

Selectone

ST-050SAB

APPLICATION NOTE # 0316

FOR USE WITH : Motorola Saber

APPROVAL DATE: 3DEC97R BY: JFO/RTS

CONNECTIONS

Note	Pin #	ST-050 Function	Wire Color	Host Radio Connection
	3	(+) Supply	Red	P1 / J1 Pin 4
	9	(-) Supply	Black	U203 Pin 13
2,3,	11	Rx Audio Input	Blue	Junction C14 & U100 Pin 34
2,3	1	Rx Audio Output	Wht/Blu	Junction C14 & U101 Pin 8 & 9
4,5	12	Tx Audio Input	Green	Junction C23 & U102
4,5,6	13	Tx Audio Output	Wht/Grn	Junction R17 & C23
7,8,9	6	PTT Input	Yellow	P2 / J2 Pin 2
7,8	10	PTT Output	Blk/Yel	P2 / J2 Pin 2
7,8,10	7	Monitor/Clear/Ciphered	Brown	Junction R805 & R804
	8	Amp. Enable	Blk/Brn	Not Used
	5	COS	Blk/Org	P1 / J1 Pin 8
	2	RS-232 Input	Violet	Used for setup only
	4	RS-232 Output	Wht/Org	Used for setup only

Notes:

1. Remove C14 in the radio
2. Make connection at available solder pad of C14
3. R2 on the ST-050 has been changed to a .1uF cap.
4. Remove R17 & C23 in the radio. Put C23 in the R17 position
5. Make connection at the available solder pad of C23
6. R4 on the ST-050 has been changed to a 10K resistor.
7. Remove C406 and R416 in the radio.
8. The PTT & Monitor switches on the Saber are unique.
9. R3 on the ST-050 has been changed to a 100K resistor.
10. A 100 K resistor has been connected between pin 7 and +5Vdc on the ST-50.
11. Locate the ST-050SAB under the speaker shield directly above the speaker, with the connector away from the Monitor & PTT buttons. Dress the wires to the opposite side of the radio under the shield via the two wide spots between the radio PCB and the radio top. Be carefull of pinched wires.

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Configuration Settings for Product Manager

The following settings, with most recent updates is available as XXXXXXXX.SPM from the Selectone web site www.selectone.com.

Operating Mode Tab

Tx PowerUp Mode		Ciphered	√	Clear
Functional Rx Conditions	√	Ciphered	√	Clear
COS (Carrier Operated Switch)	√	Active Low		Active High
User Code Key Selection	√	Double Click		Toggle
PTT Input		Active Low	√	Common PTT
PTT Output	√	Active Low		Active High
Special Functions	√	Amp. Enable		Special PTT In/Out
Missed Sync Reset 5			√	Power Save
Initial Synchronization Delay				System Related

Audio Levels Tab

Receiver Input Level	1002			
Receiver Output Level	1002			
Microphone Input Level	1002			
Microphone Output Level	1002			
Synchronization Level	• 3dB	9dB	15dB	21dB
<i>Internal Squelch Detection</i>			<i>Enable</i>	