

# REVISION HISTORY

Refer to the DCA and associated markups for a complete description of the changes incorporated in a revision.

| REV | DCA    | DATE   | DRAWN            | CHECKED        | APPROVED         | PUBLISHED    |
|-----|--------|--------|------------------|----------------|------------------|--------------|
| A   | W10780 | 1-6-11 | Jennifer Johnson | Hank Schnieder | Jennifer Johnson | Linda Andujo |
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TEMPLATE 150-744545-01 REV. C



Chelton Avionics, Inc.  
*dba Wulfsberg Electronics Division*  
 Prescott, AZ

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DOCUMENT TITLE  
**SERVICE NOTIFICATION WSN  
 RT-5000-40 DSP BOARD U4 VERIFICATION**

|                  |                       |   |                 |
|------------------|-----------------------|---|-----------------|
| SIZE<br><b>A</b> | LRU<br><b>RT-5000</b> | DOCUMENT NUMBER<br><b>150-043301-40</b> | REV<br><b>A</b> |
|------------------|-----------------------|---|-----------------|

Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona.

SCALE: NONE      DO NOT SCALE DRAWING



# SERVICE NOTIFICATION

**EQUIPMENT: RT-5000**

**DATE: 01-06-11**

**SERVICE NOTIFICATION NUMBER: WSN RT-5000-40**

**Revision A**

## **EFFECTIVITY**

Affects PN 400-015525-xxxx identified with SN 68790 or below.

Units with serial numbers above 68875 met compliance at the time of manufacturing.

## **REASON**

Counterfeit parts have entered our supply chain and have possibly been installed in the RT-5000 causing degraded audio.

## **DESCRIPTION**

Test U4 (PN 106-716862-02) pin 15 on the DSP module (PN 300-016260-0XXX) to ensure the clock signal is the correct polarity. If part is found to be operating incorrectly, replace with non-counterfeit part.

## **COMPLIANCE**

As required.

## **WARRANTY INFORMATION**

Units still in the warranty period may be returned for installation of this modification under the terms of the warranty agreement. Units should be sent to:

Wulfsberg Electronics  
Attn: Repair and Overhaul Department  
6400 Wilkinson Drive  
Prescott, Arizona 86301

## **APPROVAL**

This modification does not affect the original approval.

## **MANPOWER**

Not applicable.

## **REFERENCES**

RT-5000 Maintenance Manual, P/N 150-041121 (Analog) or PN 150-041459 (Digital)

## **CAUTION**

ANY DISASSEMBLY/ASSEMBLY OF THIS UNIT MUST BE DONE AT A STATIC SAFE WORKSTATION. REMOVED MODULES SHOULD BE PLACED IN ANTISTATIC BAGS WHEN NOT INSTALLED IN THE UNIT.

Open the RT-5000 and gain access to the DSP module (PN 300-016260-0XXX) per the Maintenance Manual. Perform the following modification:

Note: Unless otherwise noted, the sequence of rework can be adjusted to facilitate the process.

Using an oscilloscope, look at pin 14 (L/R signal) and set this as the triggered waveform, as shown on Channel 1 in Figures 1 and 2. Look at pin 15 (SCLK signal) as the secondary trace. When L/R (Pin 14) changes, it should match up with a rising edge of the SCLK (Pin 15) signal. If it does not, the part is defective and needs to be changed. Also ensure that the SCLK signal is consistent in frequency – that all periods are spaced identically and the spacing doesn't change from one period to the next.

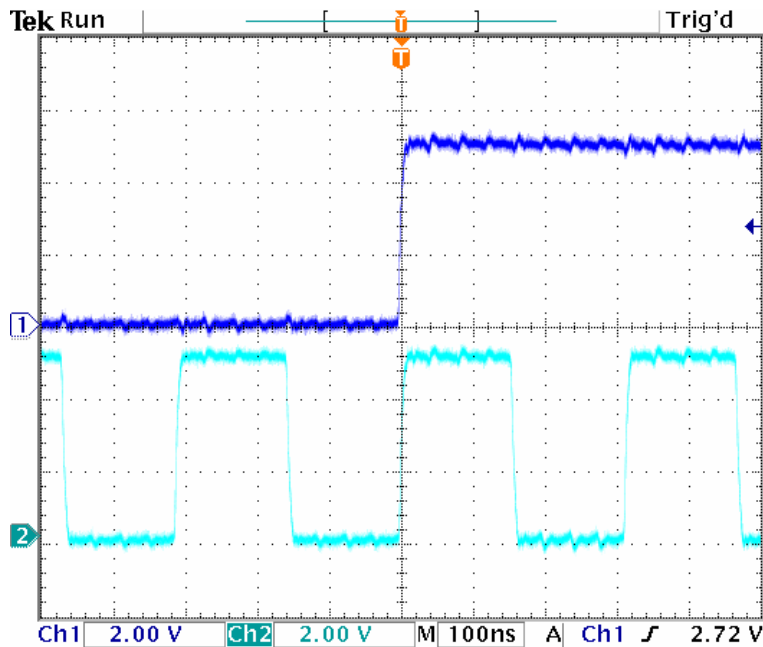


Figure 1: Correct Waveform – Note that Channel 1's rising edge correlates to a rising edge on Channel 2.

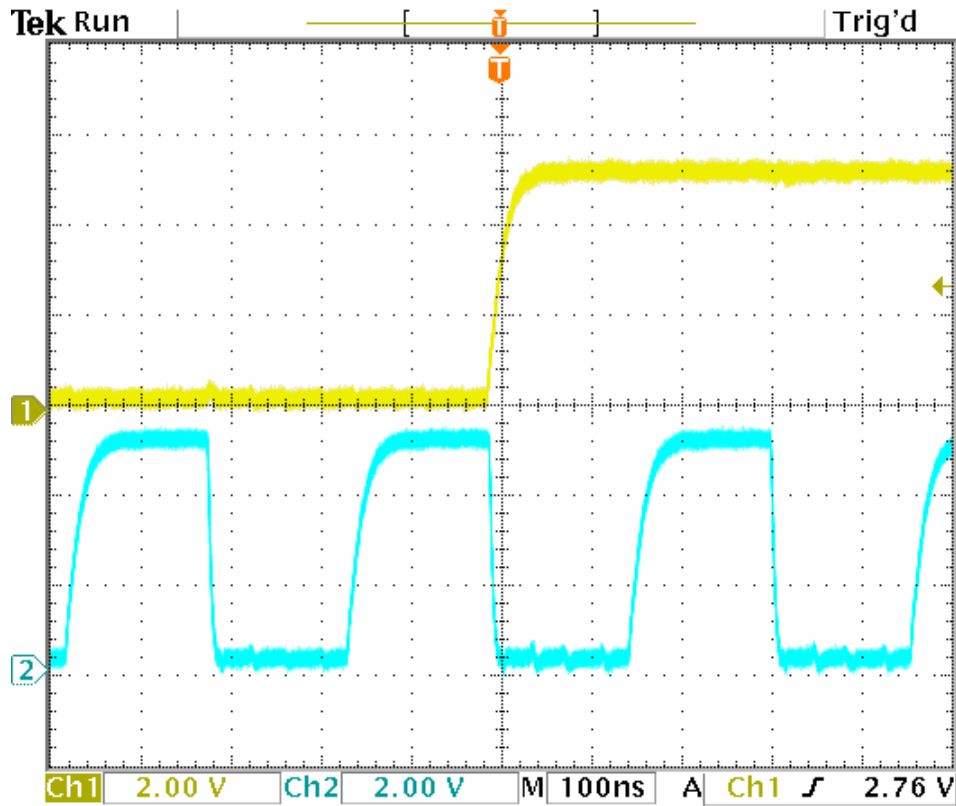


Figure 2: Incorrect Waveform – Note that rising edge on Channel 1 correlates to a falling edge on Channel 2.

### **TESTING PROCEDURE**

Perform a complete functional test of the unit in accordance with the appropriate Maintenance Manual Return to Service procedure.