Jenal Communications

Model SC-2

Selcall/Telcall Microphone

Programming Instructions

(Software Version 1.00)

IMPORTANT – READ THIS PAGE FIRST

Programming sequence for SC2 Selcall unit

All programming is carried out via the keypad on the SC2 microphone/Selcall unit. Programme mode is entered by holding both the ★ and # keys down together then switching on the unit. When programming mode is entered you will hear three short beeps. You then have a maximum of eight seconds between key entries. The only allowable inputs are 1 to 9 and 0.

Programming takes the form:

S1 S2 S3 S4 M1 M2 M3 M4 M5

where S1 to S4 is the self ID of the Selcall unit and M1 to M5 are five "MODE" control words. If S1 to S4 are set as:

S1 = 8 S2= 4 S3 = 6 S4 = 3

then the Selcall number of the unit is 8463

M1 to M5 determine the operating mode of the Selcall unit as shown on the following pages.

To calculate M1 to M5 first decide which functions you require and then add up the "Decimal" numbers next to the functions. The result is the number which has to be programmed into the MODE position.

For example it is required to programme the Selcall with a self ID of 8 4 6 3 and with the following functions:

a) Codan Format - Changeable - Selcall/Telcall
therefore add 3 + 4 + 0 = 7 = M1

b) Selcall Beacon - Receive enabled - No transmit
therefore add 0 + 0 + 4 = 4 = M2

c)Horn Alarm - Piezo Alarm - Normal Mute
therefore add 1 + 2 + 0 = 3 = M3

d) Scan pulses - scan auto-reset timer enabled
therefore add 0 + 2 = 2 = M4

e) 7 minute scan auto-reset timer
7 = 7 = M5

The programming sequence is then -- 8 4 6 3 7 4 3 2 7

MODE 1

Bit 3	Bit 2	Bit 1	Bit 0	Decimal	Description
			0	0	Format control - see below
			1	1	Format control - see below
		0		0	Format control - see below
		1		2	Format control - see below
	0			0	Fixed Format
	1			4	Changeable Format (from keypad)
0				0	Selcall/Telcall
1				8	Selcall Only

Valid codes are 1 to 3, 5 to 9 (do not use codes 0 or 4 - use 2 or 6 respectively)

MODE 1 Bits 0 and 1 = decimal 0 - Select Barrett/Codan Format for Selcalls (only use code 0 in conjunction with code 8)

MODE 1 Bits 0 and 1 = decimal 1 - Select WA2 Format for Selcalls/Telcalls

MODE 1 Bits 0 and 1 = decimal 2 - Select Barrett Format for Telcalls

MODE 1 Bits 0 and 1 = decimal 3 - Select Codan Format for Telcalls (see also **MODE 4 bit 2**)

NOTE- Unit will automatically receive and store any of the three Telcall formats. Barrett and Codan Selcalls use a common format. Unit will retransmit a stored Selcall/Telcall (by using "##" command) in the same format as it was received irrespective of what format is selected by Bits 0,1 and 2.

MODE 1 Bit 2 = 0 (add decimal 0) - Sets unit for fixed transmit format as selected by Bit 0 and Bit 1.

MODE 1 Bit 2 = 1 (add decimal 4) - Allows user to change between WA2, Barrett and Codan formats by the use of special keypad codes:-

#1 Selects WA2 format,
#2 selects Barrett format,
#3 selects Codan format.

Unit defaults to format selected by Bit 0 and Bit 1 on power up.

MODE 1 Bit 3 = 0 (add decimal 0) - Allows unit to transmit both Selcalls and Telcalls in selected format.

MODE 1 Bit 3 = 1 (add decimal 8) - Allows unit to transmit Selcalls only. Unit can still receive Telcalls and store them for recall using ## command.

MODE 2

Bit 3	Bit 2	Bit 1	Bit 0	Decimal	Description
			0	0	Selcall beacon enabled
			1	1	Selcall beacon disabled
		0		0	xx99 beacon enabled
		1		2	xx99 beacon disabled
	0			0	Transmit enabled
	1			4	Transmit disabled
0				0	Receive enabled
1				8	Receive disabled

Valid codes are 0, 1 to 8.

MODE 2 Bit 0 = 0 (add decimal 0) - Enables Selcall beacon response.

MODE 2 Bit 0 = 1 (add decimal 1) - Disables Selcall beacon response

MODE 2 Bit 1 = 0 (add decimal 0) - Enables xx99 beacon response

MODE 2 Bit 1 = 1 (add decimal 2) - Disables xx99 beacon response

MODE 2 Bit 2 = 0 (add decimal 0) - Transmit enabled

MODE 2 Bit 2 = 1 (add decimal 4) - Transmit disabled. When selected stops user from initiating any Selcalls. Microphone PTT is still active as is "★" key.

MODE 2 Bit 3 = 0 (add decimal 0) - Receive enabled.

MODE 2 Bit 3 = 1 (add decimal 8) - Receive disabled. When selected unit will not respond to any incoming Selcalls, Telcalls or beacon requests.

MODE 3

Bit 3	Bit 2	Bit 1	Bit 0	Decimal	Description
			0	0	Latch Alarm (continuous)
			1	1	Horn Alarm (pulsed for limited time)
		0		0	Audio Alarm
		1		2	Piezo Alarm
	0			0	
	1			4	
0				0	normal mute
1				8	mute released during alarm tones

Valid codes are 0,1 to 3, 8, 9

MODE 3 Bit 0 = 0 (add decimal 0) - Switches alarm relay driver on for duration of main alarm (ringing) - approximately 96 seconds.

MODE 3 Bit 0 = 1 (add decimal 1) - Switches alarm relay driver on intermittently during main alarm period as follows:
00 to 24 seconds - OFF
24 to 48 seconds - ON for 1 second, OFF for 2 seconds
48 to 72 seconds - OFF
72 to 96 seconds - ON for 1 second, OFF for 2 seconds
96+ seconds - OFF

MODE 3 Bit 1 = 0 (add decimal 0) - Enables audio alarm via receiver audio stages.

MODE 3 Bit 1 = 1 (add decimal 2) - Enables audio alarm via microphone piezo alarm.

MODE 3 Bit 3 = 0 (add decimal 0) - Normal mute. Mute (and scanning) is controlled by the "★" key. On power on the mute is OFF (ie receiver is open) each press of the "★" key alternates between Mute ON and Mute OFF.

MODE 3 Bit 3 = 1 (add decimal 8) - Switched mute. Mute is switched off while audio alarms tones are generated. Mute is switched on during silence periods.

MODE 4

Bit 3	Bit 2	Bit 1	Bit 0	Decimal	Description
			0	0	Scan Pulse mode
			1	1	Scan Stop mode
		0		0	Scan auto-reset timer defeat disabled
		1		2	Scan auto-reset timer defeat enabled
	0			0	Codan format - 12 digit phone numbers
	1			4	Codan format - 16 digit phone numbers
0				0	
1				8	

Valid codes are 0, 1 to 7

MODE 4 Bit 0 = 0 - Selects scan pulse mode. Scan pulses are 100ms active low every 625ms (ie 8 scan pulses in 5 seconds). These Scan pulses may be used to pulse the "CHANNEL UP" line available on many transceivers. By using this method the SC2 can control the scanning of channels by the radio.

MODE 4 Bit 0 = 1 - Selects scan stop mode. Scan line goes low when Mute is OFF (stop scan) and goes high when Mute is ON (scan enable).
Scan line also goes low during the reception of Selcalls and the transmission of any responses as well as for duration of main alarm tones (ringing) - approximately 96 seconds - then goes high again. This line may be used to as a signal to many radios to stop scanning.

MODE 4 Bit 1 = 0 - Auto-reset timer defeat disabled. When selected does not allow the defeating of the auto-reset timer for scanning

MODE 4 Bit 1 = 1 - Auto-reset timer defeat enabled. When selected allows the auto-reset timer to be defeated temporarily by entering "#5" from the keypad. The timer will stay inactive until the defeat is cancelled by either going into Mute ON (by using the "★" key) or switching power off and on again.

MODE 4 Bit 2 = 0 (add decimal 0) - limits Codan format Telcalls to a maximum of 12 digit telephone numbers.

MODE 4 Bit 2 =1 (add decimal 4) - limits Codan format Telcalls to a maximum of 16 digit telephone numbers.

MODE 5

Bit 3	Bit 2	Bit 1	Bit 0	Decimal	Description
			0	0	Scan Auto-on timer
			1	1	Scan Auto-on timer = 1 minute
		0		0	Scan Auto-on timer
		1		2	Scan Auto-on timer = 2 minutes
	0			0	Scan Auto-on timer
	1			4	Scan Auto-on timer = 4 minutes
0				0	Scan Auto-on timer
1				8	Scan Auto-on timer = 8 minutes

Valid codes are 0, 1 to 9

MODE 5 Code 0 - Switches scan auto-reset timer OFF. Unit will start scanning when Mute is ON and stop scanning when Mute is OFF.

MODE 5 Codes 1 to 9 - Switches scan auto-reset timer ON. Unit will start scanning when Mute is ON. If Mute is OFF unit will auto-start scanning (and switch Mute ON again) after a preset period. This period is the number of minutes selected by the code (ie. 1 minute to 9 minutes).

Note: Auto-reset timer can be defeated by the timer cancel ("#5") command if this option is enabled (see Mode 4 Bit 1). Timer defeat will stay in operation until unit is placed back into Mute by the "★" key or until unit is switched off and back on again.

Using the SC2 Microphone Selcall unit

To send a Selcall

- enter four digit Selcall number
- press "#"
- press "#"

To send a Telcall

- enter four digit Selcall number
- press "#"
- enter telephone number
- press "#"

To send Selcall beacon request

- enter four digit Selcall number
- press "#"
- press "★"

To send xx99 beacon request

- enter four digit Selcall number (must end in 99)
- press "#"
- press "#"

To repeat a call or recall a caller

- press "#"
- press "#"

To send a hang up command (to station last called)

- press "#"
- press "8"

To select WA2 format (if allowed)

- press "#"
- press "1"

To select Barrett format (if allowed)

- press "#"
- press "2"

To select Codan format (if allowed)

- press "#"
- press "3"

To switch off auto-scan timer (if allowed)

- press "#"
- press "5"

Notes

Auto-scan reset timer (if selected) is re-enabled when selecting mute ON.
Mute is switched ON by pressing the "★" key. Can be switched OFF by pressing the "★" key or PTT.
Alarms can be cancelled by pressing the "★" key or PTT. This automatically turns mute OFF.

Alarm Tones

Alarm	Audio alarm sound	Piezo alarm sound
Key press	short high pitched tone	short beep
Error	long low pitched tone	long beep
Acknowledge	three short high pitched tones	three short beeps
Mute on	low to medium tone	long warbling beep
Mute off	medium to high tone	two short warbling beeps
Selcall received	one long telephone ring (one second) every 3 seconds	one long warble (one second) every three seconds
Telcall received	two short telephone rings every three seconds	two short warbles every three seconds
Background Selcall alarm	one short beep every five seconds	one short beep every five seconds
Background Telcall alarm	two short beeps every five seconds	two short beeps every five seconds