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RELATED DOCUMENTS:
C/R

VCO 2 Unlock in 9323 and 9360 series transceivers

1. Introduction

9323, 9360 and 9360-30 transceivers fitted with version 4.10 software are likely to suffer VCO2 (Voltage Controlled Oscillator) unlock problems under certain conditions. The modification described in this Service Bulletin overcomes this.

The modification should be performed if;

a) VCO2 unlocks as described in section 3

or

b) If the transceiver is fitted with version 4.10 software AND the Serial Number is not specified below

2. Serial Numbers

The modification detailed in this Service Bulletin has been incorporated into transceivers with the following Serial Numbers.

9323.	D0311, D0312, and D0464 onwards
9360.	D0108, D0133, D0296, D0297, D0298, and D0307 onwards
9360-30	D0235 onwards

3. Details

The VCO unlock condition will occur under one or more of the following conditions,

- Power Up
- An interruption to the power supply causing the transceiver to reset (such as cranking of a motor)
- High Humidity

The unlock error can be temporarily cancelled by turning the radio OFF and then back ON. To prevent re occurrence, the following modification must be done.

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4. Modification

WARNING

If a 9323/9360/9390 Technical Service Manual is to be used to do this modification, observe the following precaution.

The overlay diagram 08-04962-001 shows the position of R72 and R74 transposed. The correct position of R74 is adjacent to C248 and test point +5VB.

The silkscreen on the Receiver Exciter Assembly is CORRECT.

4.1 Tools required

- Pozidrive screwdriver (1 point)
- Soldering Iron
- Side Cutters
- Small pliers

4.2 Materials required

- 1 x 1K Ω , 0.25 watt, (CR25) resistor
- Tinned Copper Wire
- 60/40 Tin/Lead resin core solder

4.3 Procedure

1. Disconnect power from the transceiver and remove from the installation.
2. Remove the top cover.
3. Referring to the diagram, locate the position of R73 and R74. (Neither of these resistors are fitted).

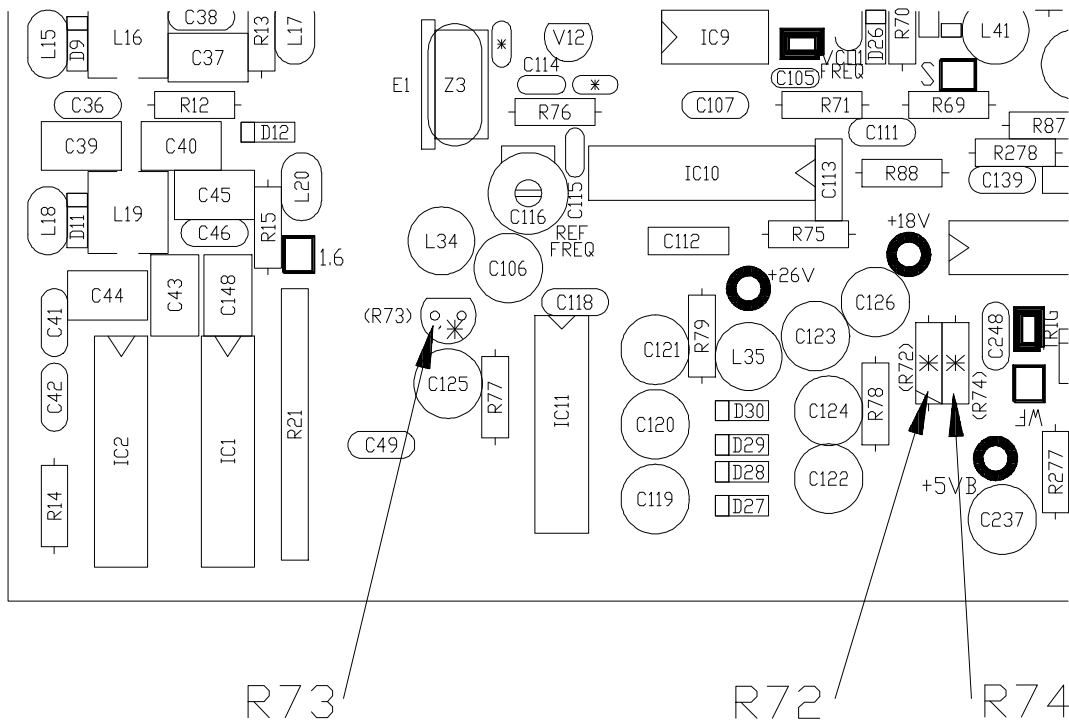


Figure 1: Position of R73 and R74 (Bottom Left Hand Corner of 08-04962)

4. Remove the Receiver Exciter assembly from the chassis.
5. Using tinned Copper Wire (TCW), fit and solder a link into the holes marked R73. Trim excess lead length.
6. Fit and solder the 1K Ω resistor into the holes marked R74. Trim excess lead length.
7. Fit and secure the Receiver Exciter assembly into chassis.
8. Refit plugs ensuring correct placement and orientation.
9. Fit top cover
10. Reinstall
11. Connect power.