

Trouble Shooting Guide



Customer service

SMX-4000 Series

The troubleshooting information in this document is taken mostly from the repair logs of Maxon Electronics Australia Pty Ltd. The most common components that have been replaced are listed first.

	SYMPTOM	CHECK THIS
RADIO WIDE	EEPROM Error: ER:01 indicates no program in the radio or the radio has a faulty EEPROM.	Check Programming and reprogram if necessary. If reprogramming does not help then the EEPROM may need to be replaced.
	Programming Error: ER:02 is caused by a problem with the programming of the channel data.	Check programming information and reprogram the radio.
	PLL Out of Lock: ER:03 error occurs when the PLL cannot lock onto the appropriate frequency.	SMX-4150: IC108, C277, C310, C276, D122, D123, IC106 and Q109 SMX-4450: Q118 and TC13
	Dead: No power or no operation.	SMX-4150: Fuse and IC105 SMX-4450: Fuse, C230, D13, and VR2
	Receive and Transmit: This is a problem that effects both receive and transmit.	SMX-4150: IC1, VR1 and VR2 SMX-4450: IC102
	Display: Display does not show or shows incorrectly	T101, Display, IC107, IC1, and L102 SMX-4150: X2 SMX-4450: X1
	Programming : The radio was in good working order prior to re-programming, but now indicates the PLL is out of lock (after reprogramming).	Incorrect selection of the frequency band which the radio was designed for, or incorrect selection of the channel step.
RECEIVE	RX Sensitivity Low: Problem that causes desensitisation of the receiver.	SMX-4150: T8, T9, CF1 and X1 SMX-4450: T1, T2, T3 and T6
	RX Audio: Receive audio is distorted or non-existent.	SMX-4150: T8, T9, IC5, VR2, VR1, Speaker, T10 and HPF SMX-4450: T10, VR2, VR1
TRANSMIT	TX Encode Problem: Radio may transmit voice but not CTCSS or DCS	RV3 SMX-4150: C224 and C239 SMX-4450: C248 and C242
	TX Frequency Error: Transmit frequency cannot be aligned to spec	TC12 SMX-4150: X3, TC6 and TC7
	TX Power None: Radio does not have any power out and may not go into transmit mode.	Q12, Q11 and Q13 SMX-4150: D116 SMX-4450: D119