

# 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
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TEMPLATE 150-744545-01 REV. C



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 Prescott, AZ

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DOCUMENT TITLE  
**SERVICE INSTRUCTION WSI DF-431B-18  
 IMPROVE MISMATCH AND  
 RADIO SENSITIVITY**

SIZE <b>A</b>	LRU <b>DF-431B</b>	DOCUMENT NUMBER <b>150-043453-18</b>	REV <b>A</b>
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Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona.

SCALE: NONE

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# SERVICE INSTRUCTION

**EQUIPMENT: DF-431B**

**DATE: 08/11/11**

**SERVICE INSTRUCTION NUMBER: WSI DF-431B-18**

**Revision A**

## **EFFECTIVITY**

Affects PN 066-1105-XX identified with SN 75822 or below.

Units with serial numbers above 75822 met compliance at the time of manufacturing.

## **REASON**

This WSI is only applicable to units that exhibit more than 0.5 degrees offset when changing from high field strength (1000uV/m) to lower field strength (100uV/m) AND have a transformer (T3) on the Receiver Board (200-07590-0000) that does not have "Toko" on the lid or a sticker with p/n 118-243436.

## **DESCRIPTION**

This Work Instruction applies to the DF-431B Receiver Board (200-07590-0000) and requires changing a capacitor value (C71) and reworking a transformer (T3).

## **COMPLIANCE**

As required.

## **WARRANTY INFORMATION**

This modification is an enhancement and is not covered under warranty.

## **APPROVAL**

This modification does not affect the original approval.

## **MANPOWER**

Not applicable.

## **REFERENCES**

DF-431B Maintenance Manual, P/N 150-040991, 150-040992 or 006-05910-0008

## **MATERIAL INFORMATION**

The parts required to modify this unit in accordance with this procedure are available from Wulfsberg Electronics at (928) 708-1518.

## **PARTS REQUIRED**

<b>ITEM</b>	<b>QTY</b>	<b>U/M</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>REF</b>
1	1	EA	109-00025-0010	Cap, Mono-Ceramic 47pF	C71
2	1*	EA	118-243436	Transformer, Variable	T3

\* Will only need p/n 118-243436 (Transformer) if use Option 1 below.

## **MODIFICATION PROCEDURE**

### **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 DF-431B and gain access to the Receiver module (PN 200-07590-0000) per the Maintenance Manual. Perform the following modification:

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

1. Remove C71 from Receiver board shown in
2. Figure 1.
3. Replace C71 with Item 1.
4. Replace or rework T3 .
  - a. Replace T3 (Option 1)
    - i. Remove T3.
    - ii. Install Item 2
  - b. Rework T3 ( Option 2)
    - i. Remove T3, and rework as follows:
    - ii. Remove metal cap from transformer.
    - iii. Remove plastic cap from transformer, release both locking tabs on the sides of the transformer.
    - iv. Unsolder transformer wire from Pin 3 shown in Figure 2.  
\*\*Ensure only the transformer wire is removed from Pin 3 (copper color), a silver wire leading up and through the transformer to a capacitor underneath is also present, do not remove this wire.
    - v. Remove 3 turns from center post in a counter clockwise direction when viewed from above.
    - vi. Wrap wire twice around base of Pin 3, solder wire in place.
    - vii. Inspect workmanship to IPC-A-610
    - viii. Replace plastic cap ensuring locking tabs seat properly.
    - ix. Replace metal cap.
    - x. Identify the reworked part by labeling the side of the metal cap with the part number 118-243436.(This can be done by physically writing the new part number on the component or using a standard address label and a word processing program to print out a label that will fit; the label may need to be trimmed.)
    - xi. Solder reworked part back into receiver board at T3 location shown in Figure 1.

5. Apply MIL-I-46058C compliant conformal coating to newly installed parts.
6. Identify the unit with the procedure as described and reassemble the unit in reverse order of disassembly.

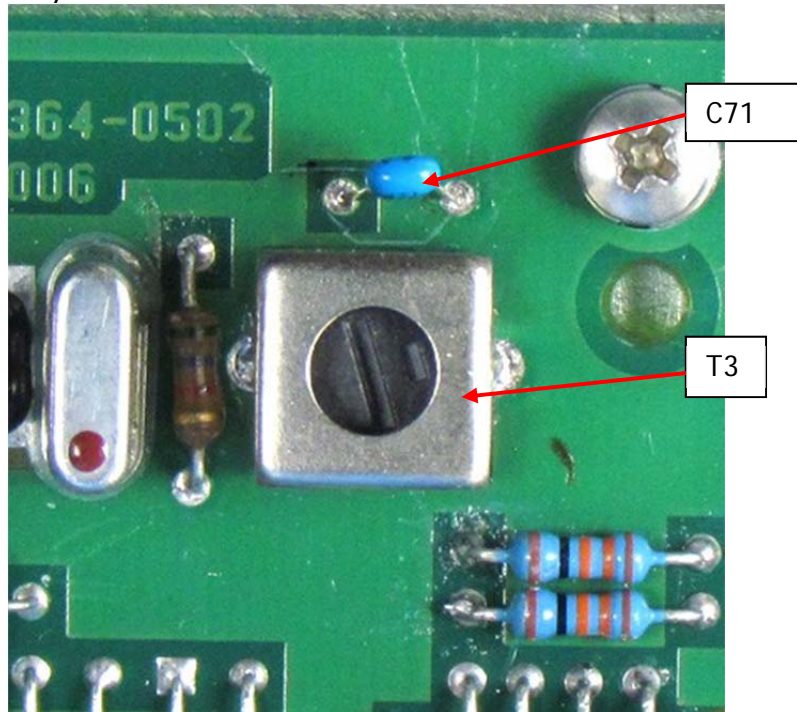


Figure 1

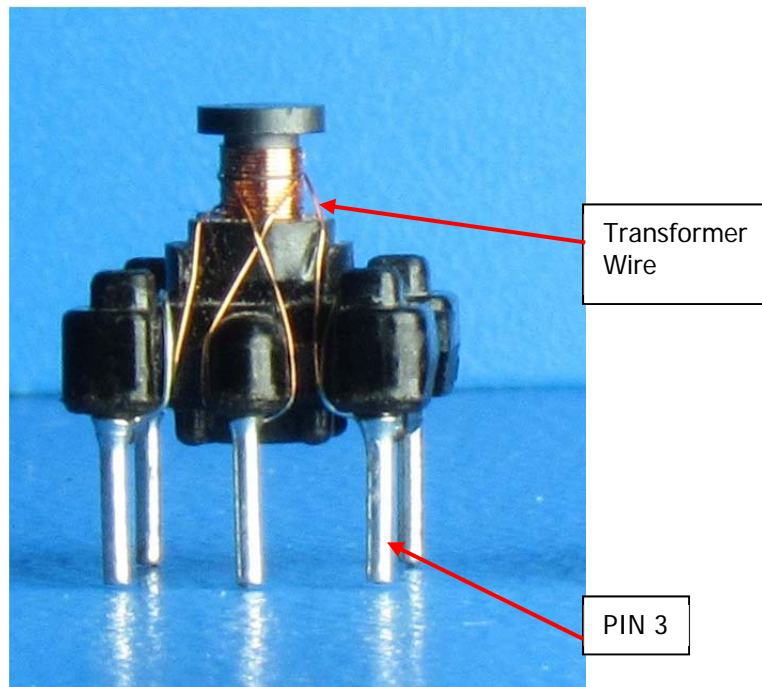


Figure 2

### **IDENTIFICATION PROCEDURE**

Mark 'WSI-18' on the Receiver board (200-07590-0000)

### **TESTING PROCEDURE**

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