

UPGRADE OPTIONS

Available Software Upgrades	None	430, 460 Levels	460 Level	None
Modem Compatibility	TR30-3010 / 3060 / 3061	TR30-3010 / 3060 / 3061	TR30-3060 / 3061	TR30-3060 / 3061
Upgrade Method	N/A	OTAR	OTAR	N/A

¹ All specifications are typical and subject to normal manufacturing tolerances. Specifications subject to change without notice.

² ANI, OTAR, Emergency and FlashCall features for the MO83-400 are available when in clear mode only.