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Find the *Communications Specialists / Selectone ST-809B* at our website: *Click HERE*

Selectone
PRODUCT GROUP

New Product Bulletin

ST-809B Miniature DTMF Decoder

DESCRIPTION



The new Selectone ST-809B is a miniature, universal DTMF decoder module designed for operation over any voice grade circuit such as radio, microwave, or telephone lines. Compatible with the widely used DTMF (Touch-Tone®) signalling format, the ST-809B is typically used for mobile radio paging, selective calling, or remote control applications.

Due to its small size (1.34"L x 0.85"W x 0.21"H), the ST-809B is ideally suited for installation in portable and mobile two way radios. The ST-809B will respond to an address code of 1 to 7 digits in length, using any of the 16 DTMF characters. Because there are no restrictions in the use of repeated digits, this provides more than 250 million unique address codes.

FEATURES

- **Compact Size —** for easy mounting in many popular radios.
- **PC Programmable —** using Selectone Product Manager™ Software.
- **1 to 7 Digit Address Codes —** over 250 million unique addresses.
- **Remote Control Function —** provides three latched and/or interlocking outputs for a wide variety of remote control applications. Includes telemetry function to confirm status of outputs.
- **Transpond Acknowledgment Tone —** provides audible confirmation that the call was received.
- **Alert Tone —** alerts user of an incoming call.
- **Radio Kill Function —** to remotely disable a non-paying customer or lost or stolen radio.
- **Individual/Group/All Call —** for maximum selective calling flexibility.
- **Multiple Outputs —** for most selective calling and remote control applications.

OPERATION

In a typical mobile radio selective calling application, the ST-809B will mute the radio to block out unwanted channel traffic while awaiting a call. When the correct DTMF address code is received, the ST-809B provides a latched output to un-mute the radio, a momentary output to activate a buzzer or vehicle horn, and an additional latched output to activate a "call" lamp or LED. In addition, the ST-809B provides a transpond acknowledgment tone to confirm receipt of the call and an alert tone output for local user alerting applications.

The ST-809B supports individual, group, and "all call" applications for maximum selective calling flexibility. A "radio kill" function is also provided to remotely disable a lost or stolen radio. The status of this function is stored in a non-volatile EEPROM and may be re-set over the air by the servicing dealer or fleet manager.

For remote control applications, the ST-809B provides three separate open collector control outputs which may be toggled on or off individually or interlocked in two different modes. Whenever any remote control output is turned on or off, the ST-809B generates a transpond tone to confirm operation.

PRODUCT MANAGER SOFTWARE

Like most Selectone products, the ST-809B is PC programmable using the Selectone ST-809PM Product Manager software. Product Manager is available in both Windows and DOS versions and may be ordered from the factory or downloaded from the Selectone Website by clicking here.

APPLICATION NOTES

Application Notes with detailed installation instructions for a wide variety of mobile radios are available free of charge by clicking here. For further applications assistance, contact the Selectone Technical Support Department at (714) 998-3021, or by e-mail at sales@com-spec.com.

PC PROGRAMMING KIT

The ST-954 Programming Kit is required for programming the operating parameters of the ST-809B. The ST-954 kit consists of three items: a ST-954B Programming Adapter which interfaces between a PC and the ST-804A encoder; a 6' RS-232C serial cable assembly; and a DB9 to DB25 adapter plug. The ST-954 kit may be used to program most Selectone products.

ST-809B OPERATING SPECIFICATIONS				
PARAMETER	**MIN**	**TYPICAL**	**MAX**	**UNIT**
Power supply voltage	5.5		25	V dc
Power supply current			7	mAdc
Open collector output (sink current)			80	mAdc
Call Lamp output current (sink or source)			80	mAdc
Temperature range	-30		+60	°C
DTMF input (HI range)	30		850	mV RMS
DTMF input (LO range)	10		280	mV RMS

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Signal to noise ratio	12			dB SINAD
DTMF twist			±10	dB
Digit recognition time	20			mS
Interdigit time	50		5000	mS
Decode time*	0		1	Interdigit time
Decode Momentary time	0.050		9999	Sec.
Transpond/Alert tone level			5	V p-p, no load
Transpond duration		2.34		Sec.
Transpond Tone Freq.		874		Hz
Alert Tone Freq.		528		Hz
Call Lamp Flash (50% duty cycle)	100	500	999	mS
Interconnect Type	13 pin miniature low profile connector			
Size	1.34"L x 0.85"W x 0.21"H (34.0mm x 21.6mm x 5.33mm)			
* Measured from the end of the last DTMF character in the sequence				
Specifications and descriptions subject to change without notice				

[Return to home page]

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Revision 6/30/99
Last updated August 06, 1999

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