

AR7030 technical bulletin 008

Problem:

Absence of audio on all SSB modes and synchronous AM

Symptoms:

The set has very low audio on the following modes: *USB, LSB, CW, DAT, and synchronous AM* (for synchronous AM this is only true when the set has locked and the “sync” legend is displayed). *The S meter will read as normal.*

Reception will be normal in AM and FM modes.

Explanation:

The carrier oscillator has stopped. If required this can be confirmed by looking on pin 14 of Q 41 (4046). In a working set expect a signal of about 1 V peak to peak at this point in all SSB modes.

Cause:

Fractured joints on the carrier DDS IC Q 47 (HSP45102-SC33). This occurs because the die cast box over this part of the circuit stresses the board if the set receives an impact shock during transit. This can produce stress fractures in the soldered joints which then may subsequently fail.

Remedy:

Remove the larger of the two die cast boxes. You will often find that simply removing the die cast box causes the set to start working again, confirming the fault is in this area. Re solder pins 11, 12, 13, 14, 15, 16, 17 and 18 on Q 47 and check the set thoroughly after the die cast box has been screwed back onto the board.

